

AN ETHNOGRAPHIC STUDY ON LOCAL RESIDENTS' WILLINGNESS AND ACTION  
TOWARDS REVITALIZATION OF DEVASTATED VILLAGES  
BEYOND THE GREAT EAST JAPAN EARTHQUAKE AND TSUNAMI IN 2011  
— CASE STUDY ON UNOSUMAI DISTRICT, KAMAISHI CITY, IWATE PREFECTURE —

A Thesis

by

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AN ETHNOGRAPHIC STUDY ON LOCAL RESIDENTS' WILLINGNESS AND ACTION  
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## ABSTRACT

The Great East Japan Earthquake and tsunami that occurred on March 11th 2011 caused severe damage to the coastal area of the northern part of Japan, including the research site in Kamaishi City in Iwate Prefecture. Among the city, especially Unosumai district suffered the severest damage, with more than half of affected buildings and victims in the whole city.

Originally, Japanese local society has the problem of shrinking society, which means not only a population decrease but also a decline of economic and social activities inside areas (Watanabe, 1967). In case of Kamaishi City, they also suffer from “loss of identity” (Genda and Ohori, 2008), after the recession of iron industry in 1960s. Considering the fact that disaster play a role of exposing potential social change, and promoting the change (Hirose, 1981), and the need to create a better society by considering the damage caused by the earthquake as “creative destruction” (Hayashi, 2009), the term “disaster recovery” can be defined as follows in this research: Disaster recovery not only means bringing population back to their original status, but also solving original challenges such as shrinking society that was worsen by the disaster. Thus, we should deeply discuss the revitalization of the local area as ultimate goal beyond population outflows as direct damage. From previous studies, necessary points to meet the definition above are; (i) Considering influences of social functions or challenges to individual life recovery, (ii) Grasping indirect factors such as value or feeling behind opinions or actions, and (iii)

Investigating real actions of local residents including leadership or discussion to discuss potential self-governance in ongoing recovery process.

The objective of this research is to find a possible way for local residents in Unosumai district to achieve “disaster recovery” which was defined in the previous section, through an ethnographic study on local residents’ willingness and action toward revitalization of devastated Unosumai district beyond 3.11 disaster.

The methodology of this research consists of informal interviews, targeting local residents who still remain inside of Kamaishi city and somehow restarted their life with work or business in four affected villages in the downstream of Unosumai basin; center of Unosumai, Katagishi, Nebama and Hakoziaki. By seven site visits from March 2012 to January 2013, 19 interviewees were collected through local people’s networks; 1) local leaders engaging in green tourism or cultural conservation, 2) some merchants who restarted their businesses in temporal shop streets in pre-fabric buildings prepared by government. Six key questions from Q1 to Q6 were extracted.

Q1: Trigger or conclusive factor to return to original village or restart their life and business /

Q2: Preparedness to take risks / Q3: Attachment to local area / Q4: Meaning of this disaster /

Q5: Awareness and action to local issues existed even before the disaster / Q6: Future vision

and action toward disaster recovery

Interviewees were classified into three groups based on interview results focusing on Q1 to Q6. Group 1 originally had strong attachment to local area and also took leadership tackling local challenges. Even after the disaster, they continuously pursued proactive and wider-scale action for disaster recovery with organization skills and leadership. Group 2 clearly aware of original local challenges as well as an unclear future vision toward disaster recovery, their attachment and willingness to remain might have been reduced, which let them take an inactive (just adaptive) attitude toward disaster recovery. Group 3 originally have stronger attachment to the local area but less awareness of local challenges and their scopes are limited to the individual level (about themselves or people around them). Eventually, in spite of their stronger attachment /willingness of return to local area, they take a passive attitude toward disaster recovery.

As result, the following challenges were observed in each group. Challenge of Group 1 is that each local leader is independent from each other but currently developing a whole structure and role division among diversified recovery discussion bodies. Challenges of Group 2 are: 1) They have fewer intentions to reflect their critical but minor opinions into recovery discussion, and 2) They have fewer intentions of long-term business from current short-term adaptation. Challenge of Group 3 is the difficulty to correctly understand the updated discussion for the recovery and land adjustment plan.

In the discussion, two future visions are derived from the interview results. For Group 1 and Group 2, that is involvement of Group 2 (mainly store owners) into town rebuilding discussion. There is an ongoing discussion of establishing a Unosumai basin-scale consociation, combining diverse discussion bodies emerged in these two years. Merchants like Group 2 should be also integrated in this whole structure by organization skills of Group 2. As there is already a new organization for recovery which consist of around 15 merchants in their 30s to 50s, I would strongly expect other merchants to join it and this association itself to be structured into a whole Unosumai basin consociation with enough power of reflecting opinions from such younger generations.

For Group 2 and Group 3, future vision is 1) strengthening the network of stores and customers, and 2) keeping the new community of stores from temporal shop facilities into new town building, with 3) well-examined customer needs. The relationship between Group 2 and Group 3 can be of merchants and customers. As locally based merchants selling products and services embedded in local people's daily life, Group 2 had better to try their best on keeping a reliable network with local customers like Group 3 through their businesses rather than prioritizing temporal customers from outside. Indeed, merchants like Group2 already have meeting special demands from customers in post-disaster situation. This relationship will be one of the motivations to remaining in the vacant devastated area for both merchants and customers,

as if they are in the relationship of chickens and eggs. In this light, the emerging idea of putting scattered merchants into one area or facility as if a shopping mall seems to have potential with some agreements from merchants already. Also, I found an interviewee promoting daily discussion with customers for disaster recovery. These actions will be effective to gather as much needs from residents as possible, such as best location of each business and combination for safer and more convenient shopping life for customers.

In conclusion, involvement of Group2 and mutual connection with Group1 and Group3 would be a key for disaster recovery in the case of devastated Unosumai district. By promoting discussion with customers, focusing on local business network, merchants like Group2 could be in mutual-help relationship with residents like Group3. And this would be motivation for both merchants and customers to remain in devastated area. Also, Group2 could be involved into Unosumai basin-scale consociation towards wider consensus, by Group1's organization skills.

Thus, Group3 would be aware of solving original local issues through recovery discussion, and Group2 would be active in tackling with these issues with their critical opinions as well as they obtain long-term motivation to remain in the devastated area.

*Key words:* The Great East Japan Earthquake and Tsunami, Disaster recovery, Local revitalization, Ethnography

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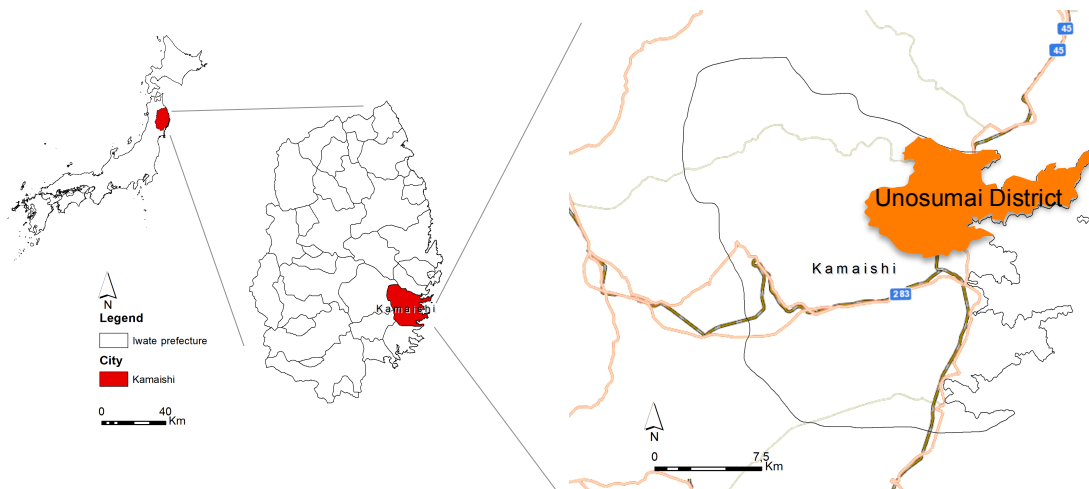
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# 1 INTRODUCTION

## 1.1 Damage by The Great East Japan Earthquake

### 3.11 Disaster Damage



**Figure 1 Location of Iwate Prefecture, Kamaishi City, Unosumai District**

The Great East Japan Earthquake and Tsunami that occurred on March 11th, 2011 (will be written as 3.11 disaster in this research), caused sever damage to coastal area of northern part of Japan including the research site Kamaishi City in Iwate Prefecture. The earthquake occurred at 14:46 of the day, with the magnitude 9.0 that was the biggest ever on the record and then huge tsunami wave hit the city. Among the city, especially Unosumai district has the severest damage, which has more than half of affected buildings and victims in the whole city as shown in the table.

**Table 1 Damage by 3.11 Disaster in Kamaishi City, Unosumai District**

|                   | Population as of February 2011 (as of October 2011) | # of death | # of missing | # of housing | # of fully-destroyed housing |
|-------------------|---|------------|--------------|--------------|------------------------------|
| Kamaishi City     | 39996 (37909)                                       | 888        | 153          | 16182        | 3652                         |
| Unosumai District | 6630 (4818)   | 445        | 138          | 2517         | 1515                         |

(Source: Kamaishi City, 2011 and 2012)



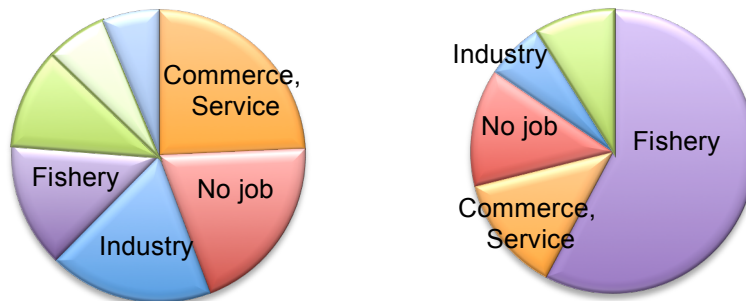
**Figure 2 Damage situation (left: 1 month after in Unosumai, right: 1 year after in Nebama)**



**Figure 3 Location of four main villages, Unosumai, Katagishi, Nebama and Hakoziaki**

### **Downstream of Unosumai River**

The reason why Unosumai district had such a huge damage was due to Unosumai River. Tsunami wave could easily go up through river in quite faster speed than people imagine. So many residents especially in center of Unosumai died because of optimistic prediction against Tsunami damage. There are mainly 4 villages here (administratively, Nebama is included in Unosumai Town, Katagishi and Hakozaiki are also town). In Unosumai, Katagishi, residents used to have diverse occupation such as commerce, service, industry and fishery. On the other hand, coastal village Hakozaiki had more than half people who engaged in fishery.



(Source: Sato and Hirayama, 2012)

**Figure 4 Occupation in Katagishi and Unosumai Town (left), Hakozaiki and Ryoishi Town (right)**

### **Risk of Population Outflow**

One survey has done by Kamaishi City, 2012 August, which asked previous residents about willingness to housing reconstruction. Percentages of residents who are willing to rebuild houses or anyway move back to original villages are shown in the table below.



**Table 2 Percentage of residents' willingness to return to original villages**

| Village   | Percentage of residents who are willing to return to original village |
|-----------|---|
| Unosumai  | 65% (land owner)      9% (rental)                                     |
| Katagishi | 52% (land owner)      12% (rental)                                    |
| Nabama    | 68%   |
| Hakozaki  | 53%   |

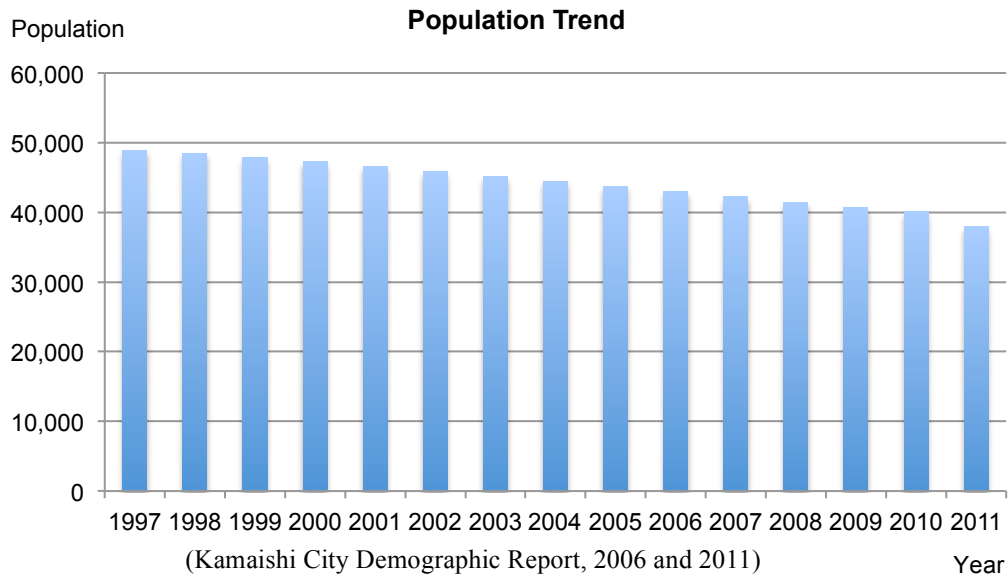
(Source: Kamaishi City, 2012)

However in reality, size of affected area, type of affected facilities, progress of land use recovery plan are really different depending on village. Also, many other background factors for people to decide to go back, such as family, relatives, friends, jobs, type of business, customer distribution, when and where do they born and grew up etc.

## **1.2 Original Issues in Japanese Local Society**

### **Aging and Shrinking Society**

Regardless of direct disaster damage, there are original issues behind, which is typical in Japanese rural areas. Firstly that is aging and shrinking society. In case of Kamaishi City, it flourished by iron industry in late 1950s and once reached population of 92,000. But after rationalization and recession of that industry, the city has been facing the rapid population decline, and now it's around 37,000. Ratio of elderly people is 33.5%, higher than the average of whole Iwate Prefecture or Japan either.



**Figure 5 Declining trend of population in Kamaishi City**

### **Difficulty to Attract Tourists**

Second problem is difficulty to bring tourists from outside into the city. As Genda and Otori (2008) pointed out from their research project “Kibou-gaku [Social Science of Hope]”, Kamaishi has the problem of "Loss of identity". According to them, after the recession of iron industry in Kamaishi, the city started to shrink and to face the difficulty of even increasing tourists, as if they lost an identity, or attraction in another word. They pointed out that tourism strategies are not utilizing and even the residents are not regarding the attraction of the city because of the strong image of past iron industry, in spite of abundant nature of mountain and sea.

Of course Kamaishi city has been trying a lot of policies and actually Green Tourism movement went well around 1998 ~ 2004. They once brought more than 1000 students per year into the city as school trips, and actually in May 2011, the city and local residents were planning to accept more than 200 students. They were intended to expand local home stay activities also in coastal villages on the collaboration with fishermen and local farmers. But as the disaster happened just before the planned trip schedule, that plan has never been implemented. The disaster gave huge damage to the city as well, by disturbing effort for revitalization.

### **1.3 Lessons Learned from Past Disasters**

#### **Definition of “Disaster Recovery”**

In the process of long-term recovery after a devastating earthquake disaster, the basic principle would be to create a better society by considering the damage caused by the earthquake as “creative destruction” (Hayashi, 2009). Particularly in Japanese society, it contains the original issues of shrinking society, from even before the disaster. According to Watanabe (1967), the concept of shrinking society is divided into two aspects; population and local (economical and social) point of view. Population point of view is that after young population outflow occurs, fertility gets decline due to again population structure, thus population declines naturally. In local point of view, economical and social function gets stagnated or declined due to population

decline. Lower economical function affects declining working population and thus economic activities in local society gets lowered. Lower social function affects lower welfare function of community or family, autonomy in neighborhood association. So, both population- and local-shrinking influences each other in a negative spiral.

In discussions of disaster recovery in shrinking society, we should note a statement “Disaster plays a role of exposing potential social change, and promoting the change” (Hirose, 1981). In the context of disaster happened in Japanese rural area, I summarize that disaster damage also includes the exposed social change such as shrinking society. Adding to Hayashi’s statement about creating “better” society in the long-term recovery, I define the term “disaster recovery” as following in this research:

***Disaster recovery not only means bringing population back to original status, but also solving original issues such as shrinking society that was worsen by disaster.***

Thus, we should deeply discuss revitalization of local area as ultimate goal beyond population outflows as direct disaster.

### **Previous Studies**

The meaning of this research will be based on the definition of “recovery” in the previous paragraph. In previous studies, discussion topics vary from research to research, about population

change, density, economical status, housing, community separation, village relocation, social services, government support and so on. Collected data also varies from demographic and quantitative ones to narrative and qualitative ones such as residents' willingness or opinions about identified factors.

First of all, in the scope of individual life recovery with individual or family factors, there are two studies on relationship between individual housing reconstruction and family relations. Ito and Takada (1996) studied on the relations between elderly parents and the grown-up children, and their housing needs in the case of recovery process of the Great Hanshin Awaji Earthquake. They found diversities of parent-child relationships and the needs to various choices that are supplied by the government and the private sector toward housing rehabilitation. Among abroad cases, Yoshikawa and Nakabayashi (2006) studied on multiple factors for housing reconstruction activities of suffered families, based on findings of interviewing research in Degirmendere after Marmara Earthquake, Turkey, on August 1999. Based on Family Stress Theory, they examined the relationship between economical, social resources and housing reconstruction activities after drawing a series of disaster processes about damage and much stress on evacuation-prefabricated housing.

As these two studies show, even though the research topic have narrowed down to individual life recovery, the way of housing construction and the way of family relations are both greatly

diverse. So, if it is in area or society scale, as an accumulation of those individual life recovery, the discussion will definitely be complicated and needs multidimensional perspective.

Secondly, in the scope of individual life recovery but with social scale factors, there is one notable study about willingness to return to original villages as a direct influence to preventing population outflow. Mizumura et.al (2010) identified the factors to continue to live in intermediate and mountainous area through the case of Yamakoshi, Nagaoka City after the Mid-Niigata Prefectural Earthquake. The factors of difficulty to continue to live in Yamakoshi were as followings; abolition of public transportation, inconvenience of medical or social welfare service and closing of commercial facilities. On the other hand, some elderly people got mentally recovered by continuing to live in Yamakoshi. After they returned to Yamakoshi, they had recovered because they restarted farming and found their role in their attached community.

An important point from this study is that even social or economic challenges originally in the local area will eventually influence decision-makings of individual local resident about keeping living in devastated area (i).

Thirdly, in the discussion on village or area scale recovery, three important studies will be introduced below. First one is about residents' intention about relocation of villages after heavy rainfall disaster in Tokai area (Oikawa et.al, 2010). They identified both direct and indirect factors; 1) very serious damage by the flood caused residents to give up reconstruction in the

stricken area, 2) risk avoidance due to uneasiness about recurrence of disasters. From this study, it is important to identify indirect factors such as uneasiness and avoidance of risks, as well as feeling of attachment (Mizumura et al., 2010), that might be embedded behind the opinions, needs or real actions (ii).

To capture these indirect factors, Yasuba et al. (1996) studied on community sense to the reconstruction plan at Suma ward, Kobe City that had huge damage by the Great Hanshin-Awaji Earthquake. They analyzed and discussed on the influence to local residents of reconstruction plan that is centered on roads reconstruction and city planning. They found the serious anxiety of local residents to reconstruction plans, complaints to government, and concluded with the importance of local community based action towards future reconstruction plans. They used group interviews and KJ method for data analysis, to graphically represent diversity of opinions, with a certain grouping or causal information. This way helps researchers to clearly grasp the overall opinions, feelings, or questions from residents, but not to compare between areas or characteristics of interviewee.

The last one is a study followed the recovery process focusing more on residents' action. Fukutome (2012) examined factors for successful case of whole village relocation after Mid-Niigata Prefectural Earthquake. As results, the village leader was strong-willed and already relied on by other villagers; mutual-help system already existed due to many blood relative

relationships among villagers; and discussions on relocation as a whole village have already been initiated ahead of government intervention etc. As shown in this study, it is necessary to also identify the characteristics of residents' real actions before and after the disaster to see feasibilities and long-term effect of collected opinions (iii).

Based on these overall literature reviews, and definition of “disaster recovery”, appropriate direction of this research is focused. To deeply discuss the local revitalization beyond direct damages, in complex and uncertain recovery processes, I conclude that it is necessary to note these three points.

(i) Considering influences of social functions or challenges to individual life recovery

(ii) Grasping indirect factors such as value or feeling behind opinions or actions

(iii) Investigating real actions of local residents including leadership or discussion

including pre-disaster to discuss potential self-governance in ongoing recovery process

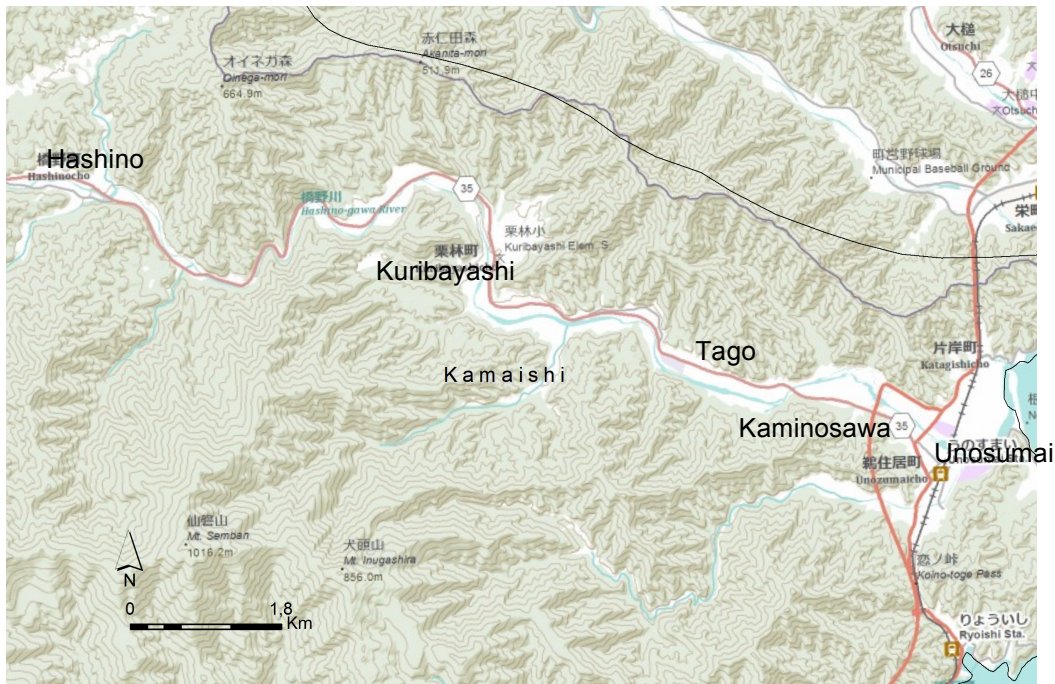
These are the points that distinguish this research from other previous studies.

## **1.4 Characteristics of Unosumai Basin and Recovery Situation**

### **1.4.1 Villages**

Next figure shows the geographical information of villages in Unosumai basin.





**Figure 6 Villages in middle to upper stream of Unosumai basin**

Hashino is a town that has Donguri local farmer’s market owned by residents, where is a mountainous base in Kamaishi green tourism activities. In Kuribayashi and Tagou, there are temporal housing areas where affected people can live in pre-fabric buildings prepared by government (basically two years limitation to use, but no rental fee). Tagou and Kaminosawa has an area for temporal shop street where affected merchants can run business in government-provided buildings as well. Especially the one in Tagou is called “Uno-Hamanasu” temporal street that has mutual support relationship and many events compared to other temporal merchants areas.

Katagishi is a town located very closer to coastal line but has characteristics of both farming and fishery. After the disaster, almost nothing remain except huge mountains of disaster debris in recycling area and a new mushroom factory. Nebama is included in Unosumai town.

Unosumai is a town includes Tagou village as well. Central of Unosumai is as a downstream of Unosumai River as well as the bottom of Hakozaki peninsula with so many functions such as municipality office, schools (both elementary and junior-high school), transportation (JR Yamada Line, Unosumai Station, national roads number 35 and 45) connecting four directions: central Kamaishi City, Nebama and Hakozaki villages, Hasino direction, and northern other cities.

Nebama and Hakozaki are fishery-engaged villages located on coastal line of Hakozaki Peninsula. Nabama has smaller size with only 60 families. It used to be one of the attractive tourism place with 2km sand shore and leisure facilities in small local beach resort.



**Figure 7 Temporal houses and shop streets are located along with Unosumai River utilizing some vacant fields**

## 1.4.2 Support and Plans from Government

“The Group Enterprise Subsidy” [Group Hojokin] is a national government subsidy system to support small and medium enterprises by letting them form a group, and proposing a recovery plan as both individual business and a whole group. The chance of application has been increased and now is the calling time for seventh application.

“Land Adjustment Plan” is ongoing discussion and plan by city government about how to rebuild new towns in the area total affected by the disaster. Due to the land depression by the earthquake and higher risks of future tsunami, many areas are pointed as “dangerous area” where the land use will be shifted to others such as farmlands, public park and so on. Some areas need to be fulfilled by land-elevation construction, that may takes three to five years until residents can return in safer conditions.

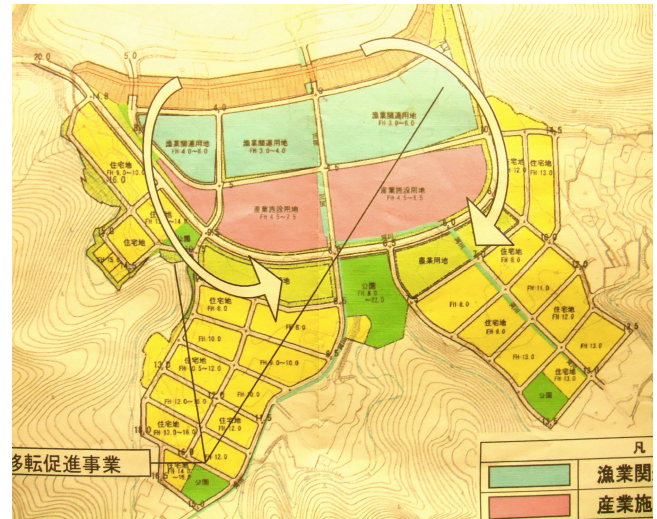
Figures as shown below is some of handouts that were distributed from government officer to residents in direct group meeting. Based on these figures and description, residents have to decide whether to rebuild houses in original place, let government buy their land or rental public recovery housing that will be provided by government after reconstruction of land and infrastructure.



Unosumai



Nebama



Hakozi

Figure 8 Handouts about Land Adjustment Plan distributed by government

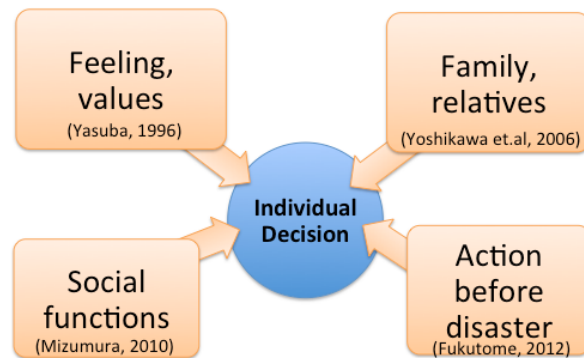
## 2 OBJECTIVE

The objective of this research is to find a possible way for local residents in Unosumai district to achieve “disaster recovery” which was defined in the previous section, through an ethnographic study on local residents’ willingness and action toward revitalization of devastated Unosumai district beyond 3.11 disaster.

## 3 MATERIALS AND METHODOLOGIES

As analyzed in section 1.3, research on disaster recovery should address various factors as shown in Figure 9. Those factors influence even small individual decision making such as whether to rebuild houses or not, where and how to restart their work or business. To discuss

revitalization of Unosumai as one society scale, as an accumulation of those decision-makings, qualitative research has ability to capture the whole view or research target with various factors, compared to vast scale census type survey on disaster recovery with macroscopic, demographic or economic data. Also, attaching to one community deeply let researchers follow recovery process chronologically, to discuss more in microscopic level, such as difference of individual people, villages or area.



**Figure 9 Influential factors in recovery process**

### **3.1 Manner of Ethnographic Approach - Informal Interviews**

Methodology of data collection in this research is informal interview referring to a book titled “Learning how to ask – A sociolinguistic appraisal of the role of the interview in social science research” written by an anthropologist Charles L. Briggs in 1986.

*We use interviews in exploring people’s belief about the future ... as well as their recollection of the past. ... Ethnographers generally rely on open-ended interviews rather than on surveys or questionnaires. Even those practitioners who urge fieldworkers to use surveys suggest that*

*formal instruments should be introduced after basic cultural patterns have been established through observation and informal interviewing... Taking a census seems to have lost its general appeal in recent years as ethnographers have become increasingly problem-oriented in focus (Charles, 1986).*

I followed his statement that formal interviewing such as survey, questionnaire or census should be used after establishing basic cultural patterns in the research site by observation and informal interviewing. I also acknowledge that conducting census is efficient for grasping demographic and economic information for vast scale. However, in post-disaster situation there have been tons of questionnaires and researches invaded victims life through sensitive recovery processes. From pre-survey, I observed that some respondents tend to hide honest answers due to some offensive attitude of interviewees or questions deeply related to mental damage and sorrow, or they themselves do not even know the answers due to huge uncertainty of their future vision in devastated area.

According to Charles, "informal interview" has much broader sense including "key-informant", "open-ended and "pre-coded" interview, "social visit" or sometimes without any set schedules or appointments.

Key-informant interview is one of the ways of collecting information targeting key-informants who have much more detailed or specialized information, or who has more

willingness as well as capabilities for verbally expressing cultural information. “Open-ended” interview is compared with formal interviews such as survey, questionnaire or census. For instance, it can be starting from mentioning about nice dress, interior of the room, which often leads respondent to talk about their family members that the interviewee exactly wanted to ask. “Pre-coded” interview can be used with open-ended interview as the way of questioning or proceeding conversation. Interviewers prepare questions / problems to be discussed well in their mind and proceed discussion exactly on the direction toward research goal. The interviews can be more like “social visit”, sometimes with or without appointments, at informant’s home or ethnographer’s residence in order to isolate the interview and obtain privacy.

### **3.2 Target and Process of Informal Interviews**

The target was local residents who still remain inside of Kamaishi city and anyhow restarted their life with work or business in 4 affected villages in the downstream of Unosumai basin; center of Unosumai, Katagishi, Nebama and Hakozaiki, where many of the residents (actually all of the interviewees) lost their houses at least, some lost their families, relatives, friends, working environment.

I collected interviewees through some local broad networks;

- 1) local leaders engaging in green tourism
- 2) Kamaishi Ladies Traditional Cooking Group \*
- 3) some merchants who restarted their businesses in temporal shop streets

\* Kamaishi Ladies Traditional Cooking Group (a private organization of key local ladies in Unosumai basin, aiming at succession of traditional cuisines and collaboration of local products both from mountainous and coastal villages)

The process of informal interviews is divided into two parts. I've visited the research site for seven times including four times pre-survey and three times main survey. Pre-survey is used to understand geographical or cultural situation, selection of focusing area, networking with key-informants, and identifying core problems for main-survey. In main-survey, six key questions from Q1 to Q6 were "pre-coded" and asked to more diverse interviewees following demographic distribution. Finally I succeeded in obtaining 19 interviewees including local residents from coastal villages or center of Unosumai area that had severest damage in the whole Kamaishi City.

**Table 3 The Process of Interviews**

| <b>Time</b>       | <b>Period</b>            | <b>Research Activities</b>  |
|-------------------|--------------------------|---|
| <b>Pre-survey</b> |                          |   |
| First             | March 18th ~ 20th, 2012  | joined a monitor tour in Kamaishi City, established connection with Kamaishi Ladies Traditional Cooking Group   |
| Second            | June 4th ~ 7th, 2012     | joined activities of Oishii Sanriku Oendan*, collected basic information about enterprise recovery process      |
| Third             | July 17th ~ 19th, 2012   | conducted pre-interviews to key informants in Hashino town, Nabama village through a network of Kamaishi Ladies |
| Fourth            | August 27th ~ 28th, 2012 | Traditional Cooking Group   |



## Main-survey

|         |                             |   |
|---------|-----------------------------|---|
| Fifth   | September 22nd ~ 27th, 2012 | conducted interviews to local ladies mainly in coastal villages   |
| Sixth   | November 21st ~ 30th, 2012  | conducted interviews to local residents in central Unosumai, merchants in Unosumai temporal shop street |
| Seventh | January 7th ~ 10th, 2013    | conducted interviews to merchants in Unohamanasu and Kaminosawa temporal shop street                    |

\* Oishii Sanriku Oendan is a student group of GPSS, conducting interviews with affected enterprises in Kamaishi or other coastal areas under the support of Iwate Prefecture.

**Table 4 Process of interviewee collection**

| Interviewees | History of Interview (○), Networking (*) |        |       |        |       |       |         |
|--------------|--|--------|-------|--------|-------|-------|---------|
|              | First                                    | Second | Third | Fourth | Fifth | Sixth | Seventh |
| Ms. M. Y.    |  |        |       |        | ○     | ○     |         |
| Ms. M. K.    | *  |        |       |        | ○     |       | ○       |
| Mr. T. O.    | *  |        |       |        |       | ○     | ○       |
| Mr. R. K.    |  |        |       |        |       | ○     | *       |
| Mr. S. I.    |  |        |       |        | *     | ○     | *       |
| Ms. K        |  |        |       |        |       | ○     | ○       |
| Mr. T. S.    |  |        |       |        |       |       | ○       |
| Ms. M. H.    |  |        |       |        |       | *     | ○       |
| Mr. S. H.    |  |        |       |        |       |       | ○       |
| Mr. S. S.    |  |        |       |        |       |       | ○       |
| Mr. Sh. I.   |  |        |       |        |       |       | ○       |
| Mr. E. T     |  |        |       |        |       | ○     | *       |
| Ms. A. I     | *  | *      |       | *      | *     | ○     |         |
| Mr. D. Y     | *  |        |       |        | *     | ○     | *       |
| Ms. R. M     | *  | *      | ○     |        | *     | ○     | *       |
| Mr. T. S.    | *  |        |       |        |       | ○     | ○       |
| Mr. Y. S     |  |        |       |        |       | ○     |         |
| Ms. H. M     |  |        |       |        |       | ○     |         |
| Ms. K. U     |  |        |       |        | ○     | ○     |         |

In the course of this research, I tried to put importance in establishing reliable network with local people, by visiting them more than twice, joining some local events, having meals together if possible. This is for two reasons as below;

- 1) to expand network and ask local people for introducing more interviewees
- 2) to track changing situation in recovery process and grasp honest feelings or ambivalence of local people as real as possible.

This is how I increase the number of interviewees up to 19 victims of this catastrophe. These manner as anthropologists were surely supported by past practitioners as shown below.

*The classical paradigm is provided by Kluckhohn's article on "The Participant-Observation Technique in Small Communities" (1940). She urges field workers to assume roles, such as housewife, teacher, and the like, that will afford extensive contact with members of the community in areas of interest to the research. In the eyes of Kluckhohn and of most anthropologists, participant-observation is not opposed to informal interviewing; the former rather provides opportunities for the latter (Charles 1986).*

### 3.3 Questions for Interviews

1) Are you willing to return to original village?

2) How do you consider problems of original village? Do you have any idea, solution or do you take any action?

Based on two main questions above, general questions as shown below were asked in pre-survey interviews.

#### **Basic information**

Age, family structure, the location of house / shop / company before and after the disaster, affiliation

#### **Past**

- What are attractions and challenges of your village originally?
- Have you ever lived outside of the village? When, how? Why did you return?

#### **Just after the disaster**

- Where were you at the time of disaster?
- How did you survive? Did you go to evacuation place / relatives house / move out to inland area?
- Have you ever thought of moving out from the village (or Kamaishi city) after the disaster?
- Don't you still have any fear to the original villages?

#### **Process of recovery**

- What was a trigger to decide restarting your business / work?
- How is your new life in temporal houses?

From pre-surveys, 6 key questions were selected to discuss not only returning to original villages but also revitalization. These questions were asked in main-survey.

- Q1: What was a **trigger** or **conclusive factor** for you to return to original village, restart your life, work or business?
- Q2: How are you ready for **taking risks** for returning to original village or restarting your business?
- Q3: How deeply are you **attached to** original village?
- Q4: What does this disaster **mean** to you?
- Q5: How do you address the **local issues** existed even before the disaster? Have you ever take any action to them?
- Q6: How do you paint a **recovery vision** of your village? How are you going to achieve that?

Based on informal interviewing method, rather than asking them directly, I tried to spend more than 1 hour for an interview to let them talk naturally about these topics. Thus, the order or way of questioning was depending on conversation with interviewee because there are so many sensitive topics for them who suffered from the disaster in any ways especially for whom with deep sorrow of losing family members.

In next section 4.1, the interview results will be summarized in short stories in accordance with Q1 to Q6 below.

Q1: Trigger or conclusive factor to return to original village or restart their life and business

Q2: Preparedness to take risks

Q3: Attachment to local area

Q4: Meaning of this disaster

Q5: Awareness and action to local issues existed even before the disaster

Q6: Future vision and action toward disaster recovery

### 3.4 General Information of Interviewees

General information of interviewees; age, location of living or business before and after the disaster, occupation change and damage situation will be shown in the table below. Publication of their information on this thesis is approved by each interviewee.

Table 5 General information of interviewees

| Interviewees | General Information |                                   |   |                        |
|--------------|---------------------|-----------------------------------|---|------------------------|
|              | Age                 | Location (before and after 3.11)  | Occupation  | Damage Situation       |
| Ms. M. Y.    | 50s                 | Katagishi<br>=> Hikata *1         | Shut down own milk business,<br>work temporarily for a local<br>restaurant  | Lost house and<br>shop |
| Ms. M. K.    | 27                  | Katagishi<br>=> Kuribayashi<br>*2 | Soon after 3.11, started volunteer<br>activities as an employee of NPO<br>Neos, then started own business<br>“Sanriku Hitorsunagi Nature<br>School” | Lost family<br>house   |

|                   |     |  |  |  |
|-------------------|-----|--|--|--|
| <b>Mr. T. O.</b>  | 60  | Katagishi<br>=> Kuribayashi<br>*2                    | Manages Bakery Anderson for 35 years, restarted in October 2011  | Lost house and shop                      |
| <b>Mr. R. K.</b>  | 80  | Katagishi<br>=> Tagou *2                             | Pursing a member of Kamaishi Social Education Committee for long time, founded an NPO Ohakozaki Citizen's Conference | Lost house and daughter                  |
| <b>Mr. S. I.</b>  | 50s | Unosumai<br>=> Tagou *2                              | Manages Taiyo Taxi for around 30 years, restarted in June 2011   | Lost house, office and taxies            |
| <b>Ms. K</b>      | 50s | Unosumai<br>=> Kuribayashi<br>*2                     | Manages K Flower shop for around 20 years, restarted in October 2011   | Lost house and shop                      |
| <b>Mr. T. S.</b>  | 38  | Unosumai<br>=> temporal house                        | Succeeded and manages Teramae Store for ~ years, restarted in October 2011   | Lost house and store                     |
| <b>Ms. M. H.</b>  | 45  | Unosumai<br>=> temporal house                        | Succeeded and manages H Barbershop for ~ years, restarted in October 2011  | Lost house and shop                      |
| <b>Mr. S. H.</b>  | 53  | Unosumai<br>=> temporal house                        | Succeeded and manages H Tatami Store for ~ years, restarted in May 2012  | Lost house and store                     |
| <b>Mr. S. S.</b>  | 60  | Unosumai<br>=> temporal house                        | Owner of Sasagen Auto Cycle, restarted in May 2012   | Lost house, store, daughter and grandson |
| <b>Mr. Sh. I.</b> | 77  | Unosumai<br>=> Tagou *2                              | Won election and pursue chairman position of Unosumai Property Distirict   | Lost house, granddaughter                |
| <b>Mr. E. T</b>   | 26  | Kamaishi<br>(born in Miyako)<br>=> Kuribayashi<br>*2 | Stop working in Kamaishi Rasuk Factory, started own Bar Konkon in Unosumai   | Lost fiancé's family house               |
| <b>Ms. A. I</b>   | 50s | Nabama<br>=> central Kamaishi *2                     | Manages Local Hotel Horaikan for ~~ years, restarted in January 2012   | Lost house, got damage to Horaikan       |

|                  |    |   |   |  |
|------------------|----|---|---|--|
| <b>Mr. D. Y</b>  | 23 | Morioka (grew up in central Kamaishi)<br>=> Tagou <sup>*2</sup> | Graduated an inland university, started working in Horaikan from March 2012   | Lost grandmother   |
| <b>Ms. R. M</b>  | 60 | Nabama<br>=> Kuribayashi <sup>*2</sup>                          | Used to own Local Hotel Maekawa, trying to restart while working as a manger of local restaurant                                | Lost home and own local hotel, daughter. Damage in husband's fishery |
| <b>Mr. T. S.</b> | 74 | Nabama<br>=> Tagou <sup>*2</sup>                                | Fisherman, green tourism guide, committee member of Unosumai Property District  | Lost house, fishery ship   |
| <b>Mr. Y. S</b>  | 57 | Nabama<br>=> Kosano <sup>*3</sup>                               | Transferred to working in a welfare service facility within Shinnittesu Iron Company  | Lost house, mother, wife and 2 other relatives                       |
| <b>Ms. H. M</b>  | 66 | Hakozaki<br>=> Kuribayashi <sup>*2</sup>                        | Used to be leader of Eastern Kamaishi Fishery Association Women Department, now working as care manager in Tago temporal houses | Lost house   |
| <b>Ms. K. U</b>  | 71 | Hakozaki<br>=> Hakozaki <sup>*2</sup>                           | Works in fishery association refrigerator, restarted in August 2012   | Lost house, husband  |

<sup>\*1</sup> Hikata is an inner part of Unosumai, where Ms. M. Y. is living in a public rental house.

<sup>\*2</sup> Interviewees in Kuribayashi, Tago, Hakozaki are all living in temporal houses.

<sup>\*3</sup> Kosano is an inland part of Kamaishi City where Mr. Y. S is living in a corporate dormitory.

## 4 RESULT

19 interviewees were classified into following 3 groups based on interview results by finding commonalities in each component Q1 ~ Q6 described in 3. 3.

### **Group1:**

- Founder of Sanriku Hitotsunagi Nature School, Ms. M. K. (27)
- Owner of Local Hotel Horaikan, Ms. A. I. (56)
- Sub-leader of Nebama Neighborhood Association, Mr. Y. S. (57)
- Founder of NPO Ohakozaki Citizens Conference, Mr. R. K. (80)

### **Group2:**

- Worker at Local Hotel Horaikan, Mr. D. Y. (23)
- Owner of Bar Konkon, Mr. E. T. (26)
- Owner of Teramae Store, Mr. T. S. (38)
- Co-owner of Hair Salon H, Ms. M. H. (45)
- Owner of Taiyo Taxi, Mr. S. I. (56)
- Owner of Bakery Anderson, Mr. T. O. (60)
- Owner of Sasagen Auto Cycle, Mr. S. S. (63)

### **Group3:**

- Owner of H Tatami Store, Mr. S. H. (53)



- Previous owner of milk shop, Ms. M. Y. (50s)
- Leader of Eastern Fishery Association Women Department, Ms. H. M. (66)
- Owner of Local Hotel Maekawa, Ms. R. M. (60)
- Owner of K Flower Shop, Ms. K. (65)
- Worker at Eastern Fishery Association Refrigerator, Ms. K. U. (71)
- Committee of Unosumai Property District, T. S. (74)
- Chairperson of Unosumai Property District, Sh. I. (77)



**Figure 10 Interviewees in Three Groups**

## 4.1 Interview Result

### 4.1.1 Founder of Sanriku Hitotsunagi Nature School, Ms. M. K. (27)

#### **Q1 I cannot return Hokkaido, I would remain in Kamaishi even I quite current job**

Ms. M. K. was born and grew up in Katagishi Town, but went to a university in Hokkaido to learn about field education. She has a dream of establishing a nature school in the future. After the graduation, she joined an NPO “Neos”, then working in a nature school in Kuromatsuuchi Town in Hokkaido. On the day of 3.11 disaster, although she could not get the exact information of Kamaishi in the beginning, she was a little bit optimistic that her hometown is ok. After seeing horrible video news of tsunami coming into Kamaishi City on the next day, however, she suddenly started to feel anxious about the safety of her family. Although she was told that it would be dangerous because of nuclear power plant accident, her willingness to return has been increased more and more as time passed. The representative of Neos was kind and strong enough to sense her feeling of shock, sadness and anxiety, then made decision to go Kamaishi City as an NPO that has a mission of contributing rescue activities in case of emergency. Just imagining short visit for confirming safety of her hometown and providing emergency goods to the area, three employees of NPO Neos left Hokkaido toward Kamaishi City.

Fortunately, her family was safe, but she lost her words by seeing completely changed hometown. “ Although the town was the most place I have known, it turned into completely

unknown place. ‘Where are we? Where is our house? Is the sea such closer to here?’ The best beloved town became the most horrible town I didn’t want to go closer. It was very sad, unbelievable, and my mind was filled up with confusion.

Thanks to the fact that her origin is Katagishi Town, the outside NPO Neos from Hokkaido quickly accepted by local communities in Unosumai district. They soon started volunteer activities by utilizing their experiences of working together with local people. As time passed, she started to feel strongly that “No, I cannot return to Hokkaido. Even if I quit a job in Neos, let’s remain in Kamaishi”. Not only direct support to evacuation area in Unosumai basin, she played an important role of connecting volunteers from Hokkaido with local communities, with diverse tasks from daily meeting to preparing meals and bathing time.

### **Q2 Hung a flag to keep living here**

Even though she feels anxious and worry about having quite less young generation around her, she made up her mind to remain in Kamaishi City. With Mr. Satoshi Ito, an employee of Horaikan who also affected by the disaster, they started a business from April 2012. The name is “Sanriku Hitotsunagi Shizen Gakko [Nature School]”, providing local tourism for outside people, and nature school mainly for kids who cannot play freely in devastated dangerous area.

“When we started this business, I finally hung a flag showing our decision to keep living here.”

### **Q3 Noticed that Kamaishi is still attractive**

Of course she once had fed up with boring Kamaishi City in high school days. She once had dream of being in metropolitan areas. But while spending her university days in Hokkaido, away from Kamaishi City, she started to realize attraction of her hometown. She noticed that the one step to outside brought her different aspect.

“For me, exercise plus being in nature equals being in the way I am. I grew up in abundant nature. I also love sea.”

#### **Q4 Intensive two years to gain precious network for my dream**

When she left Kamaishi City for university study, she found a brochure of green tourism activities in the city. Because she had a dream of running a nature school in the future, she was a little bit glad to know that there are such proactive green tourism promoters even in Kamaishi.

“I was planning to return after five years and then meet them. As I came back to here soon after the disaster and spent very intensive two years so far through volunteer and starting businesses, I noticed that I have already established network with key persons naturally that I was planning to meet later. This year is exactly the same year as I imagined ‘five years later’. I cannot imagine of starting my own nature school business without knowing them after I return Kamaishi as an original plan.”

#### **Q5 Childhood memories in Yamada nature school**

When she was in junior high school, she joined a nature school in Yamada Town where she

enjoyed some activities such as camping. This might let her interested in working as an instructor, she thinks back. With a dream of establishing a nature school, helping fishery or farming and bringing lively local festivals back in Kamaishi, she left the city promising with her parents to surely return in the future. She had already noticed the declining number of children and ding out local festivals year by year.

So, after she completed study in the department of field education in Hokkaido, she joined an NPO Neos where she works for a nature school in Kuromatsuuchi Town, to bring what she learns back into hometown Kamaishi.

#### **Q6 Connecting people beyond location and generation**

Based on one-year rescue activities with tons of volunteers from all over Japan, they started their own business for long-term contribution to whole Kamaishi recovery by three main projects. First one is providing volunteer tourism to increase local fans, repeaters for sustainable area. Second one is providing education opportunities through nature experiences for kids who lost safe and enough space for playing outside. The third one is accepting volunteers and interns to solve local challenges toward long-term development of the area.

Ms. M. K. is basically responsible for second and third. She manages after-school study club in temporal houses, field activities to bring kids to abundant nature within the city. She also helps local restaurants owned by local ladies who have talent in cooking traditional cousins.

“When I returned from Hokkaido soon after the disaster, I honestly thought my grandmother could not survive. That reminded me of a traditional dumpling which she used to cook. If she dies, I cannot eat that special dumpling any more, I thought. Actually she was found safe, but that experience made me realize how easily those culture can be disappeared if we do not succeed.”

Moreover, through the course of rescue activities, she met Kamaishi Ladies Traditional Cooking Group and realized that there are many local people who have various skills in food culture. Meeting them also made her want to learn succeed attraction of local food and nature.

“I myself was the person who left this town saying ‘Kamaishi is not attractive’. As I currently notice more attraction of Kamaishi, I would expect more people to feel in the same way. I hope that Kamaishi will be filled with a lot of fans. This is ‘recovery’ for me, what I think ideal.”

#### **4.1.2 Owner of Local Hotel Horaikan, Ms. A. I. (56)**

##### **Q1 Survive with everyone in Horaikan**

They day of the disaster, 38 people were evacuated to her local hotel Horaikan. She felt so regret on the day being able to do nothing due to danger and limitation to move out because of scattered debris, no electricity and water. From the next day, she started preparation to survive in Horaikan with increasing number of victims, around 100 people. She somehow opens broken refrigerator to obtain foods, utilized gas heaters, toilets that were washed away from somewhere

else, all to accommodate and accept anyone evacuated. She also played a role of cheering depressed residents up to maintain mental health, and created warm atmosphere to support each other among small community.

She already has talent of taking various actions speedy and energetically by involving others for help. This is because of her background, engaging in local revitalization activities for whole Unosumai basin or introduction of green tourism from 15 years ago.

Although all the residents from Nebama had to move to inland temporal houses separately, she restarted her business again in the beginning of 2012 so that everyone can return as a hometown.

## **Q2 Who is stronger than tsunami?**

Residents or construction employees needed Ms. A. I. and her local Hotel Horaikan, and this motivated her to keep maintaining the hotel from soon after the tsunami. Actually she fears the tsunami, and couldn't look at the ocean in front of her hotel for a certain period. She sometimes had thought of giving up regeneration of her village when she stayed night in temporal house in inland safe and convenient town. But every time she comes back to Nebama village seeing scattered debris, she made up her mind to revitalize and to live with Nebama.

“I remind a phrase from a granddaughter of my friend who spent some months after the disaster. ‘Do you know someone who is stronger than the ocean? The ocean is not horrible.

Those who can escape from the tsunami and can escape to higher place, they are the one who are strong.’ She is a daughter of my friend's daughter, who lost her life by the tsunami.”

She was shocked by the phrase spoken by such a little girl, and made up her mind to live with the ocean.

### **Q3 Sea wind brought me back**

Because her parents own the local hotel business, she sometimes spent her childhood time away from her parents. The only way to keep closer to them was to help the hotel business. Thus, she was really good at customer service and to find anything she can to help. After graduated from a high school, she suddenly felt huge pressure to success the business and wanted to escape from the hometown and join a college in Mito (Ibaraki prefecture, Kanto area).

“However, every summer when I feel a wind from the ocean, I suddenly felt lonely and return to Nebama. The sea wind brought me back to help the local business under parents.”

Thus, she has been strengthening her attachment to her hometown.

### **Q4 We should be independent**

Because she has strong attachment to her hometown Nebama, and also believes in successful revitalization cases such as from Hurricane Katrina, she strongly states the importance of independent local community.



“We should not wait planning or action from government. Even from small things, such as cleaning debris on seashore, we should execute revitalization within local residents’ power then let public sector to acknowledge. If we miss this opportunity, three prefectures Iwate, Miyagi and Fukushima on northern coastal part in Japan, will be behind.”

#### **Q5 Try anything she can and brow new wind in Kamaishi**

In the late 1990s, she proposed and installed green tourism activities in Kamaishi against strong protest from others. She was already good at involvement of key leaders, to make it possible. The activities succeeded to invite more than 1000 students per year to let them experiences fishery or farming activities, local foods and cultures. Residents seemed to lively spend their life with communication with younger generation from outside.

#### **Q6 Creating attractive world for kids and the world rather than just reconstruction**

She has been working actively from soon after the disaster. Especially it was great to make a decision to restart the local hotel Horaikan with huge amount of tsunami risk and debt. Moreover, even from three days after the disaster, her high frequency of media exposure to tell the reality of Kamaishi to the world was also prominent. She also has recovery vision as whole Unosumai basin to revitalize whole area by collaboration of local people both from mountainous and coastal side.

She positively joins many training visits to learn past cases of local revitalization, and gets new inspiration from them. “I want to create a new world here to accept and attract anybody from all over the world. For kids, I want them to grow up with diverse skills and sense of liberal arts. Like in the world of famous writer Kenji Miyazawa, kids who can play violin can also do fishery, and kids who loves painting can also do agriculture.” Based on those ideas, she indeed donates violins and offered classes by inviting teachers. In addition, she also plans to construct a new field on a mountain behind Horaikan, which has both functions of outside concert hall and evacuation roads. But actually she already has huge debt from even before the disaster. The issue is repairs and implementation of her wider vision anyway increases her debt much severely.

#### **4.1.3 Sub-leader of Nebama Town Association, Mr. Y. S. (57)**

##### **Q1 Reliable sub leader in town association**

Mr. Y. S. was born and grew up in Nebama village, just got a position of vice-chairman of Nebama Neighborhood Association 2 months before the disaster, January 2011. He has been working and gaining management skills in Shin-Nittetsu Iron Corporation for 38 years, and also younger than others in the village, he plays a role as main coordinator among the residents in recovery discussion. It was normal for him to utilize his skills to build consensus among Nebama community and propose to city government.

His parents were running local hotel business and had a role of community leader, this might also let him take leadership, he guesses.

“I might was lucky to survive and be able to live in the company's dormitory. There are more people who suffer in difficult living situation. So I should take initiative as someone who can rather take action among everyone facing difficulties.”

### **Q2 I hate tsunami, but love the ocean**

Even though he lost four family members including his wife and mother, he strongly expressed that "Although I hate tsunami, I still love the ocean." He already made up his mind to return to Nebama anyway in the future where currently nobody is living.

### **Q3 Kamaishi loyalty through working life**

He used to dream of urban life when he was young. But because he has been living in Nebama village throughout his life, and working in the top leading Shin-Nittetsu Iron Corporation based on Kamaishi, attachment to Kamaishi has been increasing due to work life there. He also thinks that his parents running local hotel also influenced to have attachment to local Nebama community.

### **Q4 Start of new Nebama history**

In Nebama village, all the 64 families' houses were washed away by the tsunami. So damage conditions are basically the same in such a small community. "How to let more residents to return

is the key for the recovery. We should have appropriate needs from residents and speedy implementation. We can regard this period as a starting point of new Nebama history, to regenerate our hometown and bring as many as people we can."

#### **Q5 Longer experiences and strength in management**

As a sub leader in Nebama Village Association, he supports the leader who is a straight fisherman and is not so good at management. "My 38 years working experiences in the leading iron industry, and 20 years experiences in labor association there, as backbone of my capacity, I'm good at labor issues, laws, public administration or elections." He indeed seems to gain enough power from even before the disaster to change local society and relied on by others.

#### **Q6 Proposing new ideas to city government as community consensus**

He leads Nebama village and they already submitted two proposals to Kamaishi City government for their original recovery plan. In January 2012, just one month after the first recovery plan from the city, they opposed to the height of sea wall, and proposed to lower to protect beautiful scenery from the village. In November 2012, they opposed to individual housing supported by government and proposed to build "collective houses" to let residents live together in the same building.

Especially for second proposal, he has long vision of recovery. "To recreate history and culture in Nebama, we shouldn't just rebuild houses or infrastructure. We need some decades in

the real meaning of ‘disaster recovery’. Our society has been already faced shrinking and aging.

Not only for those who affected by this disaster, he should also take care of younger generation so that they want to live here in the future. So, firstly people who survived in this era should settle down in rebuilt houses as soon as possible to be revitalized and then we should also take 10 to 30 years later into town rebuilding scope.”

About the second proposal of collective houses, he explained that it has some functions of community space, patrol, and mutual help beyond generations. “Residents in Nebama are relatively older, some of them will need to be cared several years later anyway. They would better to keep communication with others rather than owning a new individual house from now. At the same time, we want to invite younger families to live. These collective houses have community space so that anyone can spend their time freely not only for serious town meetings, so that older generation can also take care of little children of younger parents who have to work in day time. This idea is good for both because we cannot expect elderly care or nursery facilities to be installed in this small village. Anytime in the future, we need generation change, these proposals are basis for such a time in the future.”

#### **4.1.4 Founder of NPO Ohakozaki Citizens Conference, Mr. R. K. (80)**

##### **Q1 Reliable “patriarch” in local community**

Mr. R. K. was born in Katagishi, which has two characteristics of fishery and agriculture where eventually shrunk and urbanized through the history. He himself used to engage in fishery but started to working in Shin-Nittetsu Iron Corporation from his age of 20s. After the retirement, he has been engaging in social education activities to revitalize Kamaishi City for 20 years.

So it was normal for him to take leadership from soon after the disaster. Around 100 out of 690 residents were evacuated to one place for three months. He quickly asks support of foods or trucks for his friends living out of the city. He set common living rules to survive with everyone, and decided residents into groups for meals and chores etc. Even though he lost her daughter, he took such a leadership and relied on by others as a “patriarch” in the evacuation place.

### **Q2 I want to keep my eyes on “recovery” before I die**

Because he has been working so hard for 20 years to revitalize, he already has strong preparedness to keep living in the area.

“I definitely won’t let our area as a ‘marginal village’. I really want to keep my eyes on ‘recovery’ of this area before I die.” He says that he is going to extend a contract of his life in every five years, to educate others based on his twenty years experiences in revitalization."

### **Q3 Japan is still attractive**

While working in the Shin-Nittetsu company, he kept working for the head quarter in Kamaishi. But at the same time, he had many chances to observe other companies or other cities.

Every time he goes outside, or sometimes overseas, he notices the attraction of Japan and hometown. “I noticed that, still he have good points in Japan and felt that I want to take care of our hometown more.”

**Q4 Rather, good opportunities to promote residents’ discussion**

Even though he lost his daughter, he positively mentioned as below.

“In a good way, this disaster was a good opportunity. And we should let people understand this. I'm thinking in this way with long-term vision. Hardware such as buildings or infrastructure may be recovered in 5 or 10 years. But the real content of recovery should be taken time, and done with leaders and communities. A leader should let community discuss deeply and lively about how to live in the future. They might see differences of life style but might notice the common goal. Up to now, such a deep discussion and consideration has been neglected, due to lack of leaders, I think.”

**Q5 Twenty years ago, local area Katagishi has already been weaken**

When he retired from the company, he got sever sick and had chance to think about his own local area.

“I noticed that how terribly have we been cared our Katagishi town. We lacked town planning, creativity and appropriate human resources to lead the community against shrinking and aging issues. Many people have already left to inland cities for better job and education for kids.”

This year is the 17th year of his position as a chairman of Social Education Committee in Kamaishi. 16 years ago, he and other local leaders started to install green tourism activity in Kamaishi and next year established an association called “A&F” (agriculture and fishery) to promote communication of villages from mountainous and coastal area.

#### **Q6 NPO establishment and long-term social education**

Firstly established a new NPO called "Ohakozaki Citizens Conference" to bind up eight small villages in Hakozaki peninsula.

“I define ‘disaster recovery’ as ‘people are returning to their hometown’. Second Chinese letters of *Fukkou* (recovery) in Japanese means ‘revitalization’. So, it is impossible to recover without people returning and their energy. Also, we need common preparedness for this recovery stage. So I named that NPO as ‘citizens conference’.”

In the NPO, they have four working groups; 1) Implementing recovery plan, 2) Promoting employment, 3) Telling lessons learned from the disaster, 4) Commercialization of sea products. Especially for 2), he targets four million yen as annual income or new working style to have complete holiday in fishery villages to attract younger generations. Also, he proposes opening fish processing factories to let new residents work there and eventually get fishery right to engage formally in fishery. He often joins meeting with Kamaishi city government, and write articles to educate normal residents.



In addition, he also has another wider revitalization plan for whole Unosumai basin, such as expanding local families to accept more tour-students from outside to let them engage deeply in agricultural or fishery as one of occupations for their future.

#### **4.1.5 Worker at Local Hotel Horaikan Mr. D. Y. (23)**

##### **Q1 Invited by the owner and got a job in Horaikan**

He was born in Tadagoe Town, Kamaishi City in 1989. Now he is 23 years old. He grew up in single mother family owning a general store and went to Iwate Prefectural University that is located inland. The 3.11 disaster happened when he was a junior in the university. His family members were safe but the house was affected and decided to move to an inland city because it would be difficult to continue such a non-crucial business to people's life. Then he thought he has to earn a lot of money for his family and once got offers from companies in Tokyo. However, his mother asked him "Why are you going to Tokyo? This is your life, you don't need to think about us that much". Moreover he was invited by an *okami* (Japanese local hotel is usually run by a woman and that person is called "okami") of Horaikan, Ms. A. I, that "Why don't you work in Horaikan? We are restarting our business since we stopped after the disaster". Because he grew up in slow life in Kamaishi City until when he entered an inland university, he couldn't get use to Tokyo metropolitan life when he once tried to live there. He homing instinct was evoked and

started to think that “If I can go back to Kamaishi, that’ll be interesting, then let’s try to return.

I’d love to be selected in the way that ‘Please come and work with us because we chose you’. If they need me, then let’s go”. Finally, he decided to work in the local hotel Horaikan soon after his university graduation.

### **Q2 At the moment I prefer to live freely**

“If I quite the job soon after I only spend one year here, that’s embarrassing and I cannot learn anything from. As my life goal, I’m thinking of idly pursuing what I like, getting married around 29 years old. Currently I’m receiving salary from Horaikan, but at the moment I think about using it only for me doing something I like. If I’m getting married sooner, then I might start to think seriously. But at the moment I prefer to live freely and only pursuing my own happiness.”

Of course, he learns a lot from his work in Horaikan and he also feels fun to meet increasing number of new people through his work or life there. At least around three years more, he would keep working in Horaikan.

### **Q3 Finding myself escaping from Kamaishi although I like**

Even from the beginning of the interview, he stated flatly “I won’t make this town as my final home”. In spite of his critical and realistic point of views to disaster recovery in this town, he doesn’t try to reflect on ongoing discussion as a town scale. He accept himself being coward as he hide his own opinions in his mind. But even if he thinks by himself, cannot show any

conclusion to public, then ends up with settling down without so much effort to involve others.

“I cannot care about others like Okami-san. Now I only think about myself. Maybe my current position is very half-hearted, because I can escape. If I get really angry about this situation and think that I really want to change it, I may tell my opinions in public. But I don't have such a feeling right now.”

He finds himself returning to inland city every no-work day once a week, where he can spend time with his university friends. He finds himself avoiding driving a street in the town he grew up. He acknowledges that he is escaping from the reality and he is excusing to it. “I love this town. I love it but probably I'm expecting something out of this town because I'm not spending time here so much.”

#### **Q4 Invaluable network and experiences obtained while working in Horaikan**

Until he started working there, he hates hotel business or hospitality industry. After he experienced harsh working environment in kitchen, he assigned to a front position where he learns a lot from doing everything from customer service, internet, exchanging lighting bulb to secretary of Okami. Especially in the night shift when he manage everything at front for three hours alone, he can only believe and rely on himself. Finally he started to feel that tourism business is also interesting. Moreover, he feels more fun by meeting a lot of people that he cannot meet in other places.

“It’s very interesting, really fun to work here. It’s fun to be like family with other workers, and also I can eat meals here, which makes me pleasant as well. I can meet people that would be impossible to meet outside, definitely if I ended up with working in normal company in Tokyo. I’m looking forward to make more friends here.”

#### **Q5 Fear to the future of this originally shrinking town**

As Okami of Horaikan thinks, there are a lot of people willing to return to original villages because of their hometown. Indeed Mr. D. Y also came back to Kamaishi City due to homing instinct. “But ‘homing instinct’ of Okami or me is for those who used to live in Kamaishi. People coming from outside also should have their own ‘homing instinct’, to their own original places. If we think in this way, it goes on forever, right? Increasing population is very difficult. It means that the city will be responsible for the whole life of people coming in. If we think in this way, we cannot discuss easily about shrinking society.”

Also he thinks that the impact of recovery of Horaikan to the area around it is very small. Firstly, currently no people are living in Nebama village where Horaikan is located in. Before the disaster, there were residents but now, nothing remained, and only Horaikan exists. “Even if this Nebama Village develop again in the future, that will be very long term story. Maybe when our generation gets to 30s or 40s, it’ll be around 10 to 20 years later. It is said that new village will be formed at upper place on the mountain but that won’t be done in 3 or 4 years but should be 5 to

10 years later. We might not have Okami or Torao-san (Mr. T. S., who is a famous fisherman in the village; see section 4.1.18) together with us, as they get older. If so, it'll be really horrible because even now our generation and one upper generation who is around 30s are almost missing.”

#### **Q6 No exact vision to disaster recovery and revitalization**

##### ***Can we really give enough values to tourist coming all the way from inland?***

Opposed to Okami who has full of human empathy, Mr. D. Y as a son of a merchant, grew up with a belief that he should anyway earn money from his work. So currently as one worker at Horaikan, he has been concentrating on making profit for the company Horaikan. The experiences in a university a cappella group also makes him always think about the value in compensation for the time that customers (audiences) spend for.

Of course, tourists are visiting Kamaishi because they find something that they can only see or meet here. However, until when is that trend going to last? Even increasing the number of visitors is difficult. “I regard those people coming and staying here as temporal. People observing devastated area by disaster will disappear soon after one or two years. We also have staying customers of university’s study tour or listening to Okami’s talk, but that will be also limited to two or tree years more.” “The difference between staying at inland hot spring area is just the time, it’s three hours. Then can we as hotel located in coastal area really offer hospitality in

compensation of them coming all the way for such long hours? That's why I think doing tour business is very difficult here."

***What is the revitalization plan aiming at?***

Horaikan's Okami has been expanding her vision of disaster recovery and revitalization of the area out of their business scope. Against that, Mr. Yamazaki has very realistic and critical visions. Is her vision as a company Horaikan, as herself or as local residents? He often has difficulty to make it clear so he doesn't involve himself into Okami's vision. By looking at a brochure explaining about Okami's revitalization vision for whole Unoama basin, "I think what she says is just her own ideas, that's not company Horaikan's vision, just she shows her own fantasy into a brochure."

After the disaster, he had some chances to attend workshops for town building but was fed up with egoistic opinions from elderly people. "They're going to die in 10 years, this is not town building for their own. They are not the only one who decides the future of this town. How can they push your egos that much..." When he once attended a construction competition for an old residential area, he was disappointed to see architects selecting ideas without deciding residents who are going to actually live in the area. "What? Are those architects going to live here? They are not but local residents are." "For what purpose is Kamaishi trying hard on town building? We have quite less young generation. From now, we are going to have much less younger people,

then the shape of population pyramid graph will be more like reverse triangle. Any business is depending on people living here. When we think of the purpose of our town building, I noticed it's very vague and started to hate it." Even before the disaster, he has been thinking about that shrinking society. After affected by the 3.11 disaster, he cannot easily take action to 'town building that doesn't have any clear goal, unique answer and the end'.

***To begin with, what is "disaster recovery"?***

"I don't really like the term 'recovery'. What is it? What do we mean by 'recovery' is totally depending on person to person. In my opinion, I think it's ok not to get 'recovered'. It's enough if everyone is happy to a certain extent. If a person feels joyful and become happy, then it's probably 'recovery'. It doesn't necessarily mean that the whole town gets 'recovered'. If people feel happier than before the disaster, it'll be enough to say 'recovery'. I don't care having new buildings or cleaning debris. If we don't have anyone living here, it's ok to keep these debris as they are."

He realistically accepts that forgetting about disasters is also normal for people who are living in different prefectures spending totally different life. For those who didn't experience, it's impossible to understand. The Great Hanshin-Awaji Earthquake as well, and the 9.11 terrorist attacks in the US as well. He felt somebody else's problem when he watched a news saying it's been 10 years from the disaster and still having difficulty. "3.11 disaster is the same. The disaster

itself is not understandable for those who didn't experience it. I already gave up in that point, so I don't think for everyone to come from outside that much. Of course, for those who are really interested in, I really welcome them to come and make it as an asset for their life by seeing the situation that happens once in a hundred or thousand years. But this is not the thing to force everyone. It's not relevant for those who are not relevant. Thinking in this way doesn't help our tourism business though.”

#### ***Working in kamaishi city hall as a possible next option***

“It is unpredictable that when our Horaikan will be collapsed. Then it might be better to work in an established company or public sector.” By having working experiences for 10 months in private sector without any set manual, he is interested in working from government position. Public officers around him are all clever and interesting. They have higher skills in the way they execute tasks and assemble processes. “Seeing them makes me interested in working as a public officer just because they look fun in spite of tough work.”

#### **4.1.6 Owner of Bar Konkon, Mr. E. T. (26)**

##### **Q1 I just wanted to put lights on this vacant street**

“Nothing exists around here, as you can see. So I just build this bar here to offer a place to gather and lights on this street.”



Mr. E. T was born in Miyako City, locating in northern coastal area of Iwate Prefecture.

Around the time of 3.11 disaster, he was living in Kamaishi City and working for a Kamaishi Rusk factory. Although his house was washed away by tsunami, he started to find anything that he can contribute to this vacant town. Then in March 2012, he utilized the land of his fiancé's family, and challenged to make place where people can enjoy. Originally he has motivation to try something by his own, the disaster was a trigger for him to just try it without expecting profit.

“By putting lights as this bar, I want to contribute to anyone who is passing on this street.

Even the tiny light would make passengers relaxed. They should feel lonely to see nothing here.

Now we have some streetlights fixed but we really have nothing until one year passed after disaster. Already some people told me that ‘Ah, I got relived to see lights here’ that makes me feel rewarded to try it on.”

Actually once he opened his bar here, many local people started to gather and widen their community. He found it's worth to provide space and opportunities for that. “Some people just came here and made new friends. And the special case was that one person without any job at that time found a new job through community here. ‘I don't have any job now...’ ‘Ah, then you can come to our company!’ Seeing such a moment makes me feel really happy and find myself meaning to be here. The fact that I'm definitely contributing to someone finally makes me say with confidence that starting a bar here was a good decision.”

## **Q2 I'm still young and able to fail**

Even before the disaster he had motivation to maintain restaurant or bar and already reserved some money for that. But when he proposed the idea of establishing this temporal bar, his family and friends opposed to opening a bar in such a vacant and dangerous place. "They didn't expect customers, but I thought it's ok even if I don't have customers but just putting lights is enough. I ignored their opposition and told that 'Live and let live, because this is my life. I didn't care about failure any more.'"

He knows the existence of Group Enterprise Subsidy but didn't apply for it because he can start such a smaller scale business by his own money. There are some elderly people who have been living only for their work such as building contractor's office. Those people depending on such special un-substitutable occupation should be the one who receive subsidy. "The Group Enterprise Subsidy is not needed for a younger generation like us. Still we can have debts in terms of age. Anyway we can overcome difficulties if we try harder."

Of course, he sometimes gets mentally weaker. But as far as he contributes to someone, he maintains himself to be strong against such a huge disaster. "I can still try anything, still ok to try again any times. Errors are unavoidable in human life! It's just better not to be afraid of failure. Even if you failed, the only thing needed is just learning from it. No problem at all!"

## **Q3 Local people were kind to me although I came from another city**

“I’ve been living here for a while with my fiancé and people around here helped me a lot. They accept me such a stranger coming from another city. So returning a favor to them is also one of the motivations to start this bar. This is the only thing that I can contribute.”

To the question about the attraction of Unosumai area, he answered, “They accept everything, don’t have prejudice to stranger coming from outside, even for a tiny thing they soon come to and help me. Of course my hometown Miyako City also has such a nice culture but this Unosumai area has more and somewhat special. They have heartwarming kindness. Even before the disaster, we could easily get friends. They really helped me a lot.”

However, he only has prospect to continue for two to three years. As already mentioned, he doesn’t care about making profit and just covering living expense and food is enough for him. “I just started this business in two to three years prospect. I don’t have any long-term vision to continue it. Land readjustment plan will be implementer sooner or later, and then I have to leave here. In that point, I’m trying not to disturb those reconstruction activities.”

#### **Q4 Current business will be the one step to future dream of owning a restaurant**

Compared to other stores, he didn’t move into temporal shop facilities provided by government. He borrowed small truck sized prefabrication and did interior by himself.

After the disaster, he doesn’t work in previous company any more and has no idea to return. “I don’t really like to be employed by someone and forced to work. So I finally got an

opportunity and environment to try anything I like. Even though I have to leave this area in the future, I'll probably go back to my hometown Miyako and borrow a place as tenant to try the same. Just to keep working in a normal company is ok but I don't like to walk on a rail that someone already made. My ideal is establishing my own road and going forward on it, what I'm doing here will be the first step towards it. I should make effort more from now."

#### **Q6 Quiet local people to recovery discussion, and slow speed action by City Hall**

According to him, many local residents in Unosumai area don't tell their opinions in meetings with City Hall. It seems that they keep true feelings in their minds but he thinks they would better to tell those opinions honestly to others so as not to get stressed too much. But of course, such a characteristic of Unosumai residents is an attractions and a weak point at the same time. So he as stranger gives up to change such a nature of original local people.

Mr. E. T himself sometimes gives opinions to City Hall. Because the area have tons of people who lost their houses, his proposition was for those people who are currently living in temporal houses and letting them freely bring facilities out such as stoves, gas burner when they move out. "I went to the City Hall and proposed it, however they just answered that 'We will consider it'. It's good to consider but please give us the answer. They've kept it unsolved with just showing superficial attitude to 'consider'. They don't really make proposition to action, so I finally told them strongly in recent. I feel sorry to elderly people living in temporal houses. Younger

generation like us can overcome any challenges but I really expect more careful support especially to elderly people. This is the thing lacking in the current city government actions.”

Because he just started his business after the disaster, he does not belong to local residents’ association, he rather doesn’t like to take part in it. “I just go to the City Hall and tell what I felt about recovery. I know this is selfish. But I do because some people understand and encourage me proposing to government side. I know it’s not so effective to propose alone as just one of the residents. Of course it’ll be better to get consensus in a bigger scale discussion among residents but people around here don’t really try it. If we can move as a bigger community, then the City Hall may be up set a little bit more. With the unchanged situation with basements of building that has been remaining for quite long time after the disaster, 1 year and 8 months already passed. I think we need much speedy action.”

#### **4.1.7 Owner of T Store, Mr. T. S. (38)**

##### **Q1 Couldn’t tell customers to quit the business**

For about 2 months after the disaster, temporal houses have not offered yet, and tons of people were living in evacuation places spreading to many different areas. Many storeowners could not figure out where their customers are living at that time. So he could just visit around some families living in houses on mountainous side where did not have tsunami damage, to tell

them that he is going to 'shut down' his business. However, he eventually told customers "We feel sorry but please let us 'close' our store". He was planning to but could not tell them about shutting down business. From this moment, he already started to have ambivalence to restarting life and business in original village.

Around May or June 2011, after 1 to 2 months after the disaster, previous representative of Unosumai Merchants Association asked him to join temporal shop street. Mr. Sasaki firstly declined his invitation. He knew himself expecting someone else to do that. Some time later, however, he heard that there was no one who is joining that temporal shop street. This fact made him a bit frustrated because he cannot do anything as one of the enterprises in Unosumai. Of course, they did not get so many profits even before the disaster. Furthermore, nobody knows that how much population will be returning. Honestly he has more anxiety about the future than hope. He thought, however, that big scale supermarket would not come into devastated area so early, and then small store like his business might survive for a while as long as he decides to restart. At the end, he decided to open his store again in smaller scale with 2 years limitation in temporal shop street.

"It is said that temporal shop facilities would be available only for two years, so I just decided to try only for 2 years. At that time I spent about half week in Kamaishi for another work but we were mainly evacuating to inland city Hanamaki where is my wife's hometown. So I requested

my wife to accept my selfish demand to restart store only for 2 years, and told 'Let's keep living in the original village if we see the potential of the town during this 2 years to live safely again, if not, let's see at that time.' Yes, it was definitely my own demand."

**Q2 Only the graves left. Everything including parents was washed away by tsunami...**

"We evacuated and stayed at inland Hanamaki for half year after the disaster. I felt like to be kite without any string. I was feeling rosy in that period."

His store has started business around the beginning of Showa era (about 80 years ago), and he was the third generation owner. Before the disaster, his mother was the representative. He returned to Unosumai after finishing university in another city, because he had to succeed family business. Then he has been keeping the business for more than 10 years noticing difficulties to continue.

"For better or worse, the tsunami brought everything away. All the chain connected with me has disappeared. The only thing left is graves. My parents were also washed away by tsunami. I started to feel that we could freely go to anywhere and try anything. That could be in another place in Japan, or that could be abroad as well, then we can just try creating something new. My wife and I was thinking in that way and actually brainstorming about our future."

"But I somehow wander then decided to restart our original store. I was just frustrated to leave the village without any challenge. Anyway my wife and I are still 30s, still young and

healthy. So still have time and chance to try anything.”

### **Q3 Want to protect local people’s life but still wavering whether to return**

Actually he does not want to promote current town rebuilding discussion because to begin with he still has ambivalence to rebuild town in Unosumai area. But he cannot help involve in the discussion because the situation gets worse and worse without his support to build consensus among residents. The reason why he take such a positive attitude in town rebuilding discussion in spite of ambivalence seems after all, he was born and grew up in Unosumai.

“Rather than just Unosumai as a place, I have will to protect this local area. The location could be somewhere else, but I want to protect people and their life that used to be in Unosumai. At this rate, new town of Unosumai will be a just beautiful and clean place but we won’t be so sure whether enough people live there or not.”

For Mr. Sasaki, this Unosumai is the real hometown and somehow already gets used to some disasters or have kind of preparedness to them. But for his wife, who came to married from inland Hanamaki city, she should definitely scare Unosumai by seeing such a horrible tsunami and a lot of people washed away in front of her.

“Unosumai originally have more disasters or accidents than inland such as flood, blackout and earthquake. By witnessing such a huge disaster with such a big number of victims, my wife should feel that even living here may be the difficult choice. I’d like to care about mentality but at



this moment I don't have any enough reasons to persuade her to keep living here. Rather, I myself still doubts of the safety in Unosumai. Especially when we think about future generation, we might repeat the same thing.”

#### **Q4 Covering customers in inconvenient mountainous by food van**

In the temporal shop street called Unohamasu, Mr, Sasaki got to know some new other shops that they help each other. “We sometimes have difficulty but we could somehow survive until now thanks to others' kindness.”

As for their shop management, they have been adapted to smaller scale business with niche customer target.

“After restating our business here in temporal shop street away from the previous central area of Unosumai, we only have less than 10% of original customer coming by themselves. Originally, for small and local based shop like us, customers are not coming by car but they usually walk to our store closer to their life. But now, after the disaster, many customers have died, or even alive customers have scattered to new temporal houses so we don't even know where they are.”

To increase number of customers, he knows the importance of higher diversity of products in a store like supermarket, but that large-scale business was not what they have been doing for long time. He doesn't have enough capital nor motivation of investment to do that. He just stocks as enough products as they sell in such a special situation adapting to temporal shop street.

In terms of customer targets, they have a uniqueness to sell also in food van. Originally they have some elder customers who have difficulties to go shopping. Visiting those people were main target for T. Store to survive and actually good for customers as well. After the disaster, many merchants started selling in food vans because it was easier way to restart business by going around temporal house areas, so he once thought of not doing food van. But he noticed that original customers who were not living in temporal houses felt rather inconvenient for shopping, so he decided to continue food van to cover those customers especially in mountainous area.

#### **Q5 Unosumai used to be a good residential area but not for commerce**

“At this rate, this town maybe going to be in hard situation, in terms of commercial sector, or anything else. We used to have merchants association in Unosumai but never had shopping avenue, store was just scattered in the town. Unosumai wasn't a good town for both customers and merchants. Although it was good residential area but wasn't commercial area at all.”

However, Unosumai also has some potentials, firstly it has good access to transportation with some big intersections connecting 4 directions to other areas, to central Kamaishi City, mountainous villages Kruibayasi and Hashino, coastal villages Nebama and Hakozaiki, and to northern town Katagishi and Ootsuchi, Unosumai was the place that many people are gathering and passing. Actually it was more convenient than mountainous or coastal small villages in terms of meeting daily life needs. So, he thinks that Unosumai should utilize such a good function as

intersection to let people stay longer, do something else out of their main aim to come. He believes that those scattered stores would better to get together closely, eventually merchants can have better business and customers can have better shopping.

#### **Q6 To Begin with, we shouldn't create town here**

Land readjustment project (“puzzle” in his word, meaning discussion and action to put what kind of facilities in which part of the town) will start soon in Unosumai. To make residents’ idea clear before the formal implementation, he and some others are taking initiative to conduct survey on other merchants’ opinions. They hardly have younger generation, especially 30s like him, who can do office work such as making handouts, circulating survey sheets. “Even though the readjustment project is implemented in Unosumai, the town will just look clean and beautiful. The problem will be stricter if the real residents’ lives don’t get formed in the town. Especially Unosumai is not the area where new residents are coming in. Even though we build the new town there, do population, real long-term residents really return?”

“This is a primary discussion though... to begin with, is that really the best way to create town there in Unosumai? When I visited graves in the town, I found some of names on grave stones have same date they died, 3 people in the time of tsunami in Maiji era, 3 more in tsunami of Showa era and more in this 3.11 disaster. This land already has experienced repeating tsunami but created the town again in the same place. I still doubt that should we end up with creating a

town relying only on seawall. In my opinion, we shouldn't. Even on the day of tsunami, I already realized that we should never create town here, we happened to live here where we shouldn't live. So when we create next town, I really want to overcome these problems.”

Residents have less choice where to live in Unosumai. It seems that a lot of people who expect to move to safer upper hills away from tsunami, but in the suggestion from city government, they couldn't find choice like that. Government said that soon after they confirm residents' consensus, they would make new seawall to protect the town so that residents' can return after 5 years. According to their simulation, Unosumai with seawall will not affected by tsunami in the same scale as 3.11 disaster, but they demanded to escape because the simulation is not 100% sure. “Anyway, I don't believe at all that just seawall can protect the town. Rather, I have been thinking for long that we'd better to move as higher place as possible that have less risk of tsunami, as well as merchants and create a new town. I'm still thinking in that way. However, as the government already cut an option of moving to upper hills, the feasibility of my idea will be lower and lower. But as compromise, I currently think that just the merchants area may have chance to be created on hills.”

***We won't be able to protect everything***

“Honestly, my first idea was opening one new safer area and creating new town there. This is because we are all part of Ootsuchi gulf, so rather than finding safer hill behind in each small

villages, more people may return if we create just one town that is really safe. I understand that people love to return as closer as possible to where they used to live. But it may be totally impossible to protect all small villages especially in coastal area, rather than that, we should think disaster prevention as a whole Ohtsuchi gulf. If not, all the villages may have halfway security in the end. I was actually expecting governments' leadership in this way.

Even before the disaster, the population has been increasing rapidly. Even though people still love to remain in Unosumai, a lot of people also think that they cannot stay due to fears to tsunami. For those who decided to live with such fear to tsunami will be ok to remain here, but it is already impossible for those who worry about tsunami risk in spite of attachment to the area.

“Even I myself am still thinking. If we care about next generation, we may repeat the same thing...” In spite of such an original town building idea or ambivalence in his mind, he cannot express honestly in public discussion he said. Even in a casual conversation with others, most of the people regard his idea as impossible. His distress seems going to be more and more serious.

#### **4.1.8 Co-owner of Hair Salon H, Ms. M. H. (45)**

##### **Q1 To keep ourselves closer to Kamaishi**

After she graduated from a high school, she started to help her parents business of barbershop in center of Unosumai. After the disaster, she was evacuating to another place Yamada Town,

and faced difficulty to receive information of Kamaishi other than from newspapers. So she started to do voluntary hair cut activities in evacuation places in Kamaishi city, to be closer to her hometown. "I thought it was better than just staying inside of small temporal house." As for facilities, she was helped by Barbers Association, and could smoothly restart their business in Unosumai temporal shop street.

### **Q2 Critical timing to return**

"There will be no house around even if we return to our original place in devastated Unosumai. But we don't have enough time. Currently we, five members in our family, are living in a temporal house. My parents are already 70s and a daughter is second year in a elementary school. So, right at this moment, we want to rebuild our house and life."

She seems to be upset to make their life stable as soon as possible with her older parents and a little child. It seems that now is a timing to try harder in this special conditions.

### **Q3 I want to return, but vacant Unosumai**

Ms. M. H. did not think about moving to another cities because of closer relationships with original customers embedded in the local communities. She shows relatively high willingness to return to original place in center of Unosumai, and thanks to customers that have longer relationship from their parents' generation. "It is impossible to start this business from 'zero' stage. Our business is embedded in the local community here."

But also cares that there are no house even if they rebuild the shop. In spite of her willingness to return to original location described in Q2, she also shows difficulty because of current limitation for reconstructing houses due to government' Land Adjustment Plan.

#### **Q4 Relatively smooth to accept post-disaster situation**

She was offered tools and facilities for barbershop business for free by Barbers Association. Moreover, they didn't lose so much original customers because many of them are living in mid-stream area of Unosumai where is safer from tsunami and their current temporal shop is located in. Although she wants to return to original location as soon as possible, she somehow accepts current situation and keeps business regularly.

#### **Q5 Needs of gathering merchants to one place**

Ms. M. H. raised a difficulty of local merchants' sustainability because of huge supermarket emerging in central Kamaishi or next Ohtsuchi town.

"After the disaster, we are discussing that merchants have to gather up at one place, so that customers can finish shopping or tasks at once within walking distance. If not, local merchants like us will not be able to sustained."

#### **Q6 Parallel discussion with stubborn landowners**

She feels that it would be better to keep the current merchants community that were created in temporal shop facilities within the two years, but the problem is to build consensus as a whole in

Unosumai including landowners who oppose those new ideas for town rebuilding. So almost gives up to tackle with those stubborn landowners.

"Those stubborn landowners only have interest in their houses. They don't care about us, younger generation. They sometimes reject professors from outside or stories of past experiences in Kobe earthquake. We currently lack people who are in between those old people and us, those who can take manage with responsibilities. But disaster bring them away who can take leadership in those dangerous situations." "Unosumai only has a fixed plan to rebuild schools and roads. We cannot receive updated information if we don't attend discussion."

Thus, she tries hard to build consensus along younger merchants. She established a new association with 15 merchants whose age is 30s to 50s. Also, she prints out maps of Land Adjustment Plan proposed by government and discuss appropriate locations of town facilities in future Unosumai, involving her customers and other closer merchants. Detail story will be introduced in the section 5.

#### **4.1.9 Owner of Taiyo Taxi, Mr. S. I. (56)**

##### **Q1 I happened to accept short-term driver job offer**

After the disaster, Mr. S. I. evacuated to inland Esashi area in Kamaishi City where his cousin was living. Life there was in a way that he somehow escaped from the reality has happened in



Unosumai. “For few days just after the disaster, I was feeling like ‘Whatever happens, happens’.

I had nothing more horrible than I experienced, I nearly dying by being washed away by tsunami.

So I didn’t even care about taxi business at all. Staying at comfortable cousin’s house in safer inland city also helped me get relieved. It doesn’t mean that I forgot about Unosumai, but I was indeed spending easy life, idling at home with enough foods. So I took for a while to start thinking about next step. Honestly I even thought that restarting my business would be impossible.”

Even during evacuation in Esashi, however, he still had so many backlogs of work such as registration of discarded taxi damaged by tsunami, reporting to a Taxi Association and an insurance company. While he was doing such a bothering works, he found that he still have one taxi left. He had been thinking of how to do with it, but he may not have any other choices than to restart.

At last, until June 2011 when he got a right to move into a temporal house, he undertook a short-term work as transportation between Kamaishi station and Yamada Town. “Around two months after the disaster, there are quite a few taxi company opening. He was requested to do that courtesy job because he had luckily one taxi left. But of course he declined because it’s impossible to commute Kamaishi City from inland Esashi where he was evacuating, is around 2 and half hours away from central Kamaishi station by car. Yamada Town is much further on

coastal line, and it takes more 50 minutes by car from Kmaishi station. “When I declined, the person told me that ‘Ah, you cannot do that.’ then I happened to reply back ‘Then I’ll do’. This is how I restarted business.”

The work was only in the morning and the evening to transport psychological counselors to elementary school in Yamada. Coming from inland Esashi in Monday morning, picking them at Kamaishi station at 8 am, dropping them at Yamada, the opposite way at 4 pm, he repeated this till Friday every week. During the weekday, he stayed inside the taxi without taking bath. Then he returns to inland Esashi on Fridays with laundries. After continuing such a life till middle of June, he has been keeping work as normal taxi.

**Q2 Lets’ try as much as I can, because I had survived.**

Luckily or unluckily my daughter graduated from high school in the same March as the disaster. Other sons also finished schools so I thought as long as they finish study, then the only thing we need is earn enough money for our own life. Until the day of the disaster, he had his own house on the second story of his Taxi office. Behind the building, his mother and younger brother was living in the new house that was built with his late father’s money in January 2011, only 2 months before the disaster. “Rather, it was better in a way that I have nothing left that I succeeded from previous generation. The tsunami washed away and everything was gone that my father crated over his single generation. Losing such a new house within 2 moths was waste of

money indeed, but honestly it was all from my late father's money. So the only things have left was just our company name and the license for taxi business. It's rather better. So I can just try as much as I can."

### **Q3 I have little attachment to Unosumai though...**

Some other interviewees said that even if the area gets land elevation, they won't keep living in the area where affected by tsunami. "Anyhow I have survived. If I once more washed away by tsunami then I won't restart business any more. But I cannot live 1000 years more until next disaster in such a huge scale. As this taxi business started here in Unosumai, I only had an option to restart in here. I originally have more customers in Unosumai, the number has been declining though. Our business is only with a base here, customers will be also in trouble without us in Unosumai."

He was born in Kamaishi but spent some time in inland Toono City as his father moved then came back to Unosumai when he was 10 years old. Taiyo Taxi used to be a branch Unosumai office of Kamaishi Taxi, then 39 years ago his father started individually as Taiyo Taxi.

"Although I transferred school and came here, I have little attachment in Unosumai."

### **Q4 I can move to anywhere If I only have taxies and a phone**

The office of Taiyo Taxi is facing towards a national road. That national road will be 1.2 meters higher and 4 meters wider due to land adjustment plan in Unosumai. This means that the land

owned by Mr. Iwabuchi will be reduced 4 meters as well. If so, taxi vehicles won't go up to the road from his office then anyway he has to move to somewhere else.

Of course, he can continue business in current conditions only with small office room. But because he made so much effort to write application for Group Enterprise Subsidy to rebuild damaged office, he wants to receive as much monetary support as possible. Currently, center of Unosumai area is limited for residential construction but permitted for offices or storehouses with simple basement. As long as for buildings built until the end of March 2013, another subsidy will be provided for relocation based on value assessment of that time. So he already started building an office (damaged one by tsunami) for the time being so that he can receive subsidy later. And interestingly, the new office has a room sized exactly 4 meters away from the national road; it means that he can also cut the office on that line just in case.

“I thought better to use up subsidy rather than the risk of being not allowed to use after keeping for long time without use. It seems that land adjustment plan will take many years to be completed, so I just decided to take action first. Moreover, I already have another office in central Kamaishi City as an option for relocation. I can move to anywhere else with a phone and taxies.”

#### **Q5 Originally declining customers in Unosumai**

“There used be many young people or students as customers. Long time ago, when fishery or iron industry were flourished, many people went drinking bar and used taxi to go home. But after

the recession of those industries, taxi business has been also shrunk even before the disaster. Now our taxi service is only used by elderly goes to hospital or for shopping. Now many housewives also have their own car, and replacement driver service is now available for drivers who drink.”

#### **Q6 Group activities for Group Enterprises Subsidy prevents main business recovery**

Taiyo Taxi joined a group called “The Group for Regeneration of Unosumai” that formed to receive Group Enterprises Subsidy. Total amount it 31 enterprises but their business field is totally different from each other. From the point of business point of view, that group could be hardly said as “group”, actually it is unrealistic for them to do group activities as a whole group. To get subsidies, however, enterprises have to submit not only their own business recovery plan but also whole group’s activity plan for recovery and how can each enterprise contribute to it. It was really frustrating and bothering to summarize those documents and plan whole group activities that will not be implemented eventually. In his opinion, it is better to give up group activities and just form a group to only receive subsidies.

“Eventually the origin of this subsidy system itself only matches with fishery and seafood processing companies. After the second or third application, other field’s small and medium enterprises started to receive this subsidy but seem not to match with this system. Whole group activity is second priority. Group Enterprise Subsidy should be used only for business recovery.”

After passing application of subsidy, his and other enterprises have been taking so much time

for group activities that is not related to their main business. For example, he had to make flyers, put them in taxis for advertisement of World Cup or new products sold in another shop street. He is angry about being forced to spend so much time on such a volunteer work, but government told him that it's because they receive money as a group. "Barbershop as well, they also join such a group activities as volunteer. That's not good, it's totally negative effect for us who does business. Then why don't they let us focus on our main business? At least I can come up with a way to contribute as taxi business by patrolling around and reporting some emergency situation in temporal houses. That kind of activity is better I think."

He reads recovery plan proposed by city government but honestly he doesn't believe it. They may implement as planned but then anyway he has to move away from this current base due to road adjustment. In this point, he cannot help saying that the recovery pace is really slow. He cannot wait at all until the time that Land Readjustment plan is implemented. Thus, he has been doing anything that they can from one to the next.

#### **4.1.10 Owner of Bakery Anderson, Mr. T. O. (60)**

##### **Q1 All thanks to others**

Mr. T. O. started his bakery business 33 years ago in central Kamaishi. It was normal for him to restart his bakery business even after the disaster because of longer relationship with customers

in Kamaishi City. From long time ago, he has been continuing business and helped by his customers or merchant association even though he got new opponent bakery store near by his place. "I only have this occupation. I haven't thought of moving to other cities and work for someone else being already sixty years old. I cannot be employed. So I didn't go to Tokyo!" "It was waste of relationships that we have been establishing for long time, so we didn't quit the business. I wanted to restart as soon as possible. But anyway all deeply thanks to others."

### **Q2 Within minimum business conditions**

He himself did not want to move to other cities to work for others' bakery stores, but now maintains his own business only with family members with no budget for employment and inviting his son to help him. He is trying to continue the bakery at least some years while he can borrow the temporal house lot.

### **Q3 Appreciate local community deeply but still fears tsunami**

During the interview, he expresses the appreciation so many times to everyone including local customers, officers from Regional Development Bureau. Thus, he wants to anyhow contribute to local society, and indeed donated some amount of money from bakery profit to elementary and junior-high school nearby. But after shutting down his bakery in the future, he also wants to live inland Morioka City to take enough rest.

"I want to return to original town Katagishi, but I still clearly remember the scenes of horrible tsunami, that swept houses easily and bring cars with mother and children away. I don't want to remind those experiences... but have to keep living with them in my mind until I die, because this is a given life." "I have many friends in Morioka, where I used to live for four years. I also think of moving there and enjoy stable life there."

#### **Q4 Better to adapt water flow**

Some others propose him to rebuild a store in central Kamaishi because of current land availability. But they are afraid of land adjustment plan anyway anywhere they move, so they currently just keep staying at minimum business scale in temporal shop facility to preserve money. "We currently don't hire anyone, and also borrowed a slot in Unosumai temporal shop facilities, and maintaining business only with family member are both good for cost reduction. They also borrow two vans to sell bread around temporal houses; this is their original sales way from long time ago.

"It is so hard to find a place where they can live safely and earn profit from bakery at the same time. I think it's better to just let our body and adapt to water flow."

#### **Q5 Merchants against modern times**

He already noticed that the way of merchants avenue might not match with current society, because of less successors in each merchant and opponent such as cheap and big supermarkets.



From long time ago, he himself changed own sales way by utilizing food vans to sell around but does not intervene other merchants so much. "We should rethink the way of merchant, and it's decreasing attraction. This issue is not only the case for Kamaishi, but for all over the Japan. To tackle with huge supermarket, scattered merchant is less powerful, and we should also compete in price. I have been thinking of how can we differentiate from big stores. So our sales way with food van is one of our strategies."

For other merchants, he just pointed out that they should also think about their original sales way but seems not intervene or educate others that much.

#### **Q6 Keeping away from complicated discussions**

His bakery also joins a subsidy group called "Group for Regeneration of Unosumai", but confused by diverse opinions and plans also from some other discussion bodies. After the disaster, his son came to Kamaishi to help him. So he himself concentrates on bakery business and let his son to join and manage those complicated discussion activities.

#### **4.1.11 Owner of Sasagen Auto Cycle, Mr. S. S. (63)**

##### **Q1 Thanks to reliable distributor contract with a maker**

“Tsunami made me once think of shutting down my business.”

The trigger of restarting was invitation from Fishery Association or Maker (Yamaha) because

they need engines that are the essential goods for fishery recovery. He thought it might be better to start something than nothing.

In his business of fishery engines, Sasagen Auto Cycle purchase from a maker, and products are reached to fishermen through Sasagen's sales network. There are only 13 shops including Sasagen that have distributor agreement with the maker. So qualified after-sales service or maintenance for fishermen is also included in business.

“Fishermen are working with living nature. Their engines may be broken around 5 am in the morning or just before the time they are about to head out to sea. As small enterprises closer to those users, we can and have to deal with such an emergency needs. So the maker really understands the importance of our role and decided not to ask any big trading company instead because they worried about lacking such a careful maintenance for customers who had 30 to 50 years relationships with local engine shops. Thus, I can also say that such a reliable distributor agreement helped me restart business. Actually it's good to try again.”

### **Q2 Probably I will continue just 5 to 10 years more for myself without overwork**

His customers were normal residents who buy bicycles or motorcycles, and fishermen who buy engines. Fishermen are regular customers but originally business itself was micro scale.

That's not something to be expanded infinitely, and they have a limitation within some areas such as their own fishing village.

“Fishermen were affected by tsunami but they have been already declined originally. I don’t have any successors anyway so just continuing this business for 5 or 10 years in slower pace is ok for myself. Yes, my generation will be the end.”

“I have sons but they are working in inland city or Kanto metropolitan area. They don’t have any motivation to move here. Rather I don’t have any motivation to succeed to them neither. This is really tough work. We often asked by fishermen to come to seashore for engine repairing under very cold temperature with very high tide. It’s so cold and nose is running. When I was younger, I could endure to raise our children. But our children already became independent, so I don’t have to work as harder as before.”

“Rather, I once thought of shutting down after the tsunami as a trigger. But I was just recommended to restart because subsidy for fishery would cause more fishermen’s recovery then eventually lead to special demand.”

### **Q3 Attractive people in Unosumai**

“After all, attraction of local area in Unosumai is people, because we have many generations who have been living here for long time. We had good communication among us, people collaborated well in local festivals, and any other events were very active, too.”

### **Q4 Surviving with special demand, no complaints in current temporal store**

Currently he has special demand that enables him to somehow continue business. Mr. Sasaki

is in the group “The Group for Regeneration of Unosumai” that receives money from Group Enterprise Subsidy. Because he requested subsidy’ use only for store building not for any facilities, he hasn’t actually started to use subsidy.

In this current temporal shops street, they don’t need to pay any rental fee. He doesn’t have any complains, rather current store space is bigger than previous one, he wants to stay as long as he can in this temporal shop until he is told to move. The decision whether he can really rebuild store and storehouse at the same place or not will be anyway made later. That is totally depending on how the land readjustment plan goes, what is going to happen when the national road really gets higher and wider.

Even if government will cover relocation cost later, then it is permitted, he doesn’t want to rebuild now because it’s going to be waste of money and work to negotiate with carpenters or to move big facilities in and out. “Currently it’s not inconvenient to stay here. I’m not in a hurry situation to earn a lot of money to live. Also, just having one lonely store on the street, synergy effect can’t be expected. While adapting here, we may have some positive sign for recovery, by seeing readjusted roads, then one or two shops on street... It’s rather better to return after that.”

Merchants in Unosumai used to be scattered around but as we are now feeling synergy effect together in this temporal shop street, there is an option to create a new integrated commercial facilities in the new town. “We finally noticed the value of being together after experiencing for

the first time. If many merchants like grocery store, laundry shop and barbershop could gather at one place, it would be better for us to organize some events, to invite people in. For customers as well, they would stop by somewhere different from original intention. So I agree with this idea.”

#### **Q5 Small merchants against shrinking society**

“The challenge for merchants has been aging society. This could be in any other fields we merchants also lack successors. Many shops shut down their business in their generation. Customers tend to flow into other towns with bigger scale shopping center although Unosumai has more in terms of population. As I also had experience as a representative of Unosumai merchants association, I was always struggling with coming up with new direction to solve.”

#### **Q6 Seeing both problems and potentials**

##### **(i) Group Enterprise Subsidy**

##### ***Eventually, How to Write Application Form was More Important Than Content***

Sasagen Auto Cycle joins “The Group for Regeneration of Unosumai” that received group enterprise subsidy. When they fill in application forms, prefectural government officers came and gave advices from description perspective. They prepared for some expected questions, decided who to answer and then went to inland Morioka City all the way only for presentation. There were many other enterprise groups, and each had so many pages of documents. So how to write in prominent way was also important. Such a technique was needed especially for those who

really need subsidies. So some people who could pay for and utilized consultants passed application easily and recovered faster.

“It is strange that we could only apply unless we summarize all the documents as a whole group although the money will be finally distributed to individuals. Probably the governments can only inject money to group activities, to excuse that they used tax for the whole town. Is that really the only thing that people graduated from excellent universities can come up with?”

### ***Local Volunteer Activities Unrelated to Main Business***

Not only they felt strange in application process, they also see some problems in actual activities after passing application. Rather than about main business, how can they contribute to local area was the main issue in application form. For example, how can they succeed experiences for disaster prevention for future generation, can they really cooperate to telling stories to tourists from outside etc. They once had to join an event to plant cherry trees along the line of tsunami damaged area and ate food together with tourists from outside.

“Such PR activities or telling disaster experiences could be done by ourselves without any instruction. In spite of national support system, volunteer-like activities occupy almost 80 to 90% in what we’ve done under the Group Enterprise Subsidy.” “The subsidy should directly support thriving in the business. So the money use should aim at promoting land elevation and readjustment construction, merchants’ recovery, population increase and then settling down. So

application process as well should be smoother.” “Anyway it was ok we could finally passed the application and better compared to requesting huge amount of money to family. Actually we were really worried whether we can really get it or not, then some other groups couldn’t pass at the end of such an effort.”

## **(ii) Integrated Commercial Facilities**

### ***Expectation to a new Integrated Commercial Facilities***

As Unosumai has been forming a ‘naturally-generated shopping avenue’ with scattered shops, now the idea of integrated commercial facilities have evolved. If they miss this occasion, merchants may again be scattered and won’t be attractive for consumers, according to an expert from outside. Actual discussion among merchants in Unosumai is progressing, most of them agree on such a new way of shopping avenue. “But just as my own business, on the contrary, huge engine sounds should bother other shops such as tailor or jewelry shops. Just the integration plan doesn’t match with our business. So I’m basically hoping to rebuild individually in my original area.”

### ***Bottleneck***

“So the only thing we need is how we successfully get consensus from people. We need landowners’ corporation, government’s appropriate instruction or land acquisition and large agreement by original merchants. “Indeed negotiation with land owners is really tough. Some

land owners insist ‘I’ll never give up whit land because we have been succeeding from ancestors’”.

### ***Potential to solution***

According to a professor from Oosaka, there is one case to solve land use conflict in the time of The Great Hanshin Awaji Earthquake. In one area of Kobe, there were two houses that own commercial business, and in between was a house of an office worker. To rebuild new stores, these merchants requested that office worker to move to another place and they created new shared-store in between. In such a way, residents in that area continued discussion once in a week to create new integrated commercial area. Rather than waiting for government officer to facilitate discussion, it was better to discuss ‘how can we rebuild our town’ with neighbors in smaller scale, around 10 people. They had so much different opinion in the beginning, but actually it was faster and less conflict eventually.

“I’m dreaming such way of recovery, I really want to rebuild ideal town. If such a big city in Kobe could achieve that, with diverse landowners, then we can also try integrated commercial facilities here. With less population and complicated landowners compared to Kobe, as long as we learn how to persuade and negotiate others.”

He also addressed the need of appropriate leaders although he doesn’t have enough energy to take initiatives. “We need younger people who can take leadership with passion and strongly tell



others ‘our town is going to decline in the future generation unless we don’t pursue this way of town building. I wish we had someone who can spend his own time all for our town, aiming at one ideal goal promoting everyone’s corporation. If I were told to take such a position, I cannot at all because I have my own business though.”

#### **4.1.12 Owner of H Tatami Store, Mr. S. H. (53)**

##### **Q1 Being strongly recommended by a boss and customers**

He was born in Miyako City, moved to Unosumai when he was 3 years old. After his father have died suddenly when he was 24 years old, he started to run tatami (Japanese traditional mat for typical housing before modern society, made of rice straws) business. His house and tatami factory was washed away by the tsunami and he had no motivation after the disaster. Besides, tatami business was already shrunk due to demand decline in modern type housing.

"While I was living in an evacuation place, many customers have visited me. They surely encouraged me and asked for restarting business."

After around 10 days from the disaster, he met a previous boss of another tatami shop, and was strongly told “You have a talent of Tatami professional. Restart your business!” He worried about financial issues to reinstall expensive facilities, but confirmed that he can luckily receive insurance money for machines damaged by tsunami. Then he finally decided to restart business

from May 2011, borrowing a vacant house in the beginning.

## **Q2 Thanks to insurance coverage and special demand**

His wife opposed his idea and encouraged him to be employed by someone else. But after he confirmed financial safety by receiving insurance coverage, he restarted the business by himself and was indeed better choice. He has a friend, who was employed by other tatami shop but could not keep position after the end of 2011, due to slight demand decrease of tatami. On the other hand, he could receive special demand firstly for temporal housing facilities built in the first spring to summer in 2011. Recently, he also gets tatami order to rebuild individual houses because some residents started to leave temporal houses and rebuild new houses.

## **Q3 I love nature**

Mr. S. H. showed attachment to a life closer to nature. This is a reason for him to keep living in the area. "The ocean, river, fishing, picking up mountain edible plants... I love nature here."

## **Q4 Realized real supporters**

By this disaster, Mr. S. H. appreciates precious boss and customers to encourage him because he cannot quite tatami business that he has been continuing for 30 years beyond so many disturbances. "For instance, I did not have enough money for house rent three days before the deadline. In the case of our tatami business, we do not have stable demand and it is difficult to plan making profit. But I was luckily enough to receive an order just before the payment deadline.

I have many other experiences to overcome such problems. So it is impossible to decide when to quit the business." People who encouraged him to continue the business is important supporter that he realize after the disaster.

#### **Q5 Danger in traffic**

He pointed out the dangerous roads in Unosumai, narrow walking ways and curve. Some people regard increasing traffic as positive factor, but the traffic used to be less and safer.

#### **Q6 Prefer to keep staying in the current temporal shop**

"If possible, I would like to keep using this temporal shop forever, because it is free. If I can stay longer than the rental contract of 2 to 3 years, I would love to pay for fare because this location is better than previous one. Now we are in the form of merchants avenue, with more people gathering. But previously, we both rent land and house / factory. Besides, the location was away from center of Unosumai, nor on main road, with quite less traffic.

#### **4.1.13 Previous owner of a milk shop, Ms. M. Y. (50s)**

##### **Q1 Quit milk business but want to keep working life**

She has been continuing her milk business in Katagishi for most of her lifetime. Due to small and old type of business only selling milk, she had no idea to restart it. But she just love to work regularly, it is unnatural for her to keep staying inside of house without any work, and then she

started to work as a temporal helper of local restaurant. In the summer of 2012, she helped a temporal local restaurant that was owned by another interviewee, Ms. R. M., in Unohamasu temporal shop facilities. She just helped sometimes due to high demand at that time, but she is now finding next work. "Now, I have two options for next job, working in a restaurant of new mushroom factory where my husband is going to work for, or in a cafe in central Kamaishi."

### **Q2 Did not take risks in restarting milk business**

Because Katagishi town is closer to the ocean, she and her husband used to love fishing. But still they cannot bring themselves to seashore because of fear to tsunami.

About the reason of shutting down milk business, she mentioned that difficulty of taking so much risk. "In the past, each milk business owner has an area to sell milk, it was totally local-based. We have been keeping such a small and old style. But in this modern era, big and cheaper supermarkets are coming in. So, after the disaster, it was almost impossible to reinstall expensive facilities such as refrigerators. Also, many of our customers have died by the disaster. So when we think about both huge debt and less customers, we had no choice to restart that."

### **Q3 Sea wind let me feel comfortable**

Living Katagishi town on coastal line for many years, sea wind seems to be the key for her to feel comfortable. Now they are living in a public flat, at a little bit inland area of Unosumai.

"Even here, I cannot see the ocean nor feel the sea wind. This let me feel difficulty to be

completely relaxed." This is how she attached to original Katagishi town.

#### **Q4 I myself want to keep working**

This disaster seems to be timing for her to shut down her old milk business. Interestingly, after that having no job for a while, she noticed that she wants to work anyway, as her natural personality. "By staying at home all day, I often feel so strange to do nothing. I often look at clock and remind the time to do some chores in milk business. "

#### **Q5 Needs of welcoming younger generation**

About local issues, she explained, "Katagishi used to have so many blank paddy fields. Now is the time of generation transition. We need new places to work and live for younger generation."

#### **Q6 Vision of rebuilding own house**

Katagishi town is also planned to implement land-elevation. She expects that construction to finish so that they can rebuild house in upper place.

#### **4.1.14 Leader of Kamaishi Eastern Fishery Association Women Department, Ms. H. M. (68)**

##### **Q1 I couldn't easily abandon my hometown**

Ms. H. M. was born and grew up in Hakozaki village. After the graduation of high school, she was invited to work for a Kamaishi Eastern Fishery Association. As she gets older, she started to actively organize and manage ladies department in the association. Especially she has been

engages production and succession of traditional seafood through cultures. After the disaster, the road to the village was almost unavailable due to tsunami damage and tons of debris. She walked through on the narrow fence separating the ocean and the land to confirm her grandchildren safety. She had such a horrible experiences to evacuate and survive after the disaster. "I've once thought that I never want to live in such a horrible and dangerous place. But I couldn't easily abandon my hometown where I grew up. I want to return until I can move by myself."

Although she shows such a willingness to return, her activities in fishery association is almost stopped right now. But she got a new job in temporal housing, to return favors to people around her who helped after the disaster.

### **Q2 Scary until roads are rebuilt**

She wants to return her village Hakozaki but feels scary. "I cannot go there right now. At least until roads are safely rebuilt."

### **Q3 Spending 60 years in Hakozaki**

She mentioned that Hakozaki is her accustomed village where she spent 60 years and knew everyone each other. "This is special to such a local community. We know everyone. We greet to everyone. We already knew each other."

### **Q4 Importance of bond between people to people**

Ms. H. M. really appreciates her relatives and friends helped her after the disaster. For

example, she was firstly evacuating at relatives' house. When she noticed that most of Hakozaki residents evacuated to inland places, she had to walk and find where others were. At that time many people on roads helped her telling right way, or driving her to the next town. She realized the importance of bond between people to people.

#### **Q5 Hard and cheap fishery labor**

Especially when she was young, she had tough time due to hard and cheap labor in fishery. She raised such issue based on her own experiences.

#### **Q6 Expecting roads safety**

Currently, she is expecting the safety of infrastructure in Hakozaki. As already touched before, the road to Hakozaki is literally a lifeline for people living there. “I can have a hope to return soon if the roads reconstruction start at least. I expect safe roads that fire service of ambulance can go through to Hakozaki. If not, it will negatively influence for those engage in fishery.”

#### **4.1.15 Owner of Local Hotel M, Ms. R. M. (60)**

##### **Q1 Encouraged by friends and husband**

She was born in another inland city but came to Nebama village when she get married. She has been running local hotel business in the village throughout her life. Of course, her house and the hotel were clearly washed away by the tsunami. Also, she lost her daughter, and was really

depressed with deep sorrow from that. Although she has been shocked for a while, she gradually started to join and organize some local cooking events to offer traditional cuisines to citizens and visitors. And now maintaining a temporal local restaurant in Unohamanasu temporal shop facility, as a stepping-stone for her future vision of restarting local hotel business.

One of the triggers that she gained motivation for restarting the local hotel was a reunion to celebrate the age 60 held in February 2012. "I was encouraged by one of my friends, who has been suffering from cancer. Although I thought I already decided my mind to live in Nebama, adversely I was cheered up by the friend."

Another influencer is her husband, who is a straight fisherman, and the leader of Nebama Village association. As he restarted his fishery, she also restarted to join and help fishermen's activities from early morning. "I thought it was tough in the beginning. But by doing the same things with my husband, I can also understand how hard it is, and indeed fishery is joyful."

### **Q2 Opening a mountain to restart local hotel**

Soon after the disaster, she thought that it is impossible to restart local hotel any more. However, gradually her husband restarted his fishery and she also restarted to decide where to relocate the local hotel. Because it will be on the middle of a mountain, she can believe safety.

### **Q3 Our heart is the one although we live separately**

"By living in this Nebama Village for 36 to 37 years, I see here as my 'hometown!'" For high



school, she went to a school in Tokyo for 4 years, and came back to Iwate Prefecture due to a promise with her parents. "It is the time you see from outside when you understand attractions of the hometown." Now she has strong attachment to Nebama with some experiences after the disaster. On the exact day, many of Nebama villagers evacuated to upper hill and inside a forest. They had to spend whole night under cold, windy, sometimes snowy weather. After spending a few weeks together in another hotel Horaikan as evacuation place, everyone had to move into temporal houses in the end of March. "From that time, we gather once in a month for a Town Association. Although we live separately, our heart is the one."

**Q5 Nebama is a nice village**

She didn't really mention about local challenges but just said "Nebama is a nice village".

**Q6 Nebama Village is proceeding very well**

Ms. R. M. optimistically said, "Don't need to worry because our Nebama village has neighborhood association with frequent meeting. I think Nebama has strongest bond and proceeding recovery plan in our community. For example, we are going to have a share house in our village and we already decided a leader for the facility. I also accept people from outside. Without a wind from outside, local area will not be developed. Our heart is the one even though we live in different temporal house now. Residents can come back and spend their rest of their life as normal as before."

#### **4.1.16 Owner of K Flower Shop, Ms. K. (65)**

##### **Q1 Reminding a word from husband who passed away at 3.11**

Ms. K. has been running this flower shop for 24 years. In the disaster, she lost her husband. She once thought of shutting down her flower business after the disaster but she reminded her husband's word saying, "If you keep working anyway, you'll never lose your job" then she restarted it. When the Unohamansu temporal shop facilities opened, the Chamber of Commerce invited her to reopen her shop. She has already taken management consultation from them, so was happy with the invitation. Now she honestly reminds back it was good to restart the business.

##### **Q2 Willing to live at the same place of the shop**

For stable and easier life, she prefers to return to original location. "Of course I want to return. We used to have both our house and the shop as combined. It was easier and more convenient. We could be flexible to meet customers' needs from the local community, because we were also living there. Now, living different place from the shop, it is harder. We would better to utilize our own land in the original location in the center of Unosumai."

In addition, she wants to meet customers' flower needs for those visit graves of people have died by 3.11. This is because her original shop was located at the bottom of a temple and graves.

##### **Q3 After all, I only have Unosumai to return**

"I have not thought of moving to other cities. After all, I only have memories in Unosumai.

Like everyone, I never wanted to see the Unosumai area in the beginning. It would be so painful to even see Unosumai itself especially for those who lost someone in the Disaster Prevention Center in Unosumai (this is a public facility and not appropriate for real evacuation, but due to evacuation trainings have done here, many Unosumai residents evacuated there and lost their lives. It is said more than 100 or 200 people was killed there.) But after passing one year, I started to realize that 'after all Unosumai may be the place to return.'"

#### **Q4 Supporting each other to survive among merchants**

She said that Unohamasu Temporal Shop Street where her flower shop locates has more events and stronger teamwork. In the beginning, that shop street had been supported by volunteers. And now they believe they have many customers also from outside.

"Now we can enjoy being together. We are often picked up by newspapers. Only in this one-year, we see *kizuna* - bond - among our merchants, supporting each other. This may be the reason how we manage us to be strong."

#### **Q5 Issues of scattered merchants for convenient shopping**

She pointed a problem of scattered merchants in Unosumai. Before the disaster, customers had to travel around to find a certain shops. She expects local shops to gather at one place. She thought that, for example, schools, a postoffice can be built at one place, and merchant avenue could be next to them.

#### **Q6 Expecting speedy reconstruction of schools to bring residents back**

She takes action to restart her business, but she might have relatively optimistic vision for others to return in the same way.

"Last summer, in the season of *bon* (Buddhism cultural period to worship ancestors, especially important for the first time after someone have died), we opened temporal flower shop at our original place by borrowing a tent. Customers and the temple that owns graves appreciated us. Like this, if we take action, gradually people may return. Currently, we only have debris in Unosumai. If we put lights on street one by one, the area might increase liveliness. So, probably schools come first and best effects to bring people back. I expect city or prefectural governments to take speedy action for that."

#### **4.1.17 Worker at Eastern Fishery Association Refrigerator, Ms. K. U. (71)**

##### **Q1 To take care of husband memorial ceremonies**

Ms. K. U. was born in another village in Kamaishi City then came to Hakoziaki Village when she got married. She has been working in a refrigerator to process and deliver seafoods. In this disaster, her house was damaged by the tsunami, they could somehow survive in the second story but could not even repair due to sever damage. Unfortunately she lost her husband by tsunami. She evacuated to Yokohama where her children were living but didn't think of keep staying there

for a long because she anyway had to return to take care of funeral and Buddhist memorial service for her husband as cultural norms. Also, she only knows her children's family in Yokohama but in Hakozaki everyone knows each other that makes her feel relaxed.

### **Q2 Love but fear the ocean**

From her original house, and current temporal house facilities, she can see the ocean. She still loves to live closer to the ocean, for some familiarities, but feels fear at the same time.

### **Q3 Mental support by neighbors' intervention**

She is not originally from Hakozaki Village, and outgoing enough to join activities outside the village. Sometimes she faces jealousy or too much intervention from other residents, or just asked where were you last night for example. But at the same time, she appreciates neighbors to mentally take care of her because she is now living alone after her husband have died by 3.11.

### **Q4 Communicating friends as a breath of my life**

From before the disaster, she has been joining activities of Kamaishi Ladies Traditional Cooking Group that aims at preserving and succeeding cultural and taste of traditional cuisine in Kamaishi. She was invited again in September 2011, and got so relived to see close friends. Others also welcomed and appreciated her to come after the deep damage. "I noticed that connections through the group is a breath of my life. It is good for me to change mind away from sadness in devastated Hakozaki by communicating with friends and offering foods to visitors."

### **Q5 Behind other villages**

About local issues in Hakozaki Village, she mentioned that Hakozaki is behind compared to other villages. Because the village is located in the middle of Hakozaki peninsula, on coastal line, a few roads connecting with central land is vulnerable. In terms of transportation, information, education, in many ways. Also, she has been suffered from some jealousy relationships with neighbors because she was not people who was born and grew up in Hakozaki. She clearly stated that current Hakozaki does not have any attractions after losing richness in fishery by the disaster.

### **Q6 Fishery is the key for recovery in Hakozaki**

Personally she thinks working as her hobby, and plans to rebuild house to live with her children's couple. As for future vision of Hakozaki Village, she wants everyone to return and rebuild vibrant town. Especially she expects recovery of fishery as Hakozaki used to be, to produce employments and foods to share among residents.

#### **4.1.18 Committee of Unosumai Property District, Mr. T. S. (74)**

### **Q1 Won the election to leave a name in the history**

He was born and grew up in Nebama village, engaged as a fisherman for pelagic long line tuna fishing when he was 18 ~ 29 years old. In childhood, he found the ocean in front of his village, the biggest ocean in the world, and just thought to be a fisherman to sail out to the world.

From 1990s, he also started to contribute to activities for Kamaishi City, such as tour guide for green tourism. He also won an election for a committee of Unsumai Property District. This position is to manage property forest area from old Unosumai village, but he himself has another motivation to leave his name on history line because he officially won the election to be the committee. After the disaster, he naturally keeps the position, and shows strong willingness to return to be closer to his attached sea.

### **Q2 Still love the ocean, but also cares a lot about future risks**

Mr. T. S. left a very impressive comment just after the disaster “Even though the sea was so horrible, I still love to watch it. That’s my hometown.” Although he shows such a strong attachment to a coastal village Nebama, he keeps telling residents and tourists about the importance of safety and quick evacuation to upper hills. This is because he has a friend of him living closer to a river, who did not evacuated to upper hills and have died because he could not see the ocean. As an original tour guide, he loves to share his experiences and lessons learned from the past, he strongly tells visitors about fears and dangers of tsunami because he cares future risks a lot.

### **Q3 I love Nebama from the time I was born**

According to him, his house is the oldest one in the village. It seems that from ancestors, they have strong attachment to Nebama. During the interview, he again expressed a interesting phrases,

“I love Nebama village from the time I was born”. In a TV program that captured life in Nebama just after the 3.11, he notices his unconscious mental instability without the ocean, "If I don't see the ocean, I cannot feel better." This is a phrase he left, only one week after the disaster.

#### **Q4 To survive together**

He evacuated to the local hotel Horaikan first, spent around 2 weeks to survive together with everyone. After the Horaikan was selected as dangerous location for evacuation, he had to move to inland as well as others moved to some other evacuation places. During the period, his neighbors from the same Nebama Village was closer and they support each other. Sometimes, Ms. A. I., an owner of Horaikan, visited them to tell everyone's voice, worries, to keep connection of Nebama Village.

#### **Q5 Importance of expanding green tourism**

He raised the importance of tourists staying in local area rather just passing. He used to engage in green tourism activities, but he added more important factors; fishery products, human resources and enough space of facility to accept tourists. He at least notices the weakness of tourism activities to let visitors just pass thorough Kamaishi. To accommodate more visitors, he expects more organizer and local families to let visitor deeply experience fun of local fishery.

#### **Q6 Fishery, green tourism, and a committee**

As described in Q5, expressed his own willingness of retrying green tourism activities. To



enjoy his life as it was before the disaster, he will also pursue fishery and a committee of Unosumai Property District. He has some ideas of utilizing local wood from that property, for new chairs of tables in recovery processes.

#### **4.1.19 Chairperson of Unosumai Property District, Mr. Sh. I. (77)**

##### **Q1 To pursue a position of chairperson**

He used to work for Shin-Nittetsu iron company for 42 years. After the retirement at the age of 60, he won the election for a committee of Unosumai Property District, that manage public forest owned by old Unosumai municipality long time ago. Now he is a chairperson, and naturally proceed the position even after the disaster to pursue till the end of his term.

##### **Q2 Have to believe in the no more occurrence of such a disaster**

In this disaster, he lost his granddaughter. He answered that “It’ll be a lie if I say I don’t have any fear. But we won’t have such a huge disaster any more and also I’d like to be careful not have such a damage like this time.” He seems to think that he will not have such a damage any more within his lifetime. He might just want to believe in the safety to live in Unosumai.

##### **Q3 Hard to get out of familiar community**

He ran for election of Unosumai Property District with one of the reasons to contribute to local society. To a question that has he ever think about moving to somewhere else after the

disaster, he answered that “It’s getting difficult for me to establish new friendship as I get older, with less dream and hope”. It seems that the age influences him to have strong attachment to his hometown.

#### **Q4 Importance of bond or reliability**

Mr. Sh. I. stated that now is the time to build a bond among local residents. For him, it was normal to leave his house without the door locked. But after a lot of residents move into temporal housing, he noticed the difficulty of community being separated into scattered locations. There are some people assigned as patrols to confirm security of temporal housing area. Also, the City Hall tightly holds all the information of those residents and they don't basically disclose who are living where, even for citizens who are trying to recreate community like Mr. Sh. I.. Based on this experience, he reminded and strongly insisted on the importance of bond or reliability among local residents as they used to have naturally.

#### **Q5 Lacking youth involvement to local culture**

About original local issues, he raised a story related to community or culture. As one of the famous cultural events in Kamaishi, Toramai (cultural dance parade of people imitating tiger with special facial mask and costume) is great opportunity to connect people beyond generations. In Unosumai area, they have Youth Association to help those cultural events. “People in Unosumai didn’t have bond recently. We have less involvement of younger people or children into local

festivals where they can learn about mind of gratitude, admire to others”.

#### **Q6 Difficulty of effect and sympathy in recovery discussion**

Mr. Sh. I. behaves relatively differently from others in Group3. He has been trying to build a consensus about land use plan among residents but he tries to bind up people who were affected or landowners, which seem to be in his scope.

Relatively different from other interviewees in Group3, he somehow tries hard to engage in recovery discussion. He firstly joined a series of workshop to discuss attraction and future vision of Unosumai area. However, participants were mixed with both people who were affected by the tsunami and those who were not. So he felt huge gap between these two parties, and he started to establish new group only targeting those who had direct damage by tsunami. Firstly to create a member list, he kept walk around temporal houses to find appropriate people and gather information of their temporal address. He shows strong anger for this experience that the City Hall did not offer any residential information for him because of individual privacy issue.

He also established another group mainly targeting landowners. But this chance did not meet his expectation again. "As the leader of this group, I was planning to play a role of pipeline between local area Unosumai and municipality. Around November 2012, the city government proposed Land Adjustment Plan for future land use in Unosumai. The group supposed to set individual meeting with landowners to have a consensus against the plan from government.

However, from late November to December 2012, official meetings that were held by the City Hall with individual residents, took a role which we were planning to play. Discussions with landowners were done within unknown field apart from us." It is natural but his scope seems to be limited to a position of victim or landowner.

## **4.2 Summary of Interview Result and Identified Group**

By quoting phrases or facts from interview data, commonalities of Q1 to Q6 in each group will be described in 4.2.1 to 4.2.3.

### **4.2.1 Group1**

- Founder of Sanriku Hitotsunagi Nature School, Ms. M. K. (27)
- Owner of Local Hotel Horaikan, Ms. A. I. (56)
- Sub-leader of Nebama Neighborhood Association, Mr. Y. S. (57)
- Founder of NPO Ohakozaki Citizens Conference, Mr. R. K. (80)

**[Q1: Deciding factor to return to original village or restart their life and business]**

**To pursue a role as local leaders continuously from before the disaster.**

Ms. M. K. already had a promise with her parents to return Kamaishi after her university study in Hokkaido. As her hometown Katagishi was also damaged heavily, she returned with emergency supplies just the next day of the disaster. After continuing a lot of volunteer activities as a worker of the NPO, she started own business to provide long-term support by tourism and nature school business. Ms. A. I. keeps strong leadership and positive attitudes from soon after the disaster to open her local hotel as evacuation place. With her various activities to revitalize Nebama village, and Unosumai basin in Kamaishi, she naturally keeps taking action toward disaster recovery as well. Mr. Y. S. just got a position of vice-chairman of Nebama Neighborhood Association 2 months before the disaster. As he is younger than others in the village, it was normal for him to play a role as main coordinator among the residents in recovery discussion. As Mr. R. K. has been engaging in local revitalization for 20 years, it was normal for him to play a role for community building soon after the disaster especially in the evacuation place.

**[Q2: Preparedness to risks]**

**They have strong preparedness to take risks for keep living in coastal villages.**

Ms. M. K. already had promise with her parents to come back to Kamaishi anyway in the future. As a resident who grew up in the area, she made up her mind to offer sustainable support to the area especially when she started her own business of a nature school. Ms. A. I. of course

fears the tsunami, and sometimes had thought of giving up regeneration of her village. But thanks to others who rely on her, or her original competitive personality let her stay strong to keep living with the ocean. Even though Mr. Y. S. lost four family members by tsunami, he shared his honest expression, “Although I hate tsunami, I still love the ocean.” Mr. R. K. also lost her daughter but he found a position as elderly to contribute to the society and strongly showed his will that “I definitely won’t let our area as a ‘marginal village’. I really want to keep my eyes on ‘recovery’ of this area before I die.”

**[Q3: Attachment to local area]**

**Their attachment to local area in wider scale has been increasing by spending longer lifetime and also having experiences to go outside.**

Ms. M. K. used to be dreaming of living in metropolitan areas because she could not find any attraction in Kamaishi. But after leaving to Hokkaido for study in university, she started to gain attachment by finding attractive abundant nature in Kamaishi. Ms. A. I. went to high school in Mito (Ibaraki prefecture, Kanto area) to escape from succession of parents’ hotel business, but every summer sea wind let her remind Kamaishi and changed her mind to return to Kamaishi. This is how she noticed the increasing attachment to her hometown. Mr. Y. S. was also dreaming of urban life. But because he has been working in the top leading Shin-Nittetsu Iron Corporation based on Kamaishi, attachment to Kamaishi has been increasing due to work life there. Mr. R. K.

was also working in the iron company, with a lot of experiences to work with other companies in southern area of Japan, or to visit overseas. Every time he got out from Japan, he noticed that Japan is still wonderful, and this let him engage more in Kamaishi.

**[Q4: Meaning of this disaster]**

**They perceive this disaster as an opportunity to structurally revitalize whole village or wider area.**

Although Ms. M. K. once left Kamaishi City for studying in university, she already had dream to maintain a nature school in the future. For her, she could establish great network in this two years, with key local leaders related to green tourism that she was already planning to meet in the future. Ms. A. I. said that they should not wait planning or action from government. For her, this is the best and last timing to execute revitalization within local residents' power then let public sector to acknowledge. Mr. Y. S. regards this disaster as a period to regenerate their hometown and create new history of Nebama village. Although Mr. R. K. lost her daughter, he positively mentioned, "The disaster is rather good opportunity. We haven't been had enough deep discussion among residents. Now is the time to let them lively discuss future town building."

**[Q5: Awareness and action to local problems existed even before the disaster]**

**They have been positively taking action to solve original local challenges for long time.**

Ms. M. K. decided to go to a university in Hokkaido, out of Kamaishi, to study field activities

to open a nature school in the future. Her working experiences in an NPO are also as preparation to come back and tell attraction of Kamaishi to future generation. Ms. A. I. installed green tourism activities in late 1990s against strong protest from others. She was already good at involvement of key leaders, and succeeded to invite more than 1000 students per year to let them experiences fishery or farming activities. Mr. Y. S. got a position as sub leader in Nebama Village Association just two month before the disaster, but with great management skills obtained from working experiences in iron industry, he has been playing a key role to facilitate discussion and support the leader who is a straight fisherman. Mr. R. K., even twenty years ago, already noticed the weakness of Katagishi town; lack of town planning, creativity and appropriate human resources to lead the community against shrinking and aging issues. Thus, he has been playing that role by himself from a position of a committee member in Social Education Association in Kamaishi.

**[Q6: Future vision and action toward disaster recovery]**

**They have unique long-term vision toward recovery in wider scale, with involvement of others and (managing organization) ahead for government intervention.**

Ms. M. K. started her own business with long term plan to connect people from different location or generation; inviting group of students or employees from outside to join disaster-learning-tourism, and offering nature school to kids in Kamaishi. Ms. A. I. keeps taking actions



and revising direction of her hotel business with wider revitalization plans for Unosumai basin. She does not hesitate to declare her ideas and sometimes gets criticized by banks or consultants but at the same time involve so many supporters and media from outside. With management and documentation skills, Mr. Y. S. leads Nebama village and has done two big things; opposition to high sea wall plan proposed by government, and proposition of installing collective housing in a new residential area. Mr. R. K. is also active ahead of government intervention and established new NPO to bind 8 villages up as peninsula-scale and promote residents discussion. He also has own vision toward revitalization of whole Unosumai basin with clear revitalization activity plans.

#### **4.2.2 Group2**

- Worker at Local Hotel Horaikan, Mr. D. Y (23)
- Owner of Bar Konkon, Mr. E. T (26)
- Owner of T Store, Mr. T. S. (38)
- Co-owner of Hair Salon H, Ms. M. H. (45)
- Owner of Taiyo Taxi, Mr. S. I. (56)
- Owner of Bakery Anderson, Mr. T. O. (60)
- Owner of Sasagen Auto Cycle, Mr. S. S. (63)

**[Q1: Deciding factor to return to original village or restart their life and business]**

**To accept invitation or meet expectation from others through their business network**

Mr. D. Y was invited by the owner (okami) of Local Hotel Horaikan. Mr. E. T “just wanted to put lights on the dark vacant street for people’s relief and a place to gather” although he was strongly opposed by family and friends. Mr. T. S. couldn’t tell customers about quitting his business, rather he happened to tell that he would close business for a while. Moreover, he was requested by representative of merchants association to join temporal shop facilities. Although he once declined, he felt frustrated by not contributing to Unosumai as a merchant. Ms. M. H. was asked by colleague to work as voluntary barber in evacuation places. She thought it’s better to keep her closer to Kamaishi and customers to get information. Mr. S. I. happened to accept a short-term driver job offer. Although he also declined in the beginning, it seemed that he couldn’t acknowledge himself not meeting business demand. For Mr. T. O., it was normal to continue his bakery business because of longer relationship with customers in Kamaishi City and long history of being helped by others. Mr. S. S. was asked to restart business by a fishery association and an engine maker thanks to contract as a reliable distributor. His business was protected to keep careful engine maintenance for fishery.

**[Q2: Preparedness to risks]**

**They have short-term preparedness to take risks in restarting business, or they have**

**acceptable family environment.**

Because they are younger or have less family constraints, they can mainly think about their own achievements or challenges. Thus they have short-term preparedness to take risks of restarting job or business in this devastated area.

Mr. D. Y, Mr. E. T and Mr. T. S. all mentioned that they are still young and be able to fail, retry again. As for Mr. T. S., he lost parents by tsunami and rather he started to think freely about his future because he has been struggling with pressure and constraints from family as a successor of their business. Ms. M. H. is now living in a temporal house with five family members. She wants to rebuild their barbershop at this moment because her parents is now 70s year old, and will be difficult to take risks when they get older. Mr. T. O. shows willingness to endure in temporal house and shop facility at least for some years as long as they can borrow them. In Mr. S. I. and Mr. S. S. case, they both have children who have already grown up, thus they don't need to care about earning money for children's education etc.

**[Q3: Attachment to local area]**

**They showed middle level attachment to local area with hesitation to return because of shrinking society and unclear recovery vision.**

Even though they have attachment to local area, they still have ambivalent idea for long-term stay in this devastated area, showing less potential to live or to continue current work forever in

the original villages. Mr. D. Y finds himself escaping from Kamaishi City although he likes the city itself. Mr. E. T showed appreciation to kind local people around him moving to Unosumai from another city Miyako. However, he is thinking of moving back to his hometown Miyako for future ownership of restaurant. Mr. T. S. really wants to protect local people and their life in Unosumai but still wavering whether to keep living in Unosumai or not. This is because he cares about future generation in Unosumai repeating the same disaster and town rebuilding in the same dangerous place. Ms. M. H. did not think about moving to another cities because of closer relationships with original customers embedded in the local communities. She shows relatively high willingness to return to original place in center of Unosumai, but cares that there are no house even if they rebuild the shop. Mr. S. I. said that he has little attachment to Unosumai but he already has another office in central Kamaishi because of more customers there. Mr. T. O. has strong appreciation to anybody who has been helped him through his bakery business for 30 years, this seems relate to his attachment and willingness to contribute to local society. But he still fears the scenes of horrible tsunami and also shows motivation to move out to another city. Mr. S. S. also shows better impression to local area such as kind and close communication among residents, or frequent and live local festivals. But due to his hard business related to fishery with shrinking merchant issues, he is planning to shut it down at his generation.

**[Q4: Meaning of this disaster]**

**They perceive this disaster just as an adaptation process or short-term commitment in business.**

They all utilize support from government or labor associations for money and facilities. They also mention short-term years to commit or restart business in Unosumai district.

Mr. D. Y. was asked by an owner of the local hotel Horaikan, but does not sure whether he works more than three or five years. But at least, gaining invaluable human network and diverse management skills through his work is a motivation to commit to Kamaishi temporally. Mr. E. T. is not originally from Kamaishi, but currently just utilizes the vacant land of his fiancé's family to contribute to devastated Unosumai area for two or three years until town reconstruction. Mr. T. S. decided to borrow a food van and a space in temporal shop facilities to restart their grocery store business in minimum scale, but with limitation of short-term commitment for two years because they are not sure about future potential of Unosumai to keep living. Ms. M. H. accepts current situation smoothly thanks to their original customers distribution that is closer to current temporal shop, and facilities support from Barbers Association and government. Mr. S. I. rebuilt offices at original location in center of Unosumai by utilizing a subsidy, but he clearly stated that he can move to anywhere with a taxi and a phone. He already has new land in center of Kamaishi due to more customers in the area than in Unosumai so that he can move smoothly depending on

where he can get more profit. Mr. T. O. clearly stated that current situation is a timing to minimize and prepare for rebuilding bakery for next stage. He stressed on the importance to adjust to changing situation of devastated area. Mr. S. S. also utilizes a slot in temporal shops and subsidy to reinstall facilities, but already shows that he will not succeed such an old business to his children. He will only continue five to ten years by himself and shut down.

**[Q5: Awareness and action to local problems existing even before the disaster]**

**Through their business experiences, they were already aware of original local challenges and had practical opinions, but no concrete action compared to Group1.**

Basically all the interviewees in Group2 mentioned shrinking society. Mr. D. Y critically pointed out that Kamaishi City has already been shrinking, and then it'll be worse from now on. He showed difficulty of preventing population decline; "Increasing population means that the city will be responsible for whole life of people coming in". Mr. E. T., now living in a temporal house, noticed some problems that other elderly people are facing during inconvenient life there. Because he already noticed quiet and calm personalities of people in Unosumai, and the difficulty to connect residents' needs with government, he himself had proposed to city governments on behalf of residents, but felt ineffective by that government seems not take action immediately. The other four interviewees directly sensed "shrinking society" through their business experiences. Mr. T. S. said, "Even before the disaster, people were declining in Unosumai. We

had a merchants association but not a shopping avenue. Unosumai was a good residential area but not for commercial area". Mr. S. I. compared customer segments. He used to have so many fishermen or iron industry workers who drank at night, or more students and younger generation as customers. But recent main segments are elderly or people go to hospital. Mr. S. S. pointed out scattered merchants in Unosumai, and lack of successors in each family-owned shop due to aging society. Mr. T. O. pointed out shrinking society issues and outdated way of merchants. To survive against huge franchised supermarkets, at least he himself started unique sales way with food van, from long time ago. Ms. M. H. raised a difficulty of local merchants' sustainability because of huge supermarket emerging in central Kamaishi or next Ohtsuchi town. Actually she herself is trying hard to build consensus among younger merchants, but almost gives up to tackle with stubborn landowners who reject new ideas for town rebuilding.

**[Q6: Future vision and action toward disaster recovery]**

**They see difficulty to take action proactively in spite of critical and skeptical views against stereotypes in recovery discussion.**

From business point of view, they don't want to (cannot) take action proactively even though they already have critical and skeptical views against stereotypes of recovery discussion that may not applicable to future generation. Mr. M. H. agrees on combining small merchants up into a new shopping facility in the new town of Unosumai, but having stress to get stubborn landowners

into consensus building. To get enough information about recover plan, she at least tries hard to promote discussion about Land Adjustment Plan involving her customers and other closer merchants. Mr. T. O. also raised the complicated discussion bodies in Unosumai, having different group to discuss recovery plan. He let his son to join these discussions and he himself wants not to involve too much.

Mr. T. S., Mr. S.I., Mr. S. S. raised problems of Group Enterprise Subsidy. They all belong to the same group “The Group for Regeneration of Unosumai” and suffered from the bothering application process or voluntary group activities as a whole group with 31 diverse enterprises. They show strong opposition to the subsidy system preventing recovery of their main businesses.

Mr. D. Y., Mr. T. S., Mr. S. S. showed skeptical vision against stereotypes of “disaster recovery”. First, Mr. Yamazaki raised a fundamental question; “What do we mean by ‘disaster recovery’?” He pointed that if population wouldn’t return, it would be ok even to let debris remain on the ground because there would be no meaning of ‘recovery’ of the town as hardware. By noticing the fact that Unosumai area has repeatedly experienced tsunami in the past, Mr. T. S. also shared fundamental realization “Is that really the best way to create town there in Unosumai? [...] We should never create town here, we happened to live here where we shouldn’t live”. Mr. S. S. raised the scattered merchants issue and proposed not to repeat the same way of town building from the commercial point of view. Three of them notice the importance of not repeating the



same mistake in the recovery process for future generation.

As a whole group, adaptation to post-disaster situation seems to be already too much burden for them, thus they want to concentrate on maintaining business. Mr. D. Y is not an owner but as an employee of a 'company' Horaikan, he decided to concentrate on making profit. Because Mr. E. T is not originated in Unosumai, and probably going back to his hometown Miyako in the near future, he seemed to try not to intervene too much in original residents' discussion for recovery. But among this Group2, Ms. M. H. has relatively higher motivation to involve others for recovery, as if closer to Group1.

#### **4.2.3 Group3**

- Owner of H Tatami Store, Mr. S. H. (53)
- Previous owner of milk shop, Ms. M. Y. (50s)
- Leader of Eastern Fishery Association Women Department, Ms. H. M (66)
- Owner of Local Hotel Maekawa, Ms. R. M. (60)
- Owner of K Flower Shop, Ms. K. (65)
- Worker at Eastern Fishery Association Refrigerator, Ms. K. U. (71)
- Committee of Unosumai Property District, Mr. T. S. (74)
- Chairperson of Unosumai Property District, Mr. Sh. I. (77)

**[Q1: Deciding factor to return to original village or restart their life and business]**

**They didn't leave original villages so as to stay closer with family, neighbors and atmosphere that they get use to.**

They naturally show strong willingness to return to original villages because of their stronger relationship with family, neighborhoods, or any role / cultural procedure should be done in hometown.

Mr. S. H.'s case is actually closer to Group2 but his customers has been visited him when he was in evacuation place or temporal house. And then the trigger was a strong advice from his previous boss, "You have a talent of Tatami professional. Restart your business!" About Ms. M. Y., she has been continuing her milk business for most of her lifetime. So it is unnatural for her to keep staying inside of house without any work, and then she started to work as a temporal helper of local restaurant. Ms. H. M. once thought that she never wants to live in such a horrible and dangerous place. But she couldn't easily abandon her hometown where she grew up. Ms. R. M. owned a local hotel that was totally washed away by tsunami. Even after she decided to rebuild it, she still has been kept sad feeling of losing her daughter by this disaster. But her husband's fishery restart and her old friends' supportive comments made her help recovered mentally. Ms. K. once thought of shutting down her flower business after the disaster but she reminded her husband (passed away due to tsunami)'s word saying, "If you keep working anyway, you'll never

lose your job” then she restarted it. Ms. K. U. evacuated to Yokohama where her children were living but didn’t think of keep staying there for a long because she anyway had to take care of funeral and Buddhist memorial ceremonies for her husband who passed away by tsunami. Also, she only knows her children’s family in Yokohama but everyone knows each other in her hometown that makes her feel relaxed. Mr. T. S. continued his position as a committee of Unsumai Property District. He already had motivation to leave his name on history line because he officially won the election to be the committee. Mr. Sh. I.’s case is a bit closer to Group1 but he had already won election for a chairperson of Unosumai Property District, so he decided to pursue his position until the end of his term.

**[Q2: Preparedness to risks]**

**They put higher priority on safety in spite of willingness to return to coastal villages.**

Mr. S. H. once opposed by his wife about restarting business by his own. But thanks to insurance coverage for Tatami business facilities, he decided to restart by himself and it was indeed sustainable than people who have employed by others. Ms. M. Y. and her husband used to love fishing but still they cannot bring themselves to seashore. Ms. H. M. wants to return her village Hakozaki but feels scary and cannot go there until roads are safely rebuilt at least. Ms. R. M. thought that restarting local hotel would be difficult. She already started construction to build new hotel in the middle of a small mountain, where they believe safety. Ms. K. does not fear too

much to return to devastated area. Rather, she prefers to the original place to both live and run business because it will be easier and more convenient to live. Closer opinion to Group2, especially after the disaster, she wants to meet customers' needs of flower for those visit graves of people lost their lives at the disaster. Ms. K. U. still loved to live closer to sea but still showed fear. Mr. T. S. left a very impressive comment just after the disaster "Even though the sea was so horrible, I still love to watch it. That's my hometown." Although he shows such a strong attachment to a coastal village Nebama, he keeps telling residents and tourists about the importance of safety and quick evacuation to upper hills. Mr. Sh. I. answered that "It'll be a lie if I say I don't have any fear. But we won't have such a huge disaster any more and also I'd like to be careful not have such a damage like this time."

**[Q3: Attachment to local area]**

**They have increasing attachment to local area in personal scale by spending longer lifetime.**

It is unrealistic for them to leave away from the area where they spent longer life and feel increasing attachment to.

Mr. S. H. showed attachment to a life closer to nature that is also a reason for him to keep living in the area. Ms. M. Y. likes to live where she can feel sea wind because she already got used to such an atmosphere. Ms. H. M. mentioned that Hakozaki is her accustomed village where

she spent 60 years and knew everyone each other. Ms. R. M. mentioned similar things to Group 1 but “I could realize the attraction of Nebama from outside point of view when I was younger and working in Tokyo.” Ms. K. said that she only has memories there in Unosumai. In the beginning she never wanted to see the area but after passing one year, she started to realize that “after all Unosumai may be the place to return”. Ms. K. U. is not originally from Hakozaki Village, sometimes she faces jealousy from other residents. But still, she appreciates neighbors to mentally take care of her especially after the disaster when she started to live alone. Mr. T. S. again expressed a interesting phrases, “I love Nebama village from the time I was born”. Mr. Sh. I. mentioned “It’s getting difficult for me to establish new friendship as I get older, with less dream and hope”.

**[Q4: Meaning of this disaster]**

**They perceive this disaster as an opportunity to notice importance of neighbors, family or friends.**

They could restart their own life or work thanks to mutual support with neighbors or friends.

By this disaster, Mr. S. H. appreciates precious boss and customers to encourage him because he cannot quite tatami business that he has been continuing for 30 years beyond so many disturbances. Ms. M. Y. is a bit special case among interviewees, but this disaster seems to be timing for her to shut down her old milk business. Interestingly, after that she spends so much

time at home and noticed that she want to work anyway, as her natural personality. Ms. H. M. really appreciates her relatives and friends helped her after the disaster. She realized the importance of bond between people to people. Ms. R. M could mentally recovered from losing daughter by disaster, thanks to supportive relationship with other ladies living in mountainous area who weren't directly affected. Ms. K. said that Unohamasu Temporal Shop Street where her flower shop locates has more events and stronger teamwork. These merchants have been supporting each other. For Ms. K. U., who lost her husband by tsunami, joining some outside local cooking events helps her shift emotion away from sadness. Mr. T. S. evacuated to the local hotel Horaikan first, and then had to move to inland. During the period, his neighbors from the same Nebama Village were closer and they support each other. Mr. Sh. I. stated that now is the time to build a bond among local residents.

**[Q5: Awareness and action to local problems existed even before the disaster]**

**They aware of original local challenges but have no idea for exact solution.**

Mr. S. H. pointed out the dangerous roads in Unosumai, which are narrow and with steep curve. Ms. M. Y. explained, "Katagishi used to have so many blank paddy fields. Now is the time of generation transition. We need new places to work and live for younger generation." Ms. H. M. raised issues of hard and cheap labor in fishery based on her own experiences. Ms. R. M. didn't really mention about local challenges but just said "Nebama is a nice village". Ms. K. pointed a

problem of scattered merchants in Unosumai. Ms. K. U. mentioned that Hakozaiki is behind compared to other villages. Also, she has been suffered from some jealousy relationships with neighbors. Mr. T. S. raised the importance of tourists staying in local area rather just passing. He used to engage in green tourism activities, but he added more important factors; fishery products, human resources and enough space of facility to accept tourists. Mr. Sh. I. pointed “People in Unosumai didn’t have bond recently. We have less involvement of younger people or children into local festivals where they can learn about mind of gratitude, admire to others”.

**[Q6: Future vision and action toward disaster recovery]**

**They are waiting and expecting for speedy action to reconstruct infrastructure.**

**Moreover, they optimistically think that other residents will also come back as well.**

Mr. S. H. shows his vision of own life and business by staying in temporal facilities because of free fare. If he can stay longer than contract of 2 to 3 years, he would love to pay for fare because of good location where people gather. Ms. M. Y. expects land-elevation construction to finish so that they can rebuild house in upper place. Ms. H. M. said, “I can have hope to return soon if the roads reconstruction start at least.” Ms. R. M. optimistically said, “Don’t need to worry because our Nebama village has neighborhood association with frequent meeting. Our heart is the one even though we live in different temporal house now”. Ms. K. said, “Anyway everyone will return. Merchants also say ‘Let’s get together’. I heard that a school would be

rebuilt in Unosumai. If government take action speedy for that, population will gradually return I guess”. Ms. K. U. who lives in the fishery village said, “After the recovery of fishery, liveliness of village will also return”. Mr. T. S. expressed his own willingness of retrying green tourism activities, and pursuing fishery and a committee of Unosumai Property District. Mr. Sh. I. behaves relatively differently from others in Group3. He has been trying to build a consensus about land use plan among residents but he tries to bind up people who were affected or landowners, which seem to be in his scope.

Finally, all the commonalities for Q1 ~ Q6 in each group were summarized in a table below.

**Table 6 Characteristics of Q1 to Q6 in each group**

|   | Group1<br>(4 interviewees)  | Group2<br>(7 interviewees)  | Group3<br>(8 interviewees)  |
|---|---|---|---|
| Q1: Trigger or conclusive factor to return to original village or restart their life and business | To pursue role as local leaders continuously from before the disaster               | To meet expectations from customers or people around business network                 | To stay closer with family, neighbors and atmosphere that they get use to       |
| Q2: Preparedness to take risks  | Strong preparedness to live in coastal villages to live along with sea              | Short-term commitment to restart business / acceptable family environment             | Higher priority on safety in spite of willingness to return to coastal villages |
| Q3: Attachment to local area  | Increasing attachment in wider scale by spending longer lifetime to revitalize, and | Middle level attachment with hesitation to return because of local issues and unclear | Increasing attachment in personal scale by spending longer lifetime             |



|   | outside experiences  | recovery vision  |  |
|---|--|--|--|
| Q4: Meaning of this disaster  | As an opportunity to structurally revitalize whole village or wider area               | Just as an adaptation process or short-term commitment in business course  | As an opportunity to notice importance of neighbors and friends  |
| Q5: Awareness and action to local issues existed even before the disaster | Positively taking action to solve original local issues for long time                  | Awareness of local issues with practical opinions, but less prominent action   | Being less aware of original local challenges  |
| Q6: Future vision and action toward disaster recovery                     | Unique and long-term vision in wider scale, with involvement of others managing skills | Seeing difficulty to take action proactively in spite of critical and skeptical views against stereotypes in recovery discussion | Waiting and expecting for government's speedy action to reconstruct infrastructure, being optimistic that others would also return |

## 5 DISCUSSION

### 5.1 Analysis on Relationship of Q1 ~ Q6

Based on each answer to Q1 ~ Q6 showed in the table, relationships between each factor Q1 to Q6 will be shown in this section. First of all, Q1 ~ Q6 will be divided into 3 steps.

Q3, Q5: original factor

Q2, Q4: driving factor in special condition after the disaster

Q1, Q6: action in recovery process

And arrows will connect any pair of Q factors that seem to have influence.

## Group1

Increasing attachment (Q3) affect positive attitude (Q5) when they take action to solve original local challenges. Increasing attachment (Q3) would also influence strong preparedness (Q2) then this leads to the fact they continuously pursue roles as local leaders (Q1) as they've already been taking action as local leaders (Q5). Their positive attitudes to tackle with local issues (Q5) help them regard the disaster as an opportunity to revitalize whole village or wider area (Q4). With Q5, Q4 and Q1 would induce unique long-term vision toward recovery (Q6).

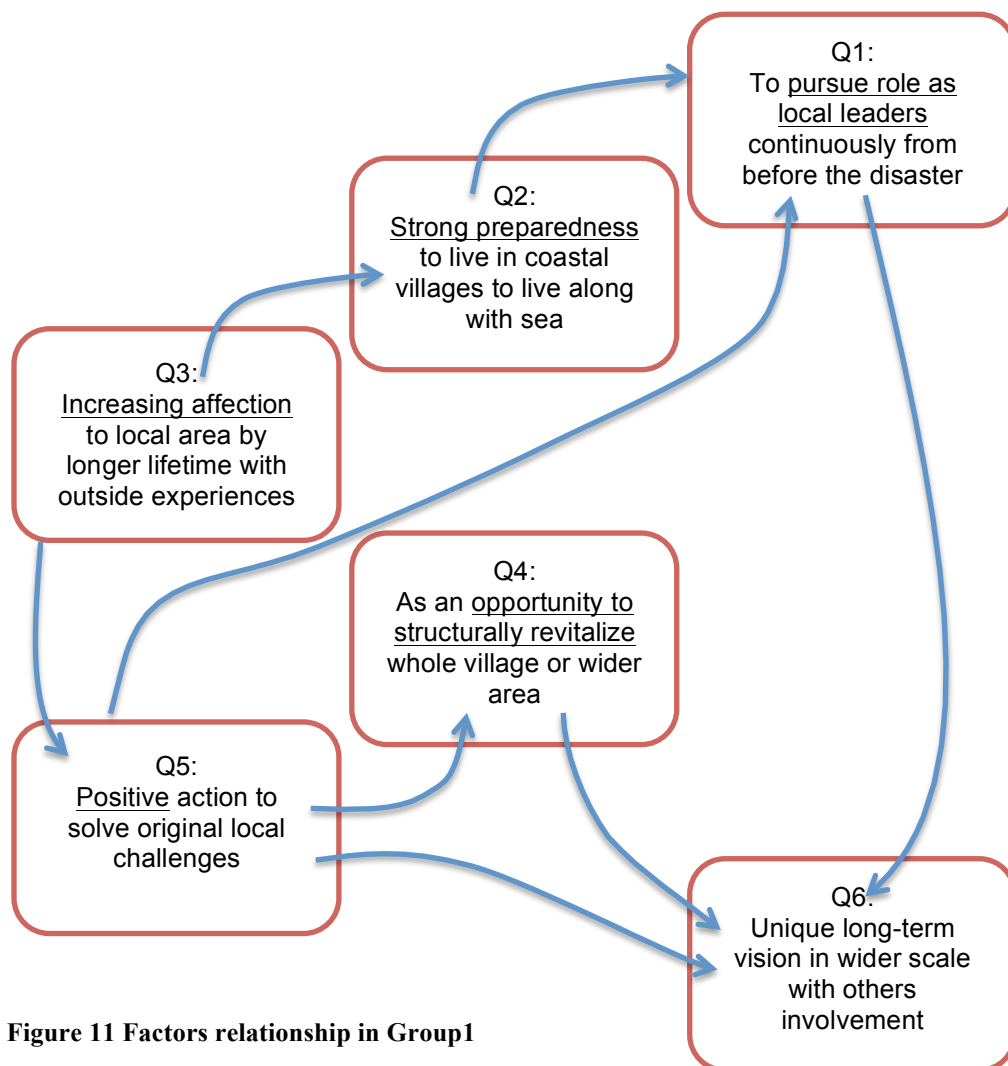


Figure 11 Factors relationship in Group1

## Group2

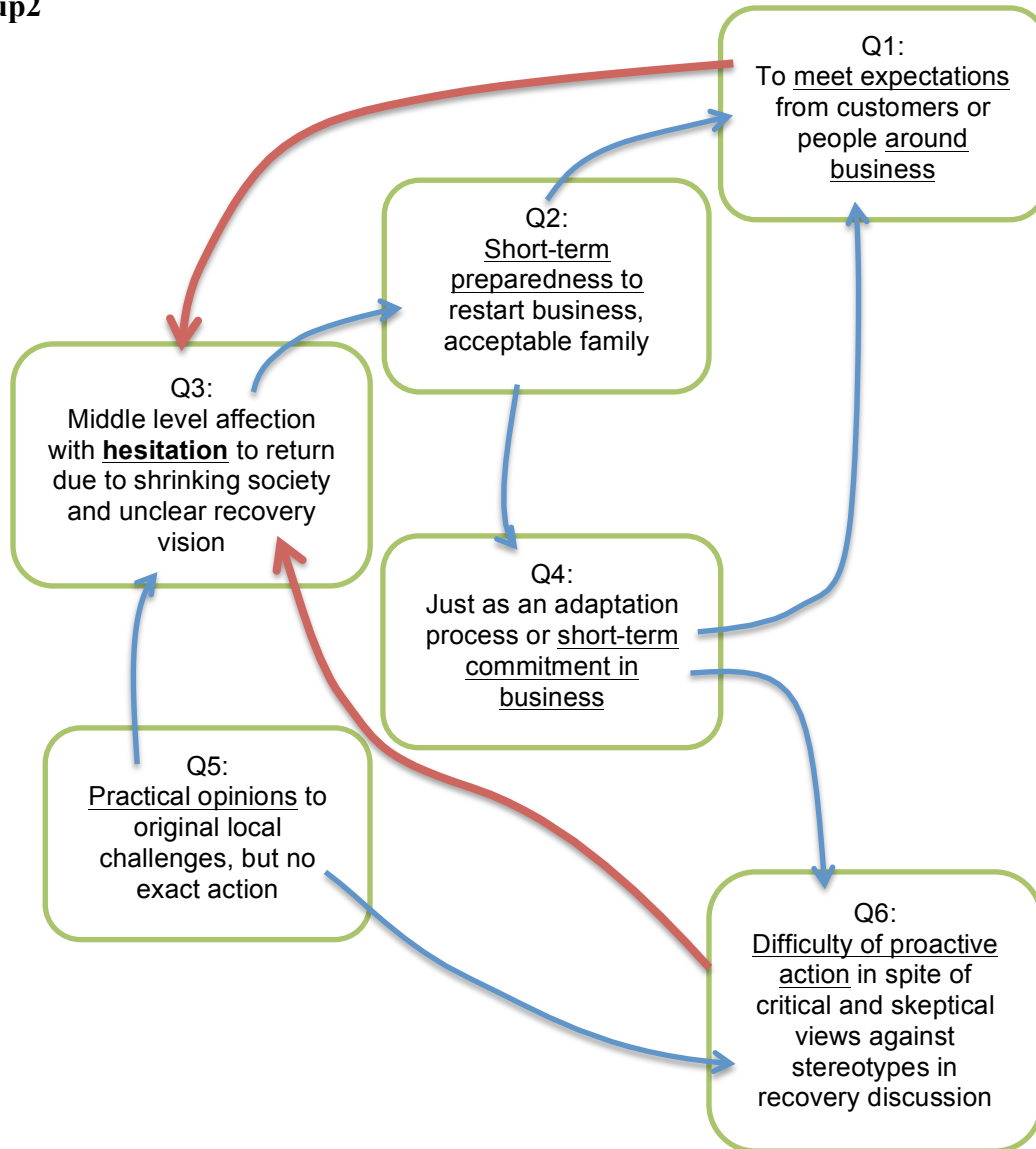


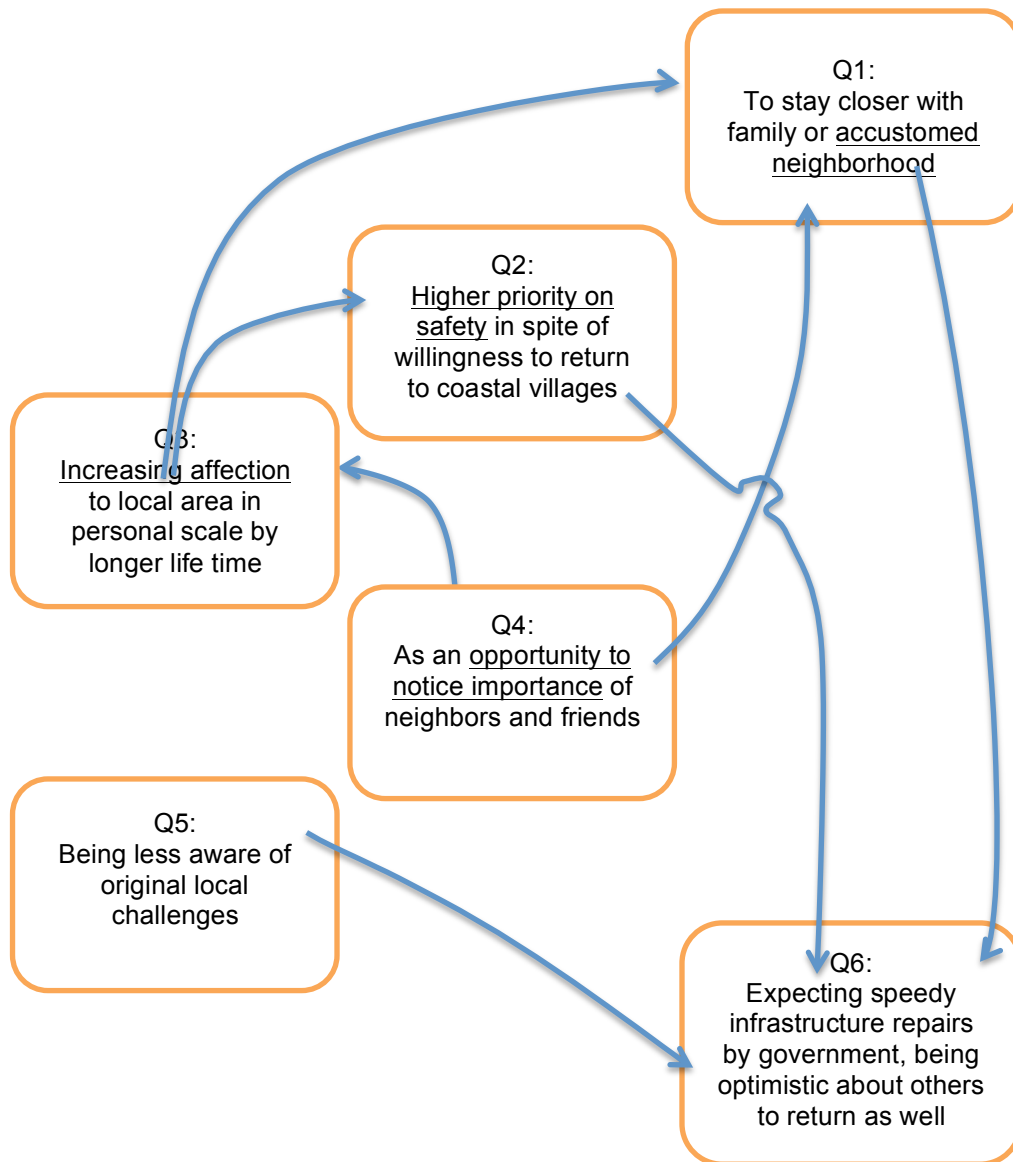
Figure 12 Factors relationship in Group2

Because they already aware of local challenges (Q5), they practically think that situation have got worse due to the disaster. So they have critical and skeptical views against stereotypes or mainstream in recovery discussion (Q6). Thus, even though they might have relatively stronger attachment to local area before the disaster, that factor have changed by Q5 and Q6, and then

turned into “middle level attachment with some hesitation” to keep living in the devastated area (Q3). Q3 would affect Q2 in the way that they have at least “short-term” preparedness in risks. So, they regard this disaster just as an adaptation process or short-term commitment in business (Q4). Q3 and Q4 would be the drivers for restarting life and work by meeting expectation from customers or people around business (Q1). But they only have such a temporal / sudden motivation for restarting business, they cannot have long-term vision to keep living here then the hesitation (Q3) would increase more and more. Q4 also influences their difficulty to take proactive action in recovery (Q6) because their main interest is in maintaining business (Q4).

### **Group3**

Increasing attachment (Q3) would cause higher priority on safety (Q2) despite they are willing to return to original coastal area. The disaster is regarded as an opportunity to notice importance of neighbors and friends (Q4). Because of this, attachment to local area (Q3) may be strengthened, and leads to deciding factor of them to stay closer with family, neighborhood and atmosphere that they get use to (Q1). Because they are originally less aware of local challenges (Q5), and also putting higher priority on safety for recovery (Q2), eventually they tend to wait and expect government’s speedy action for infrastructure reconstruction (Q6). As they chose to return to original villages due to accustomed environment (Q1), they seem optimistically expect other residents to return as well (Q6).



**Figure 13 Factors relationship in Group3**

### **Comparison of each group**

As analyzed with diagrams above, each factor Q1 ~ Q6 has causal and effect relationship each other. In Group1 and Group3, they basically have simple structure that original factors (Q3, Q5) would anyway influence action in recovery process (Q1, Q6) straightly while Croup2 has feedback arrows. Reminding the original problem statement in the beginning;

**1) Whether residents are willing to return to original villages or not, in short,  
preventing population outflow**

**2) How can original problems existing from before the disaster be solved**

The important point is that not only 1) but also 2) should be achieved in disaster recovery.

In short, Group1 originally had highly increasing attachment to local area and also took leadership against local challenges. Even after the disaster, those original factors remained and turned into driving factors as an optimistic (positive) way, then eventually they continuously pursuit leadership with proactive and wider-scale action to disaster recovery. So, Group1 meets both 1) and 2).

However, Group2 has such a complex relationships between each factor with feedback arrows such as connecting from Q6 to Q3, and Q1 to Q3. This can be interpreted that they are now in a critical situation with huge uncertainty but potential at the same time for remaining in devastated area for much longer lifetime. By seeing Q5 and Q6, their attachment might be reduced and hesitation emerged (That's why they have so much hesitation and uncertainty towards future plan). As long as interviews were conducted after the disaster, at the moment when interviewees remind back and tell stories about the past, any original factor has possibility to be affected (filtered) by other factors or emotions in post-disaster situation. Thus, because Group2 clearly aware of original local challenges as well as unclear future vision toward disaster recovery, their

attachment and willingness to remain might have reduced then let them take inactive (adaptive) attitude toward disaster recovery. So, in the long run, they may not meet neither 1) and 2).

As for Group3, originally they also have stronger attachment to local area but less awareness to local challenges and their interest scope is limited to individual level (about themselves or people around them) as seen in driving factors. Eventually, in spite of their stronger attachment / willingness of return to local area, they take passive attitude to disaster recovery. This means that Group3 just meet 1) but does not meet essential 2).

Towards revitalization of local villages beyond disaster, how can each group overcome challenges to meet 2) on the basis of 1)? Challenges in each group will be deeply discussed in the next section 5.2 followed by potential solutions in section 5.3.

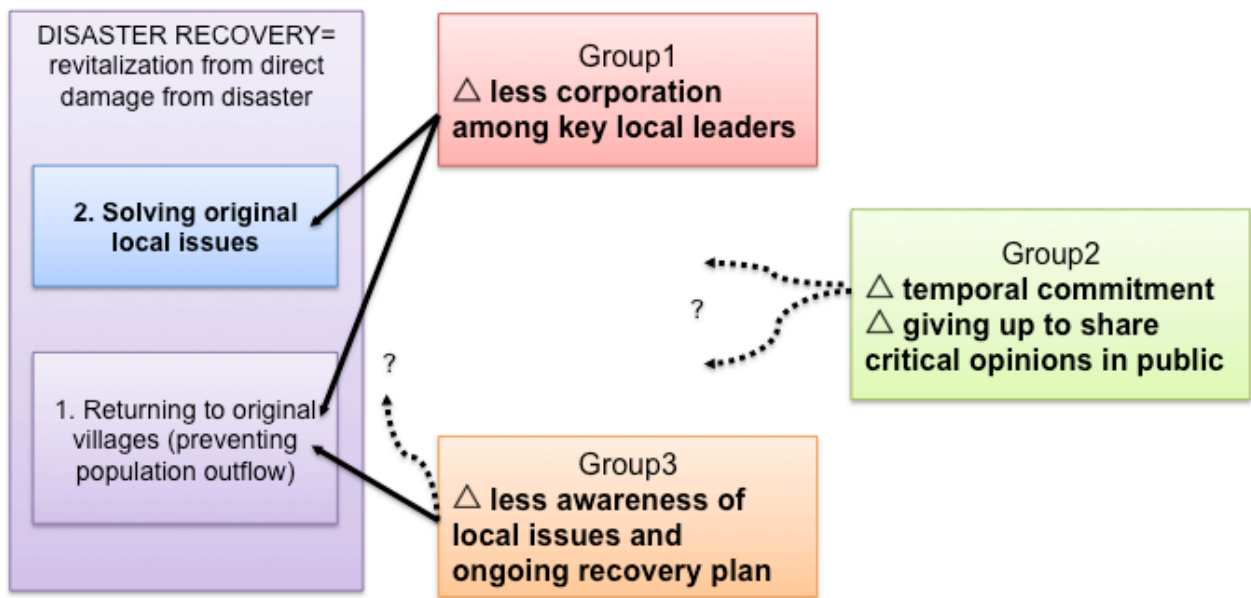


Figure 14 Challenges in each group

## 5.2 Challenges

From the interview results, challenges of each group will be picked up in this section.

### **Challenges of Group1**

**Each local leader is independent from each other but currently developing whole structure and role division among diversified recovery discussion bodies.**

### **Challenges of Group2**

- 1. They have less intentions to reflect their critical but minor opinions into recovery discussion.**
- 2. They have less intentions of long-term business from current short-term adaptation.**

### **Challenges of Group3**

**Difficulty to correctly understand updated discussion for recovery and land adjustment plan**

### **Challenges of Group1**

**Each local leader is independent from each other but currently developing whole structure and role division among diversified recovery discussion bodies.**

As described before, each member of Group1 established invaluable network through his or her engagement before and after the disaster. However, because each organization emerged on different timing with different initiative, it seems that each leaders have been acting individually so far. Even though they know each other, they don't seem to have formal collaboration especially in discussion for recovery. They surely have similar vision such as redeveloping green



tourism toward recovery and local revitalization, and actually their activity or business contents are partially overlapping each other. It seems that just target and the way of approach is different.

Ms. M. K., as a founder of a private organization “Sanriku Hitotsunagi Nater School”, she has been strengthening networks with local children and students, other local leaders tour guides, and with tour participants from outside. Ms. M. H. has joined a general incorporated association “Unosumai Town Building Center”, having a network with other merchant members in the association who are around 30s to 50s. Also in Unohamanasu temporal shop street, she plays an important role of promoting discussion and summarizing consensus among merchants. Mr. Y. S., as a vice-chairman of Nabama town association, facilitates discussion among residents and propose consensus to city government against some parts of recovery plan utilizing his management skills and experiences he gained while he works for an iron industry company. Mr. R. K. has been trying to establish wider network combining 8 coastal villages in Hakozaki peninsula, as an NPO called “Citizen’s Conference within Kamaishi Eastern Fisheries Cooperative”. He also got a position of board member of new integral consociation “Umiyama Consociation“, involving mountainous village Hashino (with Mr. N. S., a reliable local leader who is also green tourism guide) for recovery and revitalization of whole Unosumai basin. Ms. A. I. also has wider scale recovery vision for whole Unosumai basin. From 15 years ago, she has been introducing and engaging many projects for local revitalization far beyond main hotel

business as Horaikan. After the disaster, she has been taking many opportunities to expose herself on various media to tell the reality of Kamaishi and Nabama village to the Japanese society and the world. As Mr. R. K. describes, she plays a very important role as advertisement, as she indeed has a talent of telling vision lively and vast networks with other local leaders, experts and media.

Indeed, just recently (end of 2012), there seemed to emerge a discussion on the new consociation to in the whole Unosumai basin. Such a movement binding scattered organization for disaster recovery should be definitely important from now on. It is necessary to systemize each discussion bodies under well-controlled overall structure. Each local leader should understand which organization is moving toward which direction in activity scale, targeting what kind of people. Then as a whole unite structure, each leader with an organization can divide roles, and cover each other. Similar discussions have been done by different layer of residents without any integration. In this light, Mr. R. K. is actually now taking leadership for reorganizing whole structure. Such a person with holistic views and high level of trust from residents will surely play a very important role.

With the collaboration and dole division among Group1 members, it'll be much easier to get a wider consensus in whole Unosumai basin, towards disaster recovery and local revitalization. And for overall control, I would also like to expect city governments' neutral intervention. This is because smoother discussion and understandings of residents' needs will surely lead to faster

decision making of in land adjustment plan and the beginning of real construction works on the government side.

### **Challenges of Group2**

#### **1. They have less intentions to reflect their critical but minor opinions into recovery discussion.**

Currently, interviewees in Group2 seem relatively giving up to promote their own critical opinions into mainstream of recovery discussion. This is because they hardly find younger generation around them, or someone with similar critical vision. They have preparedness to take risk in the scope of their business but just because they area adapting to current post-disaster situation for a short-term. Thus, they do not have intention to take risk for whole local area recovery for a long-term.

On the other hand, however, at least they have motivations to meet expectations and contribute to someone who rely on them, as they indeed restarted their business in that way (Q1). Also, they have a certain acceptable family environment to take risks for a short-term business restart. At this moment, it doesn't mean that they have no interest in disaster recovery of local revitalization. Rather, they have actually had intentions to reflect their practical and critical opinions into real public discussion. But by seeing the realities — parallel discussion with

egoistic landowners, slow speed action taking of government, irrelevant voluntary activities in group subsidy system —, they eventually decided to concentrate on their own businesses.

It is really wasting of human resources to make them give up in front of such huge barriers. It is necessary for them to meet and collaborate with some similar people as many as possible.

**2. They have less intentions of long-term business from current short-term adaptation.**

The current situation for Group 2 is they are adapting to business in devastated area by utilizing temporal facilities (houses, shops and offices) or subsidies. Or some merchants fortunately succeeded in growing back shrunk local business thanks to special demand in post-disaster situation (recovery of houses or fishery). However, within two or three years, it is said that rental period of temporal houses and shops will finish. Also, special demands will anyway calm down. Within three to five years, big scale reconstruction (ground leveling up, land adjustment etc.) will start and remained shops (such as Taiyo Taxi and Bar Konkon) will have to move anyway. The important thing is how can they survive for long-term after those huge changes. Rather, do they have any intention to shift their business mode from short-term adaptation?

For example, as Mr. D. Y. already pointed out, how can Local Hotel Horaikan gather customers after the decline of volunteers or disaster study tour customers? After Mr. E. T. has to leave for land adjustment construction, doesn't he have any intention to keep his bar business in

Unosumai? Can Mr. T. S. really find potential to safely keep living in Unosumai until he moves out from a temporal house and a shop? Does Mr. S. I. have any motivation to increase taxi users in Unosumai even if he has to move offices out due to roads reconstruction? How is Mr. S. S. going to keep business for 5 to 10 years (this time span is according to his idea) after finishing special demand period?

As long as they have no intention to remain in the area from business point of view, it is obvious that they do not join recovery discussion proactively even though they find some allies with similar opinions.

### **Challenges of Gourp3**

#### **Difficulty to correctly understand updated discussion and plans for recovery**

Interviewees in Group3 basically expect governments for faster reconstruction of roads and infrastructure as they prioritize safety for returning to original villages. Also, they optimistically expect other population to return as well. However, implementation of land adjustment plan may take 3 to 5 years till completion. During that period, there might occur population outflow, as Group2 already show uncertainty of remaining in devastated area for a long-term.

Moreover, there might be some misunderstandings of government's recovery plan. For instance, Ms. K. U. told ambiguity of land adjustment plan maps distributed by Kamaishi City

Hall. In her case, she could not clearly point the location of her original house. In such a condition, however, she had to fill in forms of survey asking whether residents are willing to rebuild houses by their own or to rental disaster restoration housing. There might be many other elderly residents who have difficulties to understand or even keep up with complicated recovery plans and discussions.

### **5.3 Future Visions**

Based on challenges, two main future visions will be discussed in this section.

#### **Group1 and Group2:**

**Involvement of Group2 (mainly store owners) into town rebuilding discussion**

#### **Group2 and Group3:**

**Strengthening 1) the network of stores and customers, and 2) keeping the new community of stores from temporal shop street into new town building, with 3) well-examined customer needs.**

As discussed in section 5.1, just having Group1 and Group3 is not enough to achieve ultimate goal for sustainable disaster recovery. With the existence of Group2 that are composed mainly by merchants and committing for short-term by business interest, contribution of Group1 and 3 will

be promoted.

Group3 will be involved in recovery discussion by keeping Group3 as customers through Group2's long-term business network. Group2 will be kept by reflecting Group2's critical vision into Group1's broad and positive recovery vision toward more practical and sustainable way.

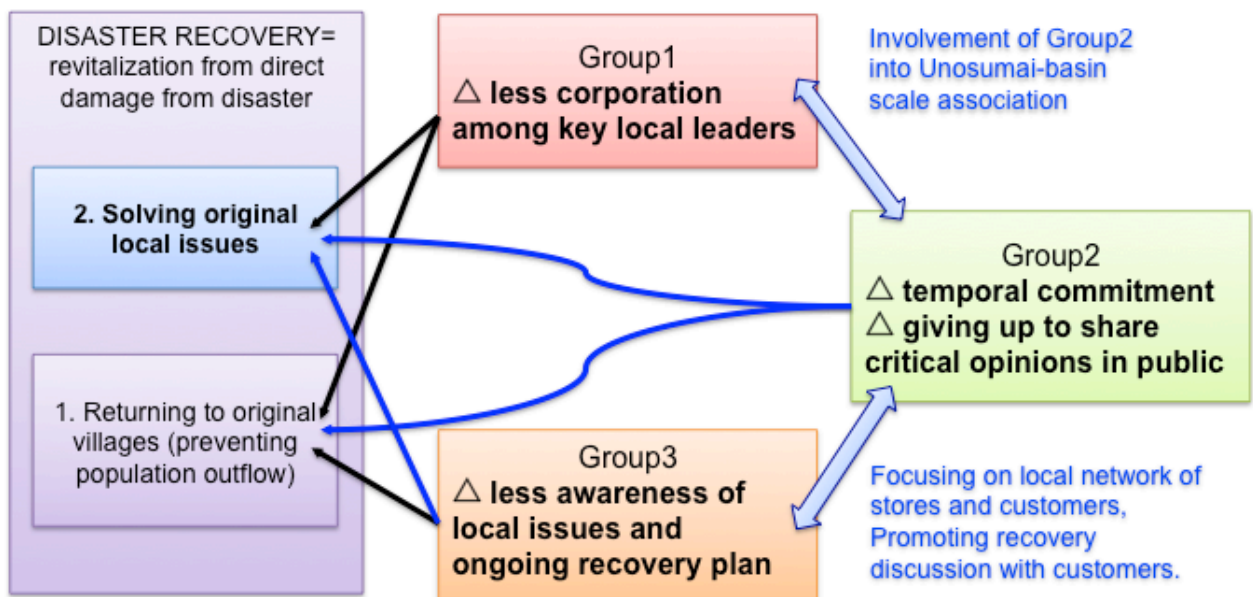


Figure 15 Future visions beyond challenges

### Future vision for Group1 and Group2

#### **Involvement of Group2 (mainly store owners) into town rebuilding discussion**

Interviewees in Group1 perceive this disaster as an opportunity to structurally revitalize local area (Q4) but as they already have strong attachment to the area where they were born and grew

up (Q1), they are relatively positive for disaster recovery (Q6). They may optimistically expect tourists coming in from outside and residents coming back as well. To increase the feasibility of their visions, I would suggest involving critical opinions from Group2.

For example, in the ongoing discussion of establishing a Unosumai basin-scale consociation, Group2 type merchants should be also structured. It seems that the group receiving subsidy, “The Group for Regeneration of Unosumai”, is already included in the consociation. In the same way, how about involving other merchants that didn’t use that subsidy system? As already summarized in the section 4.2, they are the one who can doubt the stereotypes in terms of “recovery”. They are the one who can be skeptical about “recovering” every single village, life, shop exactly in the same way as before, or someone did in other areas, as it may not applicable in the future generations. Such a sense of sustainable disaster recovery should definitely be integrated with proactive wider visions of Group1.

In detail, there is already an new organization for recovery, “General Incorporated Association Unosumai Town Building Center”, which is consist of around 15 merchants in age 30s to 50s. I would strongly expect other merchants to join it and this association itself to be structured into a whole Unosumai basin consociation with enough power of reflecting opinions from such younger generations. As many of interviewees in Group1 already had experiences to live or work outside of the city / prefecture, they are good at bringing other successful cases from



outside. But not only just copying past examples, they would better to critically rethink about their visions with Group2.

### **Future vision for Group2 and Group3**

**Strengthening 1) the network of stores and customers, and 2) keeping the new community of stores from temporal shop street into new town building, with 3) well-examined customer needs.**

#### **1) Strengthening the network of stores and customers**

The relationship between Group2 and Group3 can be of merchants and customers. Firstly, from product and service point of view, Unosumai district has many locally based merchants. Residents around merchants are loyal customers because what products and services have been embedded in local people's daily life. For examples, Horaikan that Mr. D. Y. work for is a hotel business but also used for local people for Buddhist ceremonies from the long time ago. Mr. T. O.'s Anderson Bakery provides foods, Mr. S. I.'s Taiyo Taxi provides transportation, and Mr. S. S.'s Sasagen Auto Cycle provides essential goods both for residents and fishermen. Even though many of their original customers have died by this disaster, they still have old relationships together with new residential customers they gained after restarting business in temporal shops near temporal houses.

Of course, some tourists, volunteers and temporal workers in the area who came in after the

disaster are also included in customers segments. But due to the short-term stay, long-term regular purchase will not be expected to them. It would be unrealistic to expect them as core customers because the amount of customers in these segments has already been decreasing as time pass from the disaster. Thus, as locally based merchants, Group2 would better to try their best on keeping network with local customers like Group3 through their businesses rather than prioritizing temporal segments.

Secondary, from the view of network between customers and merchants, it is more like reliable neighborhoods rather than simple purchase relationship. Originally, many of those merchants were integrated into owners' house that could provide courteous on-demand customer services sometimes out of set opening hours. For example, Ms. K. said "if a customer ran into a barbershop even after the closing time, they accept the customer and did haircut as normal", Mr. S. S. also said his business is 24 - 7, so that he can ran to fishermen if they have any problems in engines even in the very early morning in cold winter days.

As described in interview results, many owners tried to or actually shut down their business after the disaster because they lost so many local customers as core segment. But at the same time, some merchants made up their mind to restart their businesses thanks to expectation of loyal customers or anyone around them. In more fortunate case, some merchants could gain number of customers and regrew their shrunk businesses thanks to special demand in disaster recovery

process. By meeting customer needs under special post-disaster conditions with less opening merchants, many merchants could seem to establish mutual support relationship with customers.

Keeping such reliable networks would be one of the motivations to remaining in the vacant devastated area. For residents, they preferred to live in the area with enough merchants because it'll be more convenient and lively. For merchants, they preferred to maintain shops in the area with more customers, with more profit. Thus, both merchants and customers are more like in the relationship of chickens and eggs.

## **2) keeping the new community of stores from temporal shop facilities into new town**

Even if each merchant could establish such reliable network with local customers as proposed in 1), anyway the biggest shift will come within 2 or 3 years when they have to move out from temporal shops and houses. Next necessary step is keeping number of merchants with customer network into new town building. The highly expected solution for this is “Integrated Commercial Zone” which is discussed to build in center of Unosumai.

Both in Unohamasu and Kaminosawa temporal shop street, it was almost first experiences for merchants to be placed together. As Mr. T. S. and Mr. S. S. pointed out in interviews, merchants in Unosumai only had association but haven't formed a real shopping avenue. Experiencing temporal “shopping avenue” style for the first time, many merchants have positive impression on it because of synergetic effect among diverse businesses.

Ms. K., Mr. T. S. say, they did not have shopping street even though they have merchants association. Ms. M. H. also notices the mutual mental help among merchants in closer area in this post-disaster process. They also acknowledge the synergic effect for customers shopping. All mentioned that they were helped by others to be here, and many of them hope to move as a whole community of merchants into new town. In this light, I would also suggest owners' residential area to be located in the same place as "Integrated Commercial Area". So that they can keep the culture of locally based family owned business providing on-demand services.

### **3) well-examined customer needs.**

**It is necessary to gather as much needs from residents as possible about new way of merchants and town rebuilding**

Not only just accepting proposition from outside or just thinking about merchants' merits but they should definitely care about what is the best way of Integrated Commercial Area for customers. For instance, what kind of location of each business and combination will be the best



**Figure 15 Town rebuilding discussion together with customers and merchants (left: map of Land Adjustment Plan and pieces of potential facilities, middle: the way they discuss moving pieces, right: one of the visions of collective merchants facility)**

to provide safer and more convenient shopping life for customers?

In this point, actually there is one ideal movement done by a Barbershop H. As shown in the picture above, Ms. M. H. printed a map of land adjustment plan which was proposed by city government and put some small pieces of potential facilities in future Unosumai such as schools, a hospital, rugby field and Integrated Commercial Area etc. She promotes daily discussion on Unosumai town rebuilding among merchants in the same Unosumai temporal shop street, or with residents as customers. She takes notes of anything she notices by playing with it, so that she can summarize in a handout and propose in the next meeting among merchants. This is exactly one of the ideal behaviors of Group2. This strategy will be also helpful for Group3's challenge to deeply understand what's going on in so-called "land readjustment plan".

It would be better if both networks between merchants and customers, as well as community of merchants could be kept in the new town building. As one of the potentials for this, Integral Commercial Area is highly expected. For that, customer needs for safer and more convenient shopping life should be carefully examined as well as merchants' deeper discussion toward new town building.

## 6 CONCLUSION

In conclusion, Group2 will play a very important role for disaster recovery in the long run. Especially, Ms. M. H. plays one of the ideal roles, by open discussion about recovery and Land Adjustment Plan together with merchants and costumers.

In conclusion, first of all, I identified three different types or local residents in terms of willingness and action towards disaster recovery. Through the discussion, I found that Group2 have the most critical views to disaster recovery. By promoting discussion with customers, focusing local business network, merchants like Group2 could be in mutual-help relationship with residents like Group3. And this would be motivation for both merchants and customers to remain in devastated area. Also, Group2 could be involved into Unosumai basin-scale consociation towards wider consensus, by Group1's organization skills. Thus, Group3 would be aware of solving original local issues through recovery discussion, and Group2 would be active in tackling with these issues with their critical opinions as well as they obtain long-term motivation to remain in the devastated area.

**As a final statement, I conclude that involvement of Group2 and mutual connection with Group1 and Group3 would be a key for disaster recovery to keep residents live and promote critical discussion on recovery and original local issues in the case of devastated Unosumai district.**

## CITED REFERENCES

- Fukutome, K. 2012. Saigai Hasei ni yoru Shuraku Iten Youin ni Kansuru Kenkyu. Niigataken Chuetu Jishin ni okeru Ojiyashi Jyunidaira Shuraku no Bousai Shudan Iten Sokushin jigyou wo Jirei to shite [A research on community move by occurring of disasters –a case study on community move promotion for disaster reduction in Juni daira, Ojiya city at mid-Niigata earthquake] *Journal on Urban Planning*. Vol. 47 (3): 913-918
- Hayashi, H. 2001. Long-term recovery process and their planning from devastating earthquake disasters. *Journal of Geology*. Vol. 110 (6): 991-998
- Hirose, H. 1981. Disaster process, social scientific approach to disaster. Shinyo Sha
- Ito, Y and Takada, M. 1996. A case study of the kinship relations and housing needs and housing reconstruction process after Hanshin-Awaji disaster. *Urban Housing Sciences*. Vol. 15
- Iwate Prefecture, General Affairs Division. 2011. Tohoku chihou Taiheiyooki Jishin ni kakawaru Jinteki higai Tatemono higai Jyokyo ichiran. [Damage on People and Building by the Great East Japan Earthquake] (Retrieved at 5<sup>th</sup> February from <http://www.pref.iwate.jp/~bousai/taioujoukyou/201209051700jintekihigai.pdf>)

- Kamaishi City. 2011. *Kamaishi Shi Toukei Sho Heisei 23 nendo ban* [Kamaishi City Statistics, Fiscal Year 2011]. Kamaishi (Retrieved at 5<sup>th</sup> February 2013 from <http://www.city.kamaishi.iwate.jp/index.cfm/10,22134,c,html/22134/20121102-181956.pdf>)
- Kamaishi City. 2006. *Kamaishi Shi Toukei Sho Heisei 18 nendo ban* [Kamaishi City Statistics, Fiscal Year 2006]. Kamaishi (Retrieved at 5<sup>th</sup> February 2013 from <http://www.city.kamaishi.iwate.jp/index.cfm/10,3040,c,html/3040/02.pdf> )
- Kamaishi City, Task Force on Disaster Reduction. 2011. Higashi Nihon Daishinsai Higai Jyokyo nado ni tuite [About the damage situation of the Great East Japan Earthquake.] (retrieved at 5<sup>th</sup> February 2013 from <http://www.city.kamaishi.iwate.jp/index.cfm/10%2c19080%2cc%2chtml/19080/20120213-141801.pdf>)
- Mizumura, H., Uchida, Y., Uesugi, K., Koga, T. and Kanki, Y. 2010. Reconstruction of housing after the mid-Niigata prefectural earthquake –A study on housing for intermediate and mountainous area in Yamakoshi, Nagaoka City-. *Journal of Architecture and Planning*. Vol. 75 (654): 1897-1906
- Ohori, K. 2009. Guri-nn Tu-rizumu ga Sodateru Mono [Incubated by Green Tourism], Kibo-gaku [Regeneration of Hope] 2. Edited by Kurota, Y. and Nakamura, H.



Oikawa, Y., Katada, T. and Kobayashi, S. 2002. A study on intension of a move after heavy rainfall disaster in Toukai area. *Annual Journal of Hydraulic Engineering*. Vol. 46: 307-312

Research Group on conscious survey of living and reconstruction of Kamaishi Citizens. 2012. Basic Report.

Yasuba, K., Nojima, M. and Dohi, M. 1996. A research study on community sense to the reconstruction plan at Suma ward, Kobe city after the Great Hanshin-Awaji earthquake. *J. JILA*. Vol. 59 (5): 253-256

Yoshikawa, T. and Nakabayashi, I. 2006. A study on multiple factors for housing reconstruction activities of suffered families: A case study in Degirmendere after Marmara Earthquake. *Urban Housing Science*. Vol. 55 (Autumn 45)