

# Insurance Forum Japan 2019

Venue: Shinagawa Prince Hotel, Tokyo



Innovation for Wellbeing

SOMPO RISK MANAGEMENT

Contribution to Building a Resilient Economy  
~ Representing the General Insurance Association of Japan (GIAJ) ~

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Sompo Holdings, Inc.  
Sompo Japan Nipponkoa Insurance Inc.  
Sompo Risk Management Inc.

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How can insurance industry contribute to building economies that are resilient to climate change in the context of filling the protection gap and investing in infrastructure projects to pay due attention to its impact on environment?

1. **Activity of the General Insurance Association of Japan in 2018 – 2019 (for reference)**
2. **Disaster in Japan**
3. **Contribution to the reconstruction**
4. **Examples of contribution to tackling with natural disasters**
5. **Risks and Investment Return (need to well-balanced)**



# Activity of the General Insurance Association of Japan in 2018 - 2019

Whilst uncertainty over global economic prospects is rising, digitalization is changing the fundamental structure of the industry. As a result, the environments surrounding individuals and corporations are also expected to go through dramatic changes. Since last April, the GIAJ has steadily been implementing its Eighth Mid-Term Business Plan with particular focus on contributing to the realization of SDGs and "Society 5.0".

- (1) Contributing to the realization of a sustainable society (achieving SDGs)
  - (i) SDGs Forum
  - (ii) Responding to natural disasters
    - a. 'Exploration for Disaster Prevention'
    - b. Disaster prevention initiatives
      - On March 2nd and 3rd, the GIAJ participated in the "Outdoor Festival", an outdoor exposition event held Osaka Expo Commemoration Park. The GIAJ set up a booth
      - On February 9th, we took part in a special TV program on natural disaster prevention.
- (2) Contribution to the realization of "Society 5.0"
  - (i) Measures to address advances in self-driving technology
  - (ii) Response to emerging risks and enhancement of cybersecurity
  - (iii) Measures on harmonization, standardization and enhancement of the operational efficiency of our industry
- (3) Support to the Task Force on Climate-related Financial Disclosures (TCFD)

# Disasters in Japan

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**In the last decade several severe natural disasters have hit Japan, creating significant economic strain on the country.**

- ◆ We recognize it might be difficult to provide general insurance stably due to the natural catastrophes such as typhoons, floods, heavy rains and insurance payment for that and increase of insurance premiums.
- ◆ We also recognize that social expectations to non-life insurance industry for contribution to the realization of sustainable society through providing activities which could benefit to prevent or reduce damage from natural disasters as the risks of natural disasters are getting bigger.
- ◆ Growing number of major earthquakes and eruptions, as well as increasingly fierce typhoons and heavy rains have hit Japan in recent years. We have contributed to the reconstruction of people's lives and businesses of those who suffered damage from the disasters by quickly making claim payments to them.

# Disasters in Japan

## Multiple and large scale disasters hit Japan in 2018

- Northern Osaka Earthquake (in June)(M 6.1)
- July torrential rainfall (in July) (Heavy rain in western Japan)
- Typhoon No.21 (in August) (Jebi)
- Hokkaido Iburi earthquake (in September) (M6.7)
- Typhoon No.24 (in September) (Trami)

( The claim number has gone over more than the Great East Japan earthquake in March 2011 )



Source: Sompo Japan Nipponkoa Insurance Inc.

	Year 2018	Number of claim payments	Total amount of claim payments (in millions of yen)
1	Northern Osaka Earthquake (in June)	144,129	103,320
2	July torrential rainfall (in July) (Heavy rain in western Japan)	55,320	195,595
3	Typhoon No.21 (in August) (Jebi)	857,284	1,067,806
4	Hokkaido Iburi earthquake (in September) (M6.7)	46,596	33,823
5	Typhoon No.24 (in September) (Trami)	412,707	306,091
	Total	1,516,036	1,706,635
※	Great East Japan Earthquake 2011	752,249	1,208,107

Source: The GIAJ News Release

1, 4 : (2018.12.20 released) 2,3,5 : (2019.5.20 released) ※ : (2021.12.1 released)

# Contribution to the reconstruction

- ◆ Through making swift claim payments, the general insurance industry did its utmost to help victims put their lives back in order and to assist the affected areas in their recovery and reconstruction.
- ◆ In tandem with the risk of natural disasters hitting our land becoming ever higher, people's expectations of the general insurance industry to contribute to the realization of a sustainable society through advancing risk management and pursuing risk prevention and mitigation are becoming ever greater.
- ◆ Based on solid intelligence regarding risks and supported by our determination and pride in being part of the general insurance industry, the GIAJ will continue to respond appropriately to various societal changes. By providing coverage and services that contribute to building a safer, more secure society, we are committed to helping our industry fulfill its role of supporting Japan as an integral part of the nation's social infrastructure.



# Examples of contribution to tackling with natural disasters

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## Japanese Earthquake Insurance System

The Earthquake Insurance is an insurance product exclusively for earthquake disasters. It indemnifies against damage caused by fire, destruction, burying or washing away, resulting from an earthquake or volcanic eruption or from a tsunami following either of these events. For the purpose of stabilizing the livelihoods of the affected by earthquakes, the government reinsures the earthquake insurance liabilities underwritten by private insurance companies. Reinsurance premiums are collected and managed separately in the Special Account for Earthquake Reinsurance. Reinsurance claims are paid out to private insurance companies at the time when massive earthquakes occur. The Earthquake Insurance covers buildings for residential use and household goods.

## Disaster Prevention / Reduction Expenses Insurance

An insurance product for local governments that compensates for costs relating to evacuation in natural disasters. The insurance mainly covers the cost of setting up evacuation centers, securing daily necessities, and transporting goods, as well as the cost of overtime allowance for government employees. More than 350 local government authorities have already signed up for coverage.

## Weather Index, /Derivatives, /Parametric, Insurance

Index insurance is a relatively new but innovative approach to insurance provision that pays out benefits on the basis of a predetermined index (e.g. rainfall level) for loss of assets and investments, primarily working capital, resulting from weather and catastrophic events. Because index insurance doesn't necessarily require the traditional services of insurance claims assessors, it allows for the claims settlement processes to be quicker and more objective. As an adaptation measure to climate change, insurance company offers insurance products aimed, for example, reducing agricultural business risks associated with extreme weather in developing countries, where agriculture is a key industry that is vulnerable to climate change.

# Risks and Investment Return (need to well-balanced)

Well-designed resilient infrastructure can bring about many benefits including greater economic activity and more adaptable communities. When public funding for infrastructure projects is insufficient, private investment can make up the gap.

- The importance of contribution to the provision of insurance coverage to existing important infrastructure and to the construction of robust and sustainable society through infrastructure investment that could prevent or reduce the damage from disasters as an investor.
- Contribution to the provision of insurance coverage to infrastructure investments as a measure to hedge political risk, business risk, price change risk and physical damage risk by terrorism or natural disasters. As an example of insurance coverage to infrastructure investments, we will introduce our overseas investment insurance.
- Difficult to provide insurance coverage without striking the balance between risk and profitability. Expectation of possible cooperation with private and public sectors to provide insurance coverage to insure these kinds of risks.
- Diversify the risk and secure the profitability of investments for private insurers which are responsible to policyholders (and shareholders, in case of stock company) in considering the investment targets.
- Infrastructure investments should be promoted by decreasing the risk charge in the capital requirement.
- Should be avoided to distort the risk charge based on a political point of view that may threaten insurer's financial soundness by biasing the real risk measurement and insurers' underwriting practices.

Recommendation to government officials and policymakers who yearn for infrastructure investments by insurers to their country about the importance of efforts to make the return on such infrastructure investments more attractive in order to promote them.



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Thank you for your attention

# International trends in climate change and disaster risk prevention (disaster risk prevention)

## 1994 Yokohama Strategy and Plan of Action for a Safer World

- a. Governance
- b. Risk Identification, Assessment, Monitoring and Early Warning
- c. Knowledge Management and Education
- d. Reducing Underlying Risk Factors
- e. Preparedness for Effective Response and Recovery

## Hyogo Framework for Action 2005 – 2015 (Priorities for action)

1. Make Disaster Risk Reduction a Priority
2. Identify, Assess and Monitor Disaster Risks and Enhance Early Warning
3. Build Understanding and Awareness
4. Reduce the Underlying Risk Factors
5. Be Prepared and Ready to Act

## Disaster Risk Reduction

- Risk assessment
- Early warning
- Disaster risk management programs
- Assistance to achieve disaster resilience for developing countries

In the international trends of disaster risk reduction after Yokohama Strategy, disaster risk financing includes actions to reduce losses in lives, economy and financial impact

Source: Data collection survey on climate change and disaster risk financing P30, JICA

## Areas related to Disaster Risk Financing

### Priorities for action 4. 19 k

Promote the development of financial risk-sharing mechanisms, particularly insurance and reinsurance against disasters

## Sendai Framework for Disaster Risk Reduction 2015-2030

1. Understanding Disaster Risk
2. Strengthen Disaster Risk Governance
3. Investing in Disaster Risk Reduction for Resilience
4. Enhance Disaster Preparedness for Effective Response, and to “Build Back Better” in Recovery, Rehabilitation and Reconstruction

## Recognition

Despite the progress achieved in disaster risk reduction and decrease in mortality in the case of some hazards,

- Disasters have continued to cause serious damage and increased economic loss
- Disasters impede progress towards sustainable development
- New risks involved in development are generated

## Areas related to Disaster Risk Financing

### Priorities for action 3. 30 b

Reduce the financial impact of disasters on governments and societies by:

- Disaster risk transfer and insurance
- Risk-sharing and retention
- Financial protection for both public and private investment

### Priorities for action 3. 30 c

Disaster-resilient public and private investments

# Key industries exposed to weather risk (Weather Index Insurance)

- Offering customized weather protection derivatives and (re)insurance products indexed to weather and commodity prices.
- There is increasing interest for structured protection from buyers in a variety of industries exposed to variable weather.

( This customized weather protection derivatives and (re)insurance products indexed to weather and commodity prices started to offer in the late 1990s ).

Sector	Industries exposed to variable weather
<b>Agriculture</b>	Crop yield / quality, handling, storage, pests
<b>Construction</b>	Delays, Liquidated Damages
<b>Energy (Traditional)</b>	Fluctuating demand
<b>Energy (Renewable)</b>	Fluctuating supply
<b>Entertainment</b>	Postponements, reduced attendance
<b>Food &amp; Drink</b>	Reduced demand, increased raw material costs
<b>Governments</b>	Budget overruns, Humanitarian response
<b>Insurance</b>	Increased claims
<b>Manufacturing</b>	Reduced demand, increased raw material costs
<b>Real Estate/Hospitality</b>	Increase energy/premises costs, reduced attendance
<b>Retailing</b>	Reduced demand of weather-sensitive products
<b>Transportation</b>	Budget overruns, delays

## Parametric weather protection and its characteristic

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- **Simple Structures:**

**Triggers based on a single peril or combination of perils**

Temperature, precipitation, snowfall, wind speed, wave height, etc.

- **Claims Process:**

**Swift & Objective**

Publicly-available data typically allows for settlement within ten business days

- **Global Reach:**

**Comprehensive Data Availability**

North America, Europe, Asia Pacific most active...

South America & Africa growing

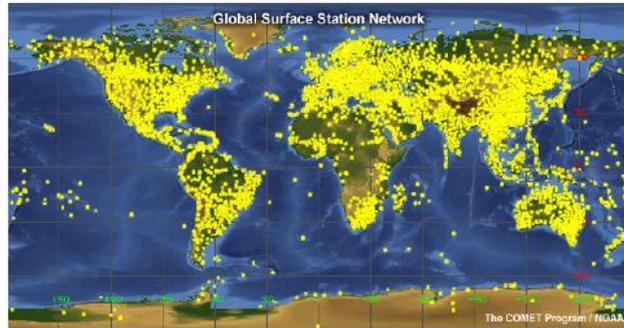
- **Flexible Contract Forms:**

**Indexed (Re)insurance or Derivatives**

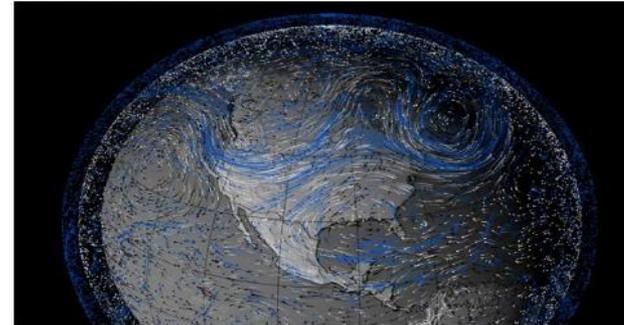
Protection written to suit specific client needs

# 8. Weather Index Insurance: Data required for development

**GROUND OBSERVATIONS**



**SATELLITE DATA**



Source: Sampo International Holdings

**INDEPENDENT, QUALITY-CONTROLLED  
SETTLEMENT DATA**

## Details of data required for the design of weather index insurance products

Risks covered	Examples of weather data (public data)	Examples of data on damage (public data)
Typhoon and wind damage	Wind velocity, locations hit by the typhoon, pathway record, and precipitation	(Example of Agricultural sector) Planting area Yield (by region, crop, and farmer) Crop production cost (by region, crop, and farmer) Amount of decrease (or increase) in yield Amount of damage caused by price fluctuations due to the increase or decrease in yield
Flood	Precipitation, stream flows, and depth of flooding (geographical features)	
Drought	Temperature, precipitation, hours of sunlight, amount of solar radiation	
Cold summer and warm winter	Temperature	
Hail	Precipitation, whether hailstones fall or not, and atmospheric temperature	

# Business continuity management of agricultural business

