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Disaster Risk Financing and Insurance Policies of Japan

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Policies**

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Disaster Risk Financing and Insurance Policies of Japan

APEC Workshop
Disaster Risk Financing & Insurance Policies
21 February 2017

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Outline

- 1. Sendai Framework for Disaster Risk Reduction**
- 2. Quality Infrastructure**
- 3. Disaster Risk Finance and Insurance**
- 4. Experiences of the Recent Earthquakes**
- 5. International Initiative on Disaster Risk Finance and Insurance (DRFI)**

The Sendai Framework for Disaster Risk Reduction 2015–2030

- DRFI is a part of broader Disaster Risk Management agenda composed by Disaster Prevention, Preparedness, and Response.
- Sendai framework was adopted at the Third UN World Conference in Sendai, Japan, in March 2015 as an international guideline to reduce disaster risk with global targets and priorities of actions for 2015-2030.
- Disaster Risk Management strategy and measures of Japan are aligned with this framework.

Four Priorities for Action

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

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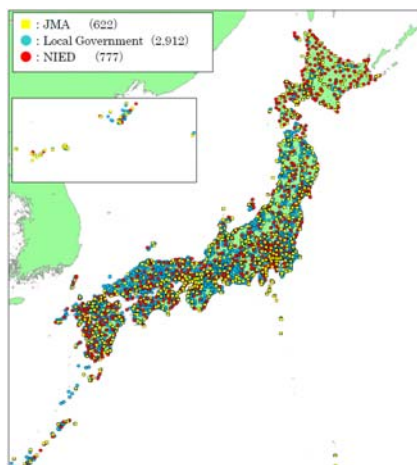
Priority 1. Understanding Disaster Risk

- Case of Japan -

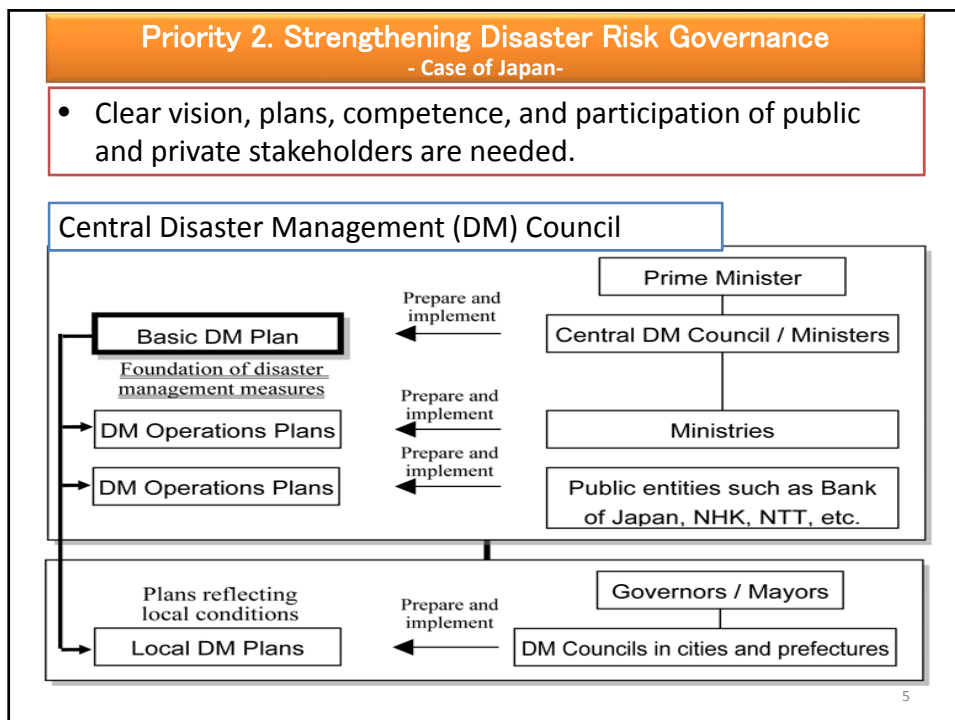
- Understanding of disaster risk is a basis of Disaster Risk Management.
- Risk information should be shared with relevant entities and citizens.

Seismic Observation System

- 4,377 Seismic Intensity Observation Points are located throughout Japan.
- These points enable Japan Meteorological Agency (JMA) estimate the intensity of earthquakes for Early Warning of tsunami and analysis of the risks.



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Priority 3. Investing in Disaster Risk Reduction - Case of Japan-

- Investment in Disaster Risk Reduction is cost-effective and essential to reduce damages and economic losses, as well as save human lives.
- Combine Structural and Non-Structural Measures to enhance resilience of society, economy, and persons.

Structural Measures	Non-Structural Measures
<ul style="list-style-type: none"> • Quality Infrastructure <ul style="list-style-type: none"> – Resilience against natural disaster – Economic efficiency (low life-cycle cost) • River Banks • Shelters 	<ul style="list-style-type: none"> • Hazard Maps • Evacuation Drills

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Priority 4. Enhancing Preparedness and “Build Back Better”

- Case of Japan-

- Preparedness for response in peace time enables prompt and effective response after disaster.
 - Recovery and reconstruction phase is a critical opportunity to “Build Back Better.”
- The next day of 2016 Kumamoto Earthquake, the emergency team in the field was composed by DGs/DDGs in each Ministry, leading to formulation of a supplementary budget plan within ONE month.
- After the Great East Japan Earthquake in 2011, the devastated cities have been “Built Back Better” with more resilient infrastructure and/or relocation of residential areas.



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Quality Infrastructure Investment

- Case of Japan-

- Resilient infrastructure can maintain its functions, and reduce damage and losses even after severe disasters.
- Japan has strengthened standard of disaster resilience for infrastructure such as the building code in light of experiences with a series of disasters.
- Resilient infrastructure such as quake-resistant roads and expressways with parking areas demonstrate multiple functions such as evacuation routes, base stations of recovery operations, and shelters for local residents.
- Developing DRM cycle including regular Maintenance, Inspection, and Repair is also key for resilient infrastructure.

The Sanriku Expressway was built with consideration of tsunami risk.



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Disaster Risk Finance and Insurance of Japan at a Glance

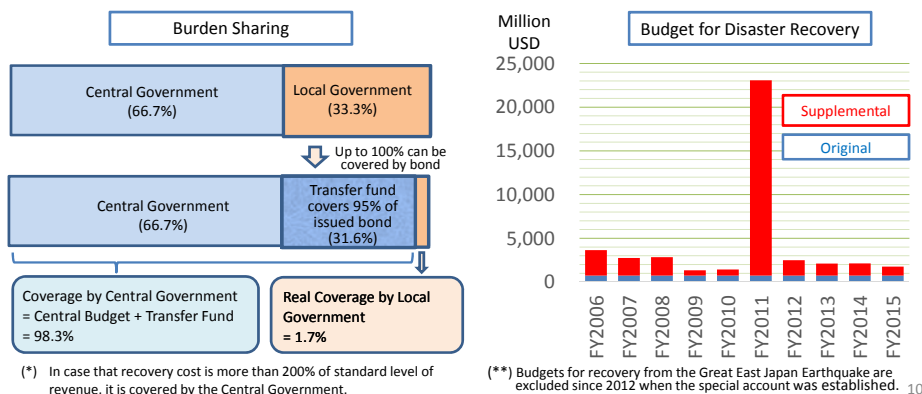
How are the Recovery Costs Covered in Japan?

- Central Government and Local Government Assets
 - Mainly Covered by Supplemental Budgets.
- Infrastructure Assets owned and administered by the Private and Quasi-Public Companies, such as Railroads, Airports and Ports
 - While partly subsidized by the Central Government, Private Insurance covers some of the risk.
- Household Residential Buildings and Assets
 - Earthquake Risk for Household Residential Buildings and Assets is partly shared by the Central Government and the Private Sector.

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Disaster Risk Finance for Public Assets

- 2/3 of recovery cost is covered by the Central Government and 1/3 of the cost is covered by the local governments. However, the local government may face budget constraint of in comparison to potential damages. In case that the local government issues bond to finance it, 95% of the interest and redemption of the bond can be covered by the central government through the Transfer Fund to the local government. In real terms, the local government covers at most around 2% of the recovery cost.
- Local Governments can start recovery operations even before budget assessments by the Central Government.
- While reserving a part of the annual budgets, the Central Government formulates supplemental budgets almost every year, responding to disasters.



Disaster Risk Finance and Insurance for Private Infrastructure

- Since the recovery cost of infrastructure owned by private companies and quasi-public companies, such as Railroads, Airports, and Ports, are not necessarily subsidized by the Central Government, there are companies which subscribe private insurance to cover the disaster recovery costs.
- Even Quasi-public railroad companies, most of which are partly owned by municipality, have been subscribing a group insurance, whose policy holder is the industry association, to reduce and stabilize the premium.

Disaster Risk Insurance of Quasi-Public and Private Infrastructure

Infrastructure type		% of enterprises which subscribe insurance against Typhoon and Flood	% of companies which subscribe insurance against Earthquake
Railroads	large companies	78%	22% (A few use Cat Bond, and/or Commitment line)
	Small-Medium companies	56%	5%
	Quasi-public companies	100%	N.A.
Airport		79%	13%
Port		63%	N.A.

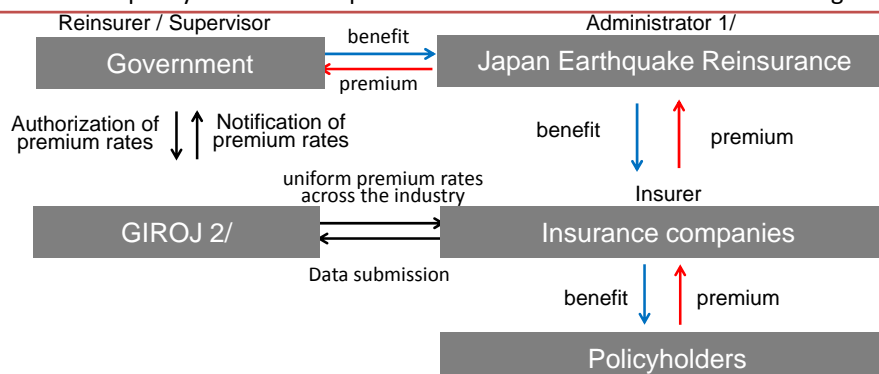
(Source) "Colloquium Vol.13 No.2 2010 autumn," Institution for Transport Policy Studies, 2010 .

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Earthquake Insurance of Japan for Household

- Collaboration between the Government and Insurance Companies -

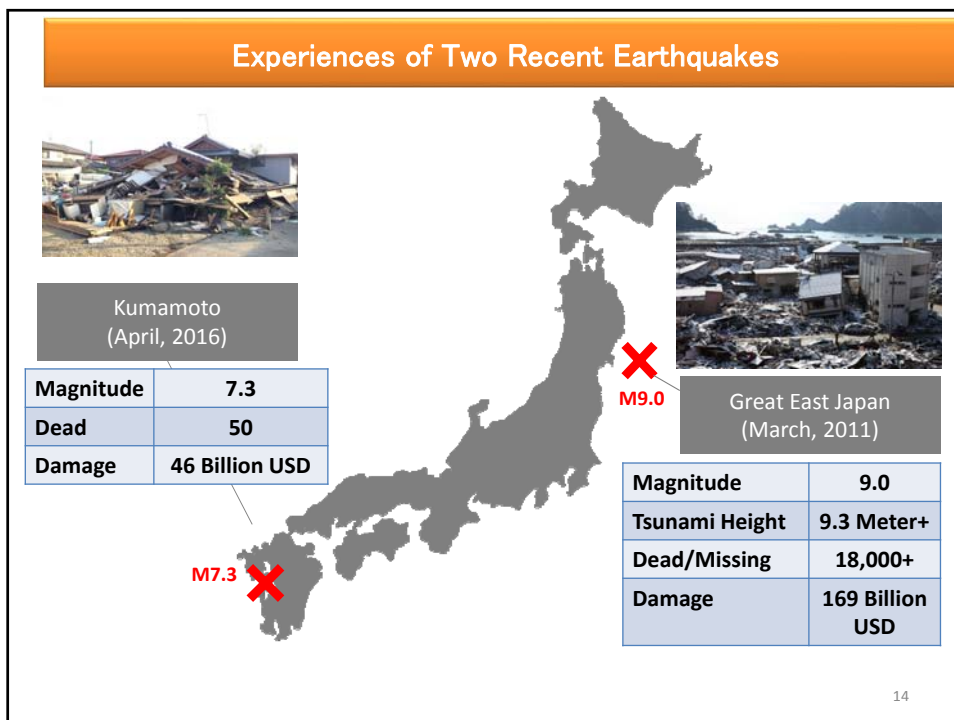
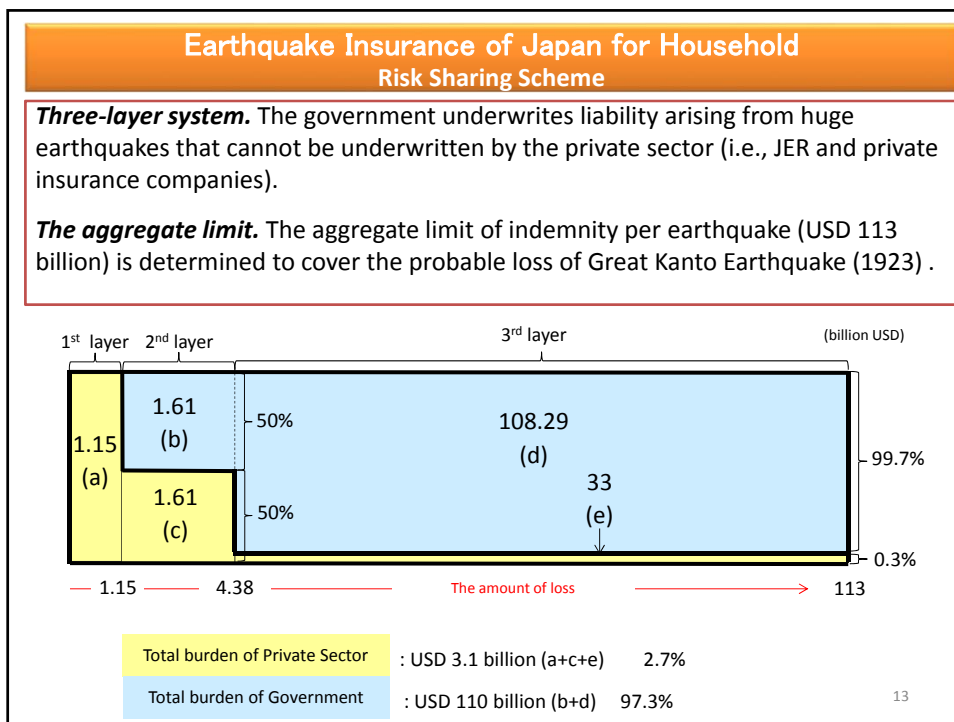
- Earthquake risk for household residential buildings and assets is partly shared by the Government and the private sector.
 - The Government reinsures the extraordinarily large loss by earthquake. For this purpose, the government holds the Special Account for Earthquake Reinsurance for pooling reserve.
 - Premium is discounted in accordance with a year of construction & seismic capacity to incentivize private sector to build more resilient buildings.



1/ Administers the earthquake insurance pool, and manages pooled reserves.


2/ General Insurance Rating Organization of Japan.

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the Government Response to the Great East Japan Earthquake - Special Account for the reconstruction -

- For reconstruction purposes, the Japanese government developed a special medium-term fiscal framework, which is separate from ordinary fiscal framework.
- A special account was established to manage revenue and expenditure for reconstruction purposes, reconstruction bonds, and reconstruction taxes.



Income tax : 2.1%

Corporate tax : 10% (expired in the end of FY2013)

Residence tax : USD 10

- Bonds will be fully repaid by FY2037.
- Under the original plan, the government issues bonds until FY2015. This period is extended to FY2020.

Special Account for Reconstruction from the Great East Japan Earthquake

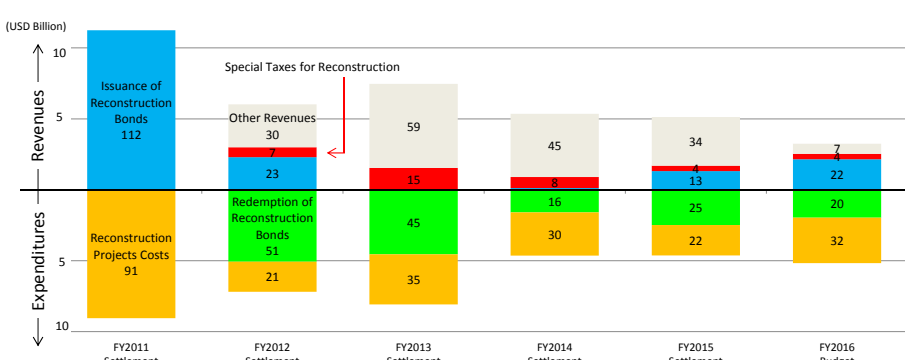
Revenues	Expenditures
Other Revenues	Reconstruction Projects Costs
Special Taxes for Reconstruction	Redemption of Reconstruction Bonds
Issuance of Reconstruction Bonds	

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the Government Response to the Great East Japan Earthquake - Revenue and Expenditure at a Glance -

- **Revenue side.** Initially, the government relied on reconstruction bond issuance to finance project costs. In the following years, it avoided large-scale reconstruction bond issuance by mobilizing resources through special taxes, the contingency reserve, and reduction in other expenditures such as personnel costs.
- **Expenditure side.** Total reconstruction projects cost amounts to around USD 230 Billion in total. The amount of bond principal repayment so far was USD 160 Billion.

(USD Billion)



Year	Reconstruction Projects Costs	Redemption of Reconstruction Bonds	Special Taxes for Reconstruction	Other Revenues	Issuance of Reconstruction Bonds
FY2011 Settlement	91	0	0	0	112
FY2012 Settlement	21	51	23	7	30
FY2013 Settlement	35	45	15	9	59
FY2014 Settlement	30	16	8	1	45
FY2015 Settlement	22	25	13	4	34
FY2016 Budget	32	20	22	7	7

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the Government Response to the Kumamoto Earthquake

- The Kumamoto Earthquake occurred in April 2016 (M7.3)
- As an initial response, the government used part of its contingency reserve (USD 23 million).
- In May 2016, the government compiled a supplementary budget of USD 7,780 million. The financial resource was mobilized by reducing the planned interest payment, taking advantage of low interest rate environment.



Major expenditure items

	(million USD)
Support for restarting corporate activities include small and medium-sized enterprises, agriculture, tourism, etc.	1115
Support for restoration of infrastructure, prevention or mitigation measures, etc.	623
Support for activities of the Self Defense Force	469
Disposal of disaster-related wastes	340

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Prompt Payment of Insurance Claims of Household Earthquake Insurance in 2011

- After the Great East Japan Earthquake (March, 2011), payouts were provided to household in a prompt manner, through the following three new measures:
 1. Industry-wide collaboration: General Insurance Association of Japan worked as the hub.
 2. Use of aerial and satellite photos.
 3. Streamlined process

Total loss areas. Claims were fully paid without on-site surveys.

Partial loss areas. the scale of damage was assessed only by self-declaration and/or photos.



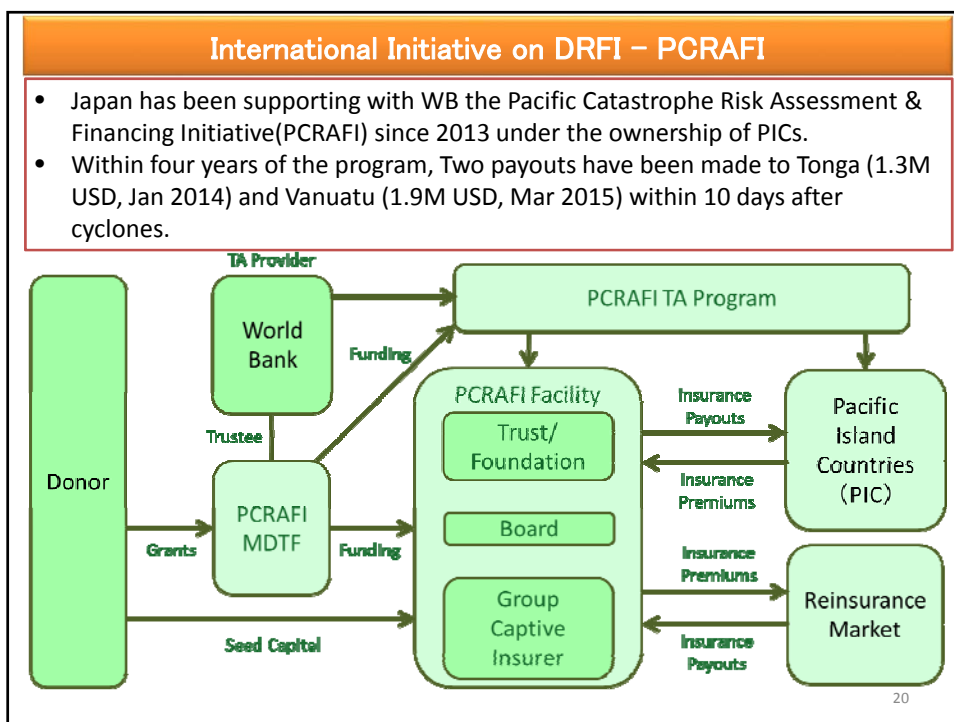
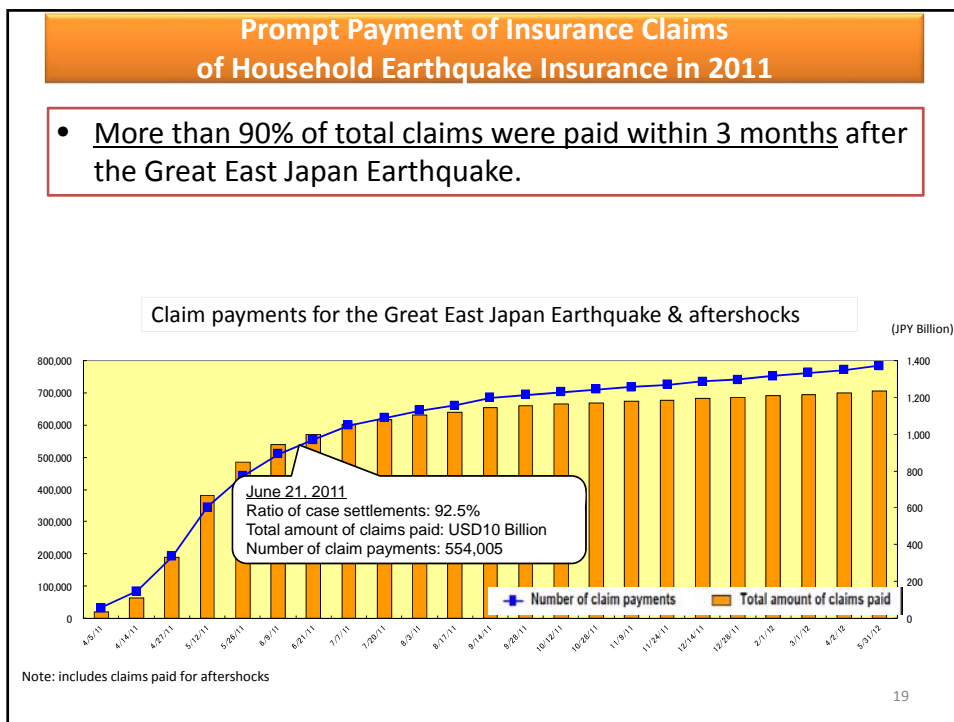
*insurance companies cooperated with surveys

Before "total loss areas" After



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Thank you for your attention.

