
Community Living Together with a River: Collaboration Between Residents of Osato-cho, Miyagi Prefecture and Our Regional Office.

A Story of Evacuation from Water Damage due to East Japan Typhoon and Reconstruction

(Research period: FY2024 ~ FY2025)

TAKAHARA Kohei, (Ph. D.), Fixed-term Researcher

TAKEUCHI Yoshinori, Head

River Department, Flood Disaster Prevention Division

(keywords) river basin water management, East Japan Typhoon, dialogue and collaboration

1. Undulating embankment

Was it on Saturday? At that time, many young guys, I was also still in my 30's. Well, a bunch of people. Fire fighters and senior people, in short everyone, all men were putting up sandbags to prevent the embankment from collapsing in our area. The same as everyone, I still remember, the embankment was undulating! There was massive pressure. That was so scary! We all put up sandbags, saying that it would be OK if there is no overtopping, we needed to stop water leakage, never letting water pass through. (Mr. A, Osato-cho)

The above is a story of a resident of Nakakasukawa district, Osato-cho, Kurokawa gun, Miyagi Prefecture on the water damage in August 1986. The Nakakasukawa district is adjacent to Yoshida River, in Naruse River water system, flowing in the middle of Miyagi Prefecture. Typhoon No. 10 that approached East Japan in the beginning of August 1986 caused substantial damage to various regions including Miyagi Prefecture.

From those few lines of narration, we can get a picture of many things other than the undulating embankment. For example, around 40 years ago, many residents joined flood prevention activities. Mr. B, Osato-cho, mentioned that it was difficult to join the fire department at that time even though he wanted to. Currently, this district faces a shortage in fire department members. This narration sheds light on the changes of the times. Also, flood prevention activities were an event that all men in the district joined, led by the fire department, and as shown in the expression “in our area”, it was an opportunity to remind them of their commitment to the area they called home. It was, at the same time, an opportunity for young residents to learn from senior residents' local knowledge, that is, “it would be OK if there is no overtopping”.



Photo-1 Nakakasukawa district just after the collapse (provided by Geospatial Information Authority of Japan)

2. Looking for key points on collaboration for river basin water management

The embankment of that Yoshida River collapsed in Nakakasukawa district due to the water damage caused by Typhoon No. 19 in 2019 (East Japan Typhoon). The overlapping was observed in the early morning of October 13, and the collapse occurred around 7:50 A.M.

I, the writer, have continuously conducted interviews with residents of this district and of Kashimadai district of Osaki city since the summer of 2024. In this article, I will make an interim report based on the survey results. I have 2 objectives for this research. The 1st one is to look for key points of collaboration for river basin water management by carefully interpreting water disaster and the reconstruction experience of residents along the river basin. Yoshida River (and Naruse River, undividable in disaster management history) is an advanced area in river basin water management and the death toll due to the water disaster by Typhoon No. 19 was zero in Nakakasukawa district. Also, the district residents created a reconstruction committee by themselves and had a leading role in paving a path for regional reconstruction, collaborating with the town, the prefecture and MLIT (River Office for Kitakamigawa River Downstream).

Why was Nakakasukawa district successful in evacuation, restoration and reconstruction? I would like to take a deeper look into the key values of the region's residents that made it possible. By digging into the

history, culture and the nature of the community the meaning of the work done by the local office becomes apparent. By analyzing this case, I will find a base for deployment of river basin water management. The objective is to look for key points to achieve comprehensive dialogue and collaboration between the region and the personnel in charge of river management.

The 2nd objective is to propose a method based on humanities and social sciences to identify key points of dialogue and collaboration derived from regional residents' voices and their history. There can be many varied examples on how to ensure dialogue and collaboration for each river basin. I assume we cannot currently identify all such key points through a general questionnaire or surveys and hearings. However, I believe it will lead to appropriate and sincere dialogue and collaboration at each river basin. I propose a practical, actionable and simple method to be carried out by Regional Development Bureaus and river offices based on concepts of humanities and social sciences.

In this research, I continue interviews mainly with disaster affected residents. In cooperation with the River Office for Kitakamigawa River Downstream, I interviewed 13 residents. The average interview time per person was around 1.5 hours, recorded upon their approval and the transcription was returned to the individual to reconfirm the details. Then, I identify the meaning of damage and reconstruction experience, studying the transcription details by KJ method and phenomenological analysis.

KJ method is a simple interpretation method for data in cultural anthropology. The method digs into the meaning of survey data through sorting out and summarizing findings, obtained by surveys by writing down each of them on paper. In this research, I wrote down the details told in the interview one by one on sticky notes on an online whiteboard, and repeated the process to add any new findings, sorting out those notes. By using this method, it became apparent how the disaster survivors are responding to this evacuation and reconstruction as they look at the past and the future of their region.

3. Why are the evacuation and restoration / reconstruction successful?

Why have the residents of Nakakasukawa district accomplished complete evacuation and restoration / reconstruction? In this article, firstly I will explain the reasons.

1) To have regular simple disaster prevention drills and evacuation drills with a high attendance rate, after having established their own self disaster prevention organization in 2006.

2) Most of the residents, responding to the call by leaders of the regional association and fire department, evacuated in advance. Also, the local fire department and the official fire department rescued those who were delayed in evacuation.

3) Nakakasukawa district is a compact district having around 100 houses and the residents have kept very close relations with one another. The executives of the

regional association fully understood residents' evacuation situation and the necessity for help.

4) There were trust relations and coordination with the leaders of the regional association led by the chairman of the association. The leaders of the regional association played a leading role in evacuation, rescue and restoration / reconstruction. They have a custom of fostering leaders in the long run through multi-dimensional locally connected organizations and of establishing a relationship of trust.

5) The residents themselves engage in the maintenance of the regional environment including mowing the grass of the embankment and cleaning irrigation canals so they know the situation of the river and the natural environment very well. "The regional residents' voices are well heard through water disaster management. (omission) I hope that the opinions of such residents are seriously heard.", a resident Mr. C emphasized.



Photo-2 "Cheers at waterfront" event (Nakakasukawa district, July 2024)

4. The meaning of collaboration with our regional office

In the survey, I received a positive evaluation from many residents on the restoration / reconstruction projects made by our local office. The reasons included the fact that the manager in charge ensured making periodical reports on the work progress to the region's reconstruction committee to implement plans without delay, and that the office head gave explanations and opportunity for discussion at each critical moment. In particular, it seems that the steady progress of the project gave the damage affected residents a reconstruction perspective and sense of recovery timetable. In addition, we believe the most important thing was that our local office reinforced safety above all else and respected damage affected residents' serious choice, which is to stay and reconstruct at the "bottom of the embankment". They fully understood the regional dynamics such as an aging population and the deterioration of regional maintenance and water damage risk. It is this collaboration with the shared value and commitment that "we shall live here nevertheless".

☞ Detailed information is as follows.

1) The River Office for Kitakamigawa River Downstream "Yoshida River water management report, No. 6"

https://www.thr.mlit.go.jp/karyuu/_upload/doc/08_construction/tokkinn/chisuidayori/yoshida06_211025.pdf