



筑波大学
University of Tsukuba

Resilience in the Tsunami Disaster-Stricken Area
and Learning activities of residents
— The Reconstruction of Great East Japan
Earthquake Area

Dr. Akitoshi TEUCHI
(Professor Emeritus University of Tsukuba)

I . The purpose of this presentation.

I will intend to report the resilience in tsunami disaster-stricken area from view point of community resilience which relate to social capital.

The community resilience is defined as the power which community people recover from the adversity. It is enhanced by the social network which operate functionally. This report focus upon learning activities of the people who intend to recover their community from earthquake disaster .

II . Reconstruction in disaster- stricken area by the Earthquake

Many disaster-stricken areas by the Earthquake are rebuilding work that is based towards infrastructures . That reconstruction plans were made by the town halls. Therefore, there are cases that needs of residents in that areas are not realized by the town hall .

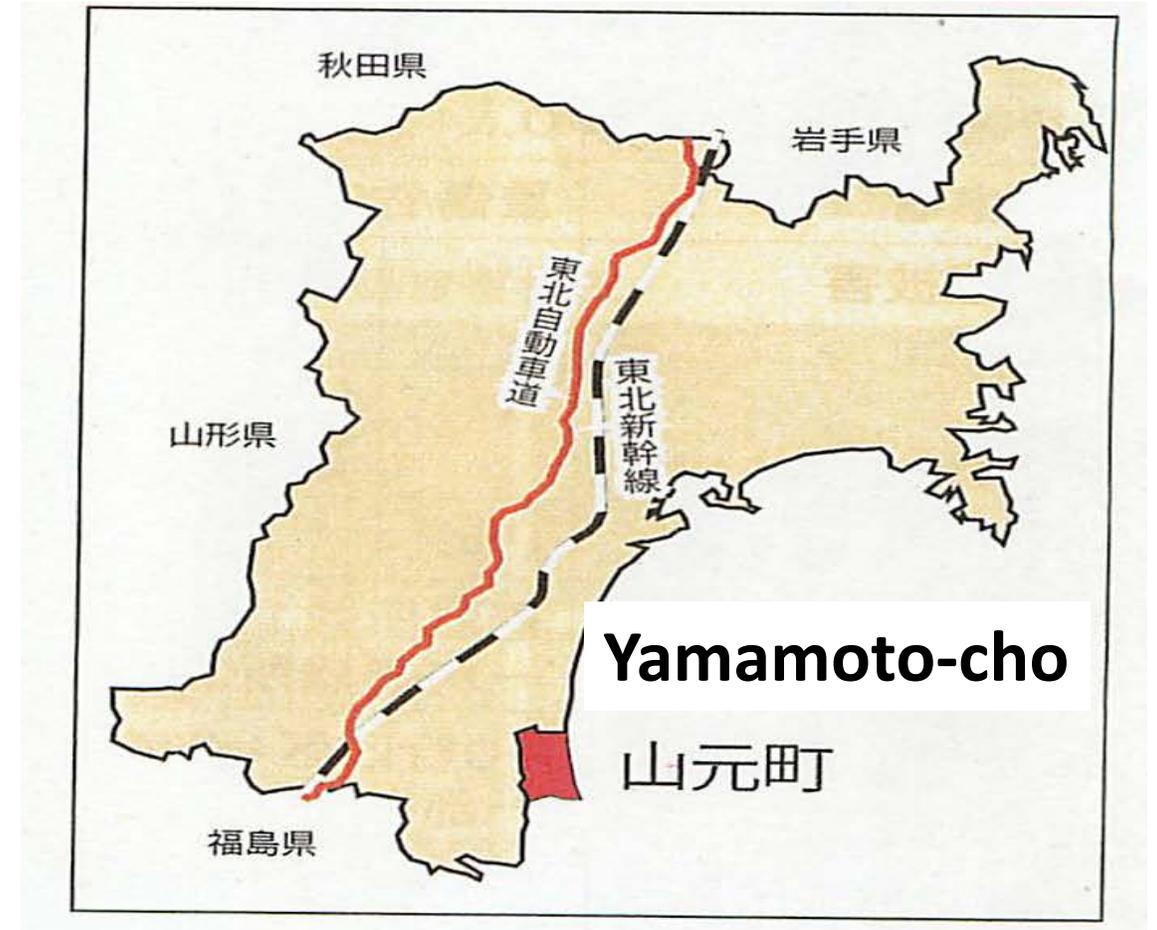
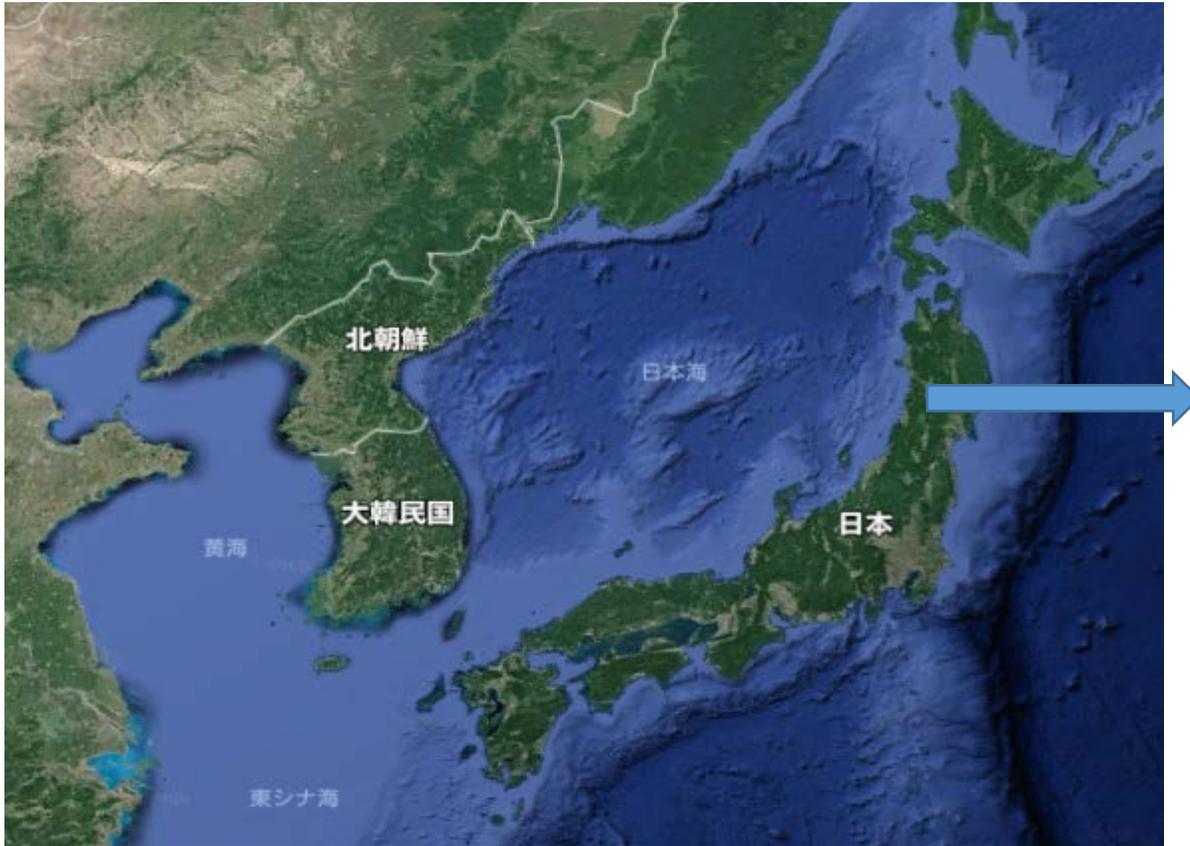
III. Efforts of Disaster area residents toward reconstruction

In areas that reconstruction is underway in the government-led, I know that residents have created the reconstruction plan in cooperate with specialists and volunteers.

In this report ,I would like to introduce one case which residents tackled for making the reconstruction plan in a responsible way themselves. The case is the sea –side area of Yamamoto-cho in Miyagi Prefecture.

I think that planning process is residents' learning activity , and community resilience is supported by that's activity.

IV. Place and Outline of Yamamoto-cho



The outline of Yamamoto-Cho

The principal products of this town are strawberry, apple and sakhalin surf clam.

This picture is the poster for Yamamoto-cho.

The name is hokki-kun.

Sakhalin surf clam is hokki in Japanese.

Population of this town is 12,566 as of 29 Feb. 2016.

in this connection, it was 16,695 as of 29 Feb.2013

The rate of the old in this town is 35.7 %, that is the fourth highest in Miyagi Pref.

The birthrate is 4.75%,that is the fifth low in the Pref.



V. Tsunami Damage in Yamamoto -Cho

When the Earthquake occurred 11 March 2011, the magnitude indicating the energy generated by this was 9.0.

1)The toll of victims is 636.

Victim number of population ratio is third highest in the Pref.

2)The Destroyed buildings is 4,440

Around The YAMAMOTO Town



⑤ House

① Railway

② Station

③ School

④ Port

あなたが見ている方向は [西] 向きです。
YOU ARE FACING WEST.

① Railway damaged by the Tsunami



Around The YAMAMOTO Town



あなたが見ている方向は [西] 向きです。
YOU ARE FACING WEST.

② Railway station and platform damaged by the Tsunami



Around The YAMAMOTO Town



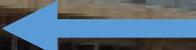
あなたが見ている方向は [西] 向きです。
YOU ARE FACING WEST.

Elementary school near the sea side hit by Tsunami





Tsunami reached this level.



Seaside



In side the Elementary school



Around The YAMAMOTO Town



あなたが見ている方向は [西] 向きです。
YOU ARE FACING WEST.

Port



Damaged concrete block at the bank



Damaged concrete block at the bank



Around The YAMAMOTO Town



あなたが見ている方向は [西] 向きです。
YOU ARE FACING WEST.

Disaster danger zone and the transfer promotion

Sea-side in Yamamoto-cho was designated as the disaster zone by the town office in their reconstruction plan .

The flood area expected over 3 meter is prohibited to live in and there are the transfer promotion area. They are recommended to move from the sea-side to inland areas by the office.

But , some of residents in the disaster zone hope to live in that area because of following reasons

- they have the foundation of life .
- they believed if evacuation route is in place in the area, it is possible to live in the area.

They had doubts about the reconstruction plan promoted by the office. They knew that the Jyuminnokai was settled by residents in the Arahama District of Sendai City. The residents rejected the city hall's proposal which needed to move them to higher area, they would like to hope to live in their present address .

Some people of Yamamoto-cho needed to organize the same voluntary body . They had the first time meeting on December 2011. and they organized the Doyobinokai.

Photo from hillside to seaside at june 2013



Photo from hillside to seaside at june 2016



Railway re-constructed and moved to hillside from seaside

Photo from hillside to seaside at june 2013



Permanent houses built by the town hall at june 2016.



Permanent houses built by the town hall



VI. The activity of Doyobinokai which aim at the Earthquake disaster reconstruction in the sea-side in the Yamamoto-cho

The start: 7 January 2012.

The aim of the Kai: Residents organization which aims to reconstruction of their life and community at the sea-side.

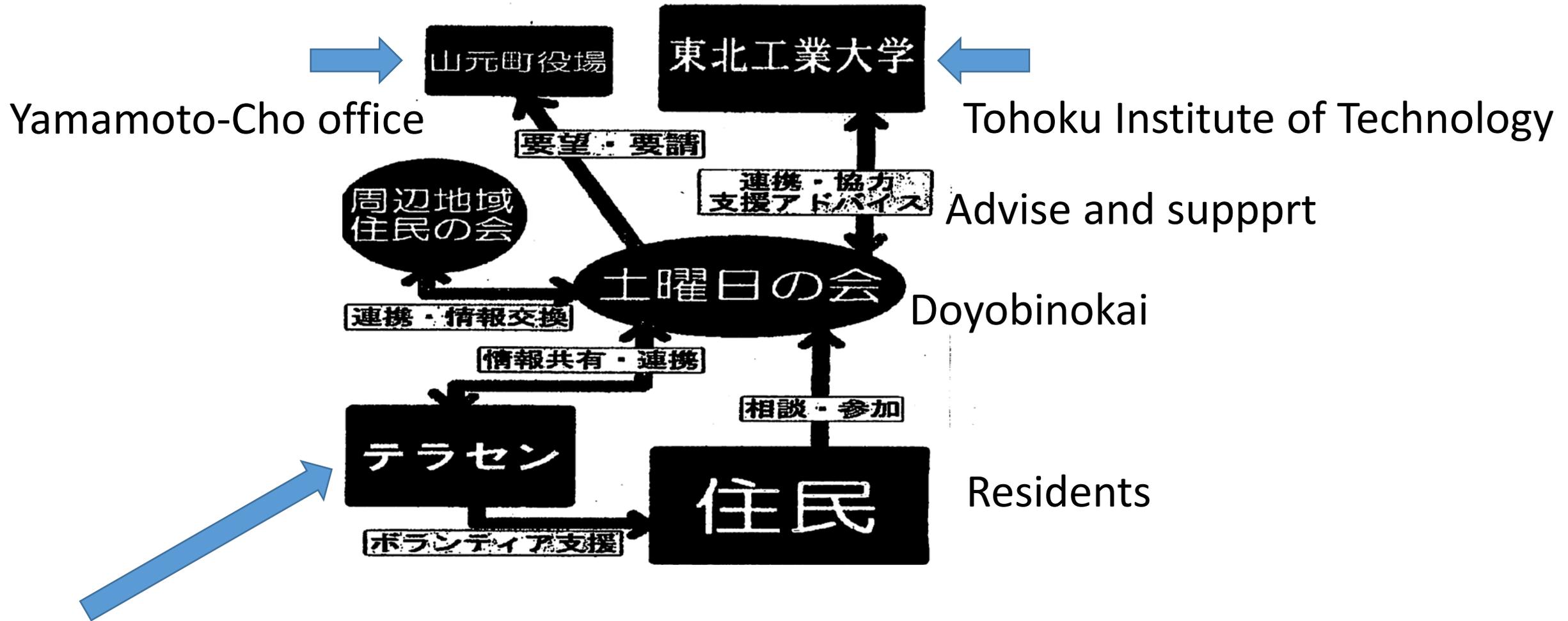
The activity:① they open the weekly meeting at Saturday evening.

Saturday is Doyobi in Japanese.

② they publish a monthly paper which is Ichigo shinbun from June 2014 .

strawberry is Ichigo in Japanese.

Network with Doyobinokai(土曜日の会)



The Volunteer Center in the Fumonji Temple on Yamamoto-cho

Doyobino kai



Workshop held by Doyobinokai

Round	event date	number of participants	theme
1 st	24 Nov.2012	About 30 people	Life Circumstances after the Earthquake and the future Life
2	2 Feb.2013	About 30 people	How do we rebuild our occupation?
3	16 Mar.2013	About 15 people	Community re-construction
4	13 Jul.2013	About 25 people	Community disaster prevention and escape
5	20 Oct. 2013	About 20 people	Meeting with the vision of town re-construction

Workshop (1) Discussion



Workshop (2) Presentation



The Re-construction Vision of Sea-side area in Yamamoto-cho
made by the Doyobinokai, 31 Jan.2014

The Doyobinokai promoted five times workshops, and carried out the evacuation behavior survey at the tsunami warning issued which was the subject of the Hanagama District in Yamamoto-cho.

It's members analyzed needs of the residents' opinions and they divided them which residents can do ,or have to do, and they propose ,or request to town hall. That data based on, they draw up the Re-construction vision of sea-side area.

This was submitted to the town mayor on 24 Mar.2014, but he has no response to it until today.

The Residents' Proposal :Our Town in the Graceful climate

<Basic Principle>

We would like to hope as follows:

- 1) the community which is the sense of security and safety ,
- 2)the future plan which the residents can play a responsible role,
- 3)the proposal which the residents can rebuild their occupation and life worth living in Yamamoto-cho,
- 4)the proposal which is able to be materialized in cooperation with the town hall,
- 5)the proposal which is authorized by neighborhood associations

VII. Doyobinokai's Inspection of two areas where affected by the earthquake-disaster

Members of the Doyobinokai visited the following two places affected area of the earthquake. They learned about how to proceed with reconstruction in those regions.

- ① Okushiri Island where is a disaster area of the earthquake which is named Hokkaido Nansei Oki earthquake occurred in July 1993.
- ② Ojiya city where is a disaster area of the earthquake which is named Niigata Chuetsu Earthquake occurred in October 2004.

VIII. Learning Activities by the Doyobinokai and Community Resilience

Doyobinokai is a voluntary organization that is run by residents who have doubts about the reconstruction plan promoted by the town hall.

Before the Earthquake, they were living the same district in the town, but they did not have relation with each other. After the disastrous experience, they have been meeting and learning supported by scientists and volunteers to realize the safety community. As a result of learning, they have created reconstruction plan in cooperation.

In this case, we can understand that some people interested in their community and they formed the network between the residents towards the reconstruction of the Earthquake. I think that People's empowerment formed by continuous learning activities contribute to community resilience.

IX. The problem confronting the Doyobinokai

Members of the Doyobinokai understand that it is necessary to cooperate with the town hall in order to realize their community development plan.

I think that they should call for dialogue to the mayor and town officials.



Thank you for your attention