International Recovery Forum 2016

Restoration Status of Damaged Tohoku District and Contribution by Tohoku University

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Prof. Hiroaki MARUYA, Dr. Econ.

IRIDeS, Tohoku University

Business Continuity Advancement Organization (BCAO)

1 "Efforts for Reconstruction of Tohoku" by Reconstruction Agency, Japan

- After the Great East Japan Earthquake on March 11, 2011, the Japanese Government promptly formulated <u>budgets</u>, <u>modified laws and orders</u>, and established "<u>Reconstruction Agency</u>," in 2012.
- A timeframe for reconstruction was set to be 10 years, of which the first 5 years (2011-2015) were set as a "Concentrated Reconstruction Period," and ¥25 trillion (approx. \$250 billion) were allocated for the period.
- The latter 5 years (2016~2020) are designated as "Reconstruction and Revitalization Period" and ¥6.5 trillion (approx. \$65 billion) are allocated.
- Most of the <u>infrastructure</u> in the areas affected by the earthquake has been recovered. <u>Housing</u> reconstruction is in progress.

2.1 Transition of No. of Refugees



Source: Reconstruction Agency, Japan

2.2 Leveling of the Tsunami Affected Area

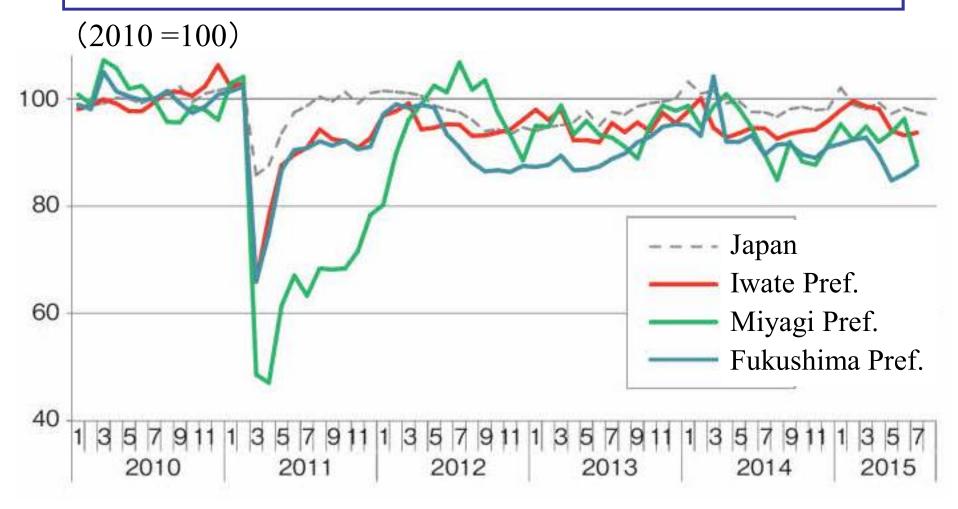


Minami-Sanriku Town

2.3 Comments on Housing for Evacuees

- 1 It is <u>hard to avoid that provision of housing takes time</u>, because <u>rebuilding on site is difficult in tsunami affected area</u>. Intention of the victims have fluctuated in these terms.
- There is the concern that <u>oversupply of land for housing for evacuees</u> from tsunami affected area and that <u>buildings will not stand on every leveling land</u>.
- 3 Substantially 100% subsidy by the central government and no local burden share might have affected the oversupply.
- 4 Maintenance cost in the future should be a serious problem.
- 5 <u>Elderly persons will move out</u> from the housing for evacuees in the near future.

3.1 Mining and Manufacturing Index of the Three Affected Prefectures



Source: Mining and manufacturing index, METY, Japan

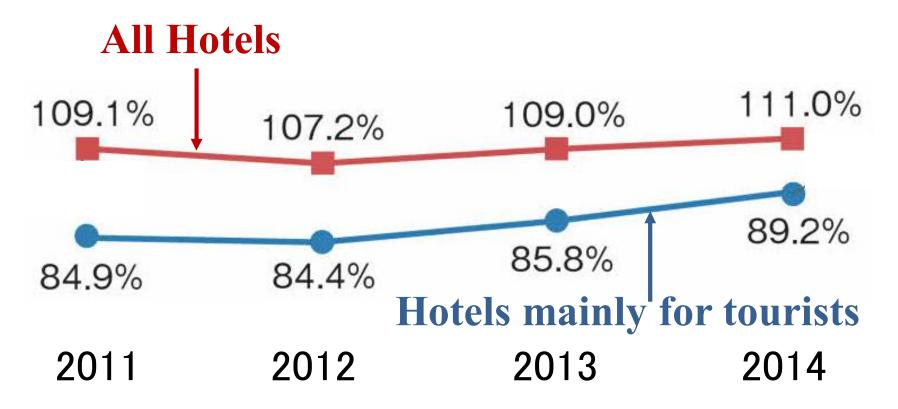
3.2 Recovery Status of Fisheries Processing Facilities (Wishing Resumption) in the Three Affected Prefectures

As of 880 facilities (wishing resumption)



Source: Materials of Fisheries Agency, Japan

3.3 Number of the Hotel Guests of the Three Affected Prefectures (Compared to 2010)



Source: Survey of Japan Tourism Agency

*The figures and timings are not scrutinized.

The Process and Prospects for Reconstruction

November, 2015

Intensive Reconstruction Period(2011-2015) Reconstruction and Revitalization Period(-2020) 2016.4 - 2017.4 - 2018.4 - 2019.4 2020.4 2021.3 2015.11 [The Number of evacuees] Physical and mental health care, Support for community development, "Mental 191,000 Evacuees Recovery" project, etc. (470,000 at its peak) [At the height of construction] Completion of housing projects (expected to end by FY2018) [Construction in progress] Continue to promote acceleration measures Relocation to upland: 99% (2018(scheduled)) Housing Closely work with the municipalities. Public housing for the disaster-affected: 94% Fukushima-Soma road and Reconstruction Kamaishi-Hanamaki road open. [completed] (March, 2016(scheduled)) (March, 2017(scheduled)) Community (2019(scheduled)) Relocation: 25% Relocation: 47% Relocation: 75% Development Sanriku coastal road opens. Public housing: 63% Public housing: 39% Public housing: 88% [Industrial Production] Finding new markets, Indices recovered more or less to the level of pre-earthquake. product developments, [Agriculture] Reviving support for reconstruction 74% of farmlands have recovered. Industry of local market, etc. [Seafood Processing] 84% of the facilities have reopened. Livelihoods [Tourism] (compared with 2010) Number of foreigners staying overnights is back to only 65% of pre-earthquake level. (Nationwide: 62% increase) Coordination with responsible Ministries: Decontamination, Restoration of infrastructure. Total evacuees from Fukushima Prefecture. Revitalizing resumption of services necessary for daily life. Evacuation orders lifted: Overnight stay started: Evacuation order will be lifted for the areas other than the area Reconstruction Tamura city, Kawauchi village, Katsurao village, Kawamata town, where return is difficult. (By the latest March 2017) and Naraha town. Fukushima Minami-soma city, Kawauchi Village. Development and Building of leading model projects Creation of sharing the models in (FY2013~FY2015: 216 projects)) "New Tohoku" other areas. Creating opportunities for business matching.

(2020) The Olympic and Paralympic Games in Tokyo (March 2021) The end of Reconstruction and Revitalization Period (Reconstruction Agency is scheduled to close no later than 2021)

3.5 Comments of Revival of Industries

- 1 Revival of industries has been <u>facing difficulty in almost all</u> <u>the affected area</u> in general <u>except Sendai city and around</u>.
- 2 It is not easy to regain the important customers when a company once loses them. Early restoration is necessary.
- 3 The length of the period that the companies are able to wait for the restoration is far shorter than the period that the residents are able to wait their permanent housing. However, this fact was rarely considered in the reconstruction projects.
- 4 The recognition of the <u>need of the restoration of whole the</u> <u>supply chain concurrently</u> is <u>insufficient</u>.

4.1 Global Centre for Disaster Statistics

The Global Centre for Disaster Statistics was established in April 2015 to support countries to manage disaster risks in their country and contribute to international process on disaster risk reduction.

Unique <u>collaboration between UN organization (UNDP)</u>, <u>academia (IRIDeS, Tohoku Univ.)</u>, and practitioners (National/Regional governments, private sector etc.)

The objective of Global Centre for Disaster Statistics project is to contribute to the implementation of Sendai Framework for Disaster Risk Reduction (Sendai Framework) and the 2030 Agenda for Sustainable Development (2030 Agenda) through three components:

4.2 The Outline of GCDS

UNDP **United Nations Development Programme** Assistance for developing disaster loss databases Policy Advice

 Institutional capacity development

- Establishment of **National Disaster** Loss Database

Cooperation

IRIDeS

International Research Institute of Disaster Science, Tohoku University

Global Centre for **Disaster Statistics**

- National data assembly
- Archives mechanism
- Analysis (adding values)
- Policy recommendations
- Provide data to the public in a user-friendly platform

Global Database

Cooperation

United Nations

UNISDR

UN International Strategy for Disaster reduction

ESCAP

Economic and Social Commission for Asia and the Pacific

JICA

ICHARM

International Centre for Water Hazard and Risk Management

ADRC

Asia Disaster **Reduction Center**

International Recovery Platform

• Data collection

4.3 Concept of GCDS

Insight

- **★** Policy recommendation
- ★ Mainstreaming of Disaster Risk Reduction

Global Centre for Disaster Statistics

Analysis

- ★ Provide systems and tools of disaster statistics
- ★ Scientific Analysis

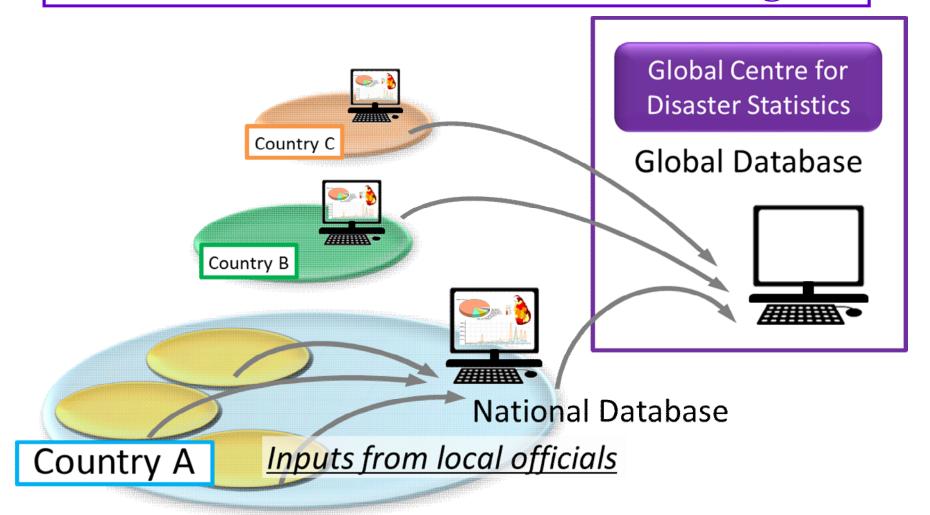
Data

★Global Database

Countries

★Support Monitoring SFDRR and SDGs

4.4 Data source from National/Local gov.



4.5 Statistical Database on the Great East Japan Earthquake, in GCDS

The Statistical Database on the Great East Japan Earthquake is database is provided by the Global Centre for Disaster Statistics (GCDS), International Research Institute of Disaster Science (IRIDeS), Tohoku University.

We launched this database in trial base today! We have strong hope to inform you about the lessons of the Great East Japan Earthquake.

We provide the statistical data related to the Great East Japan Earthquake with visible figures, detailed the references and the original data, in order to improve the understanding of the disaster and to be useful in research by both domestic and international people.

Link Collection of Japanese Statistics

Inquiry

In Trial Operation

Statistical Database on the Great East Japan Earthquake, Global Centre for Disaster Statistics, IRIDeS, Tohoku University.



Message

This database is provided by the Global Centre for Disaster Statistics (GCDS), International Research Institute of Disaster Science (IRIDeS), Tohoku University.

After the Great East Japan Earthquake, the United Nations Development Programme (UNDP) and Tohoku University agreed the establishment of GCDS at the 3rd UN World Conference on Disaster Risk Reduction (WCDRR) which was held in Sendai in March, 2015.

We have strong hope to inform you about the lessons of the Great East Japan Earthquake. We are looking forward to many people visiting our site, regardless of whether they are domestic or international visitors.

1 Storage Data (Explanation of this database is here)

About Database

We provide the statistical data related to the Great East Japan Earthquake with visible figures, detailed the references and the original data, in order to improve the understanding of the disaster and to be useful in research by both domestic and international people.

2 Search of Statistical Data (Here's more on search method) Searching Database

You can search the various statistical data related to the Great East Japan Earthquake by inputting the keywords in the following search box.

	Input keyword(s) for search below.		
	Google" Custom Search	Q.	
http	://www.geje-gcds.jp/en/ind	ex.l	ıtm

Statistical Database on the Great East Japan Earthquake, Global Centre for Disaster Statistics, IRIDeS, Tohoku University.



About the Database

About the Statistical Database on the Great East Japan Earthquake

Purpose of Establishment

The Global Centre for Disaster Statistics assembles this database to transmit information about the situation of damage, recovery, and reconstruction relevant to the Great East Japan earthquake within and outside Japan. As a university in the affected area of the Earthquake, we would like to express our gratitude for the participation in relief and recovery activities from within the country and abroad, and we play the role of providing information to assist in preparation for future disasters.

For the provision of statistical information on the Great East Japan Earthquake to a wide range of people, both domestic and international, we aim to provide an one-stop service that enables users to search for this information from this database.

We provide the data in Japanese and English by integrating and processing information from national and local governments and economic organizations (Fig. 1).

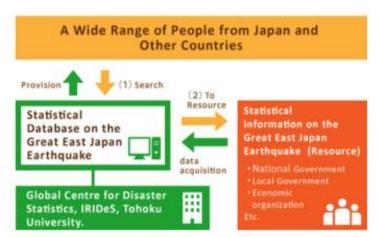


Fig.1 Role of the database

Contents of Storage Data

The information (PDF format) in this database is configured as the chart data based on the statistics in the first page and the table described in detail in the chart in the latter page(s) (Fig.2).

In the first page, the chart, title, and source are written down to show the damage, recovery, and reconstruction concerning the Great East Japan.

In the latter page(s), the sources of the chart and its link are provided, and the detailed original data and its link are also provided.

Total number of Rescue (As of May 30) First Page: Chart from Statistics National Polis Agency Management Agency Japan Coast Guards Ministry of Defense Mar. 11 32 3 18 Mar.12 397 641 229 Mar.13 1,631 3,728 28 Displays chart from statistics Mar.14 448 238 19 19,286 Mar.15 1.183 2 24 Mar.16 27 24 29 Mar.17 1 Mar. 18 2 17 ~Apl:19 Total 3,749 4,614 26,707 360 19,286 ®As for the rescue operation by each organization. The number may be duplicated in some cases because the emergency rescue activity is carried out jointly. #The number of the Fire and Disaster Management Agency is the total number of rescue by Emergency Fire Response Team including the operation that firefighting organizations carried out in cooperation by each affected prefectures. Displays name of resource Note: This figure of the original is made by Headquarters for Emergency Disaster and original data Resource: Cabinet Office "WHITE PAPER ON DISASTER MANAGEMENT, 2011" Second Page: Detailed Detailed Information of the figure on the previous page information of Statistical Chart The total number of rescue(May 30) Point of displayed contents Displays points of the The peak of the rescue is March 13. contents of chart. Cabinet office" WHITE PAPER ON DISASTER MANAGEMENT" Figure 1-2-2 of part 1. Chapter 1, Section 1,2(4) The total number of rescue The link of the source is http://www.bousai.go.jp/kaigirep/hakusho/h23/bousai2011/html/hyo/hyo016.htm available here. Headquarters for Emergency Disaster Control (5) Rescue Activity The link of the original data is http://www.kantei.go.jp/saigai/pdf/201104091700jisin.pdf available here. National Polis, Agency, Fire and Disaster Management Agency, Japan Coast Guards, Ministry of Defense, Total number of rescue

Fig. 2 Contents of data

Data Image

Example of the storage data

First page of Data

Total number of Rescue (As of May 30)

	National Polis Agency	Fire and Disaster Management Agency	Japan Coast Guards	Ministry of Defense	Total
Mar.11	32	3	18		/
Mar.12	397	641	229		/
Mar.13	1, 631	3, 728	28		/
Mar.14	448	238	19		/
Mar.15	1, 183	2	24	19, 286	/
Mar.16	27	_	24		/
Mar.17	29	_	1		/
Mar.18 ∼Apl.19	2	2	17		
Total	3, 749	4, 614	360	19, 286	26, 707

^{*}As for the rescue operation by each organization, The number may be duplicated in some cases because the emergency rescue activity is carried out jointly.

 $Note: This\ figure\ of\ the\ original\ is\ made\ by\ Headquarters\ for\ Emergency\ Disaster\ Controls.$

Resource: Cabinet Office "WHITE PAPER ON DISASTER MANAGEMENT, 2011"

^{*}The number of the Fire and Disaster Management Agency is the total number of rescue by Emergency Fire Response Team including the operation that firefighting organizations carried out in cooperation by each affected prefectures.

Detailed Information of the figure on the previous page | Second page

Title on the previous page		The total number of rescue (May 30)		
Point of displayed contents		The peak of the rescue is March 13.		
Details of the source	Name of the source	Cabinet Office "WHITE PAPER ON DISASTER MANAGEMENT" Figure 1-2-2 of Part 1, Chapter 1, Section 1, 2 (4) < Jul. 2011>		
	Title	The total number of rescue		
	URL	http://www.bousai.go.jp/kaigirep/hakusho/h23/bousai2011/html/hyo/hyo016.htm		
Details of the original data	Name of the original data	Headquarters for Emergency Disaster Control (5)Rescue Activity		
	Title			
	URL	JRL http://www.kantei.go.jp/saigai/pdf/201104091700jisin.p		
Keyword		National Polis Agency, Fire and Disaster Management Agency, Japan Coast Guards, Ministry of Defense, Total number of rescue		

Thank You



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