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LOCAL INITIATIVES FOR SUSTAINABLE DEVELOPMENT IN RURAL HOKKAIDO: A CASE STUDY OF SAMANI

ABSTRACT. The paper presents the results of a field investigation about sustainable development of Samani town – a rural area in Hidaka region, Hokkaido, Japan. Local activities, business, environmental, social and economic challenges that affect the town as well as the advantages were investigated. The research was done by means of field visits, questionnaires and interviews involving the local people and government. The main economic sectors: olivine industry, fishery, agriculture and tourism were targeted as well as the government sector and the local high school with a particular focus on rural-urban migration. Samani has quite unique natural features on hand but a few strong comprehensive challenges on the other hand. The authors focused on the citizens opinions and positions which were based on the uniqueness of Samani and their own local activities and initiatives for the sustainable development of the town in the future which can be replicated in other rural communities around the world.

KEY WORDS: social research, rural development, rural depopulation, geopark, sea temperature rising, eco-product

INTRODUCTION

Rural areas in Japan are plagued with a common problem of declining population which began during the industrialization

and modernization of the country due to rural-urban migration [Matanle, 2008]. This has been further exacerbated in recent years due to a decrease in births and an aging in the population which has resulted in some village communities virtually ending its existence. Schools have closed nationally in Japan at a rate of 400–500 per year due to this problem [Nobuo, 2012]. In some extreme cases even the post office closes its doors. But all is not lost, there have been initiatives both from the Government as well as people driven that have sought to curb this issue. One example that arose out of this problem was the emergence of the One Village One Product (OVOP) movement which has been promoted throughout Japan and in other parts of the world. This community centered and demand driven regional economic development approach was initiated by Oita prefecture in Japan in the 1970's with one of the objectives being to prevent depopulation [Oita OVOP International Exchange Promotion Committee, 2012]. A regional workshop was held during the 9th Science and Technology Foresight and was aimed at drawing up a regional model fully compatible with the environmental conditions of the region, wherein citizens live comfortably [National Institute of Science and Technology Policy, 2010]. This research was initiated by the Science and Technology Foresight Center of Japan to discuss with



Fig. 1. Location of Samani town [Aoki, 2006]

representative stakeholders a wide range of issues from the viewpoint of realizing the desired future society.

Samani town is located in the northern island of Japan called Hokkaido. The town's name is said to come from the Ainu term *sanmauni*, which means "place of withering trees" [Mt. Apoi Geopark Promotion Council, 2013]. It is part of the Hidaka region and is found between Urakawa and Erimo (Fig. 1). There is apparently another meaning "place of the otter" which suggests that otters may have populated the area in the past and then became extinct. Samani has had its equal share of the effects of this problem and is facing the same challenges that are common to other rural areas in Japan. Since citizens believe that the uniqueness of Samani could help in its sustainable development, how do we leverage existing practices in Samani to strengthen the relationship between humans and nature with the goal of it becoming a *model sustainable town*? How do Samani people see their future and what features, advantages and disadvantages do citizens regard as most important? This research is premised on the belief that the optimal way of sustainable development of the rural regions lays in a comprehensive approach: citizens' knowledge and governments' support. The objective of this research is find out the strengths of Samani from the citizens' point of view, thus providing a way forward for its citizens. It is hoped that the lessons learnt can be reproduced in

other rural areas as well conducive to the realization of the ideal social model of each region in the future.

MATERIALS AND METHODS

This research was completed during the Follow-up Program of international summer school "Sustainability for coupled human and nature" under the auspices of the Global Center of Excellence, Hokkaido University and the Samani government in November 2012. The investigation was carried out in Samani town which pertains to the Hidaka Subprefectural Bureau of Hokkaido. It has an area of 364,33 km² and a current population of 5,029 as of March 31st, 2012 [Japan Autonomous Academy, 2012].

The research was done by means of field visits, questionnaires and interviews with the local people and government. We studied the main economic sectors, namely, olivine industry, fishery, agriculture and tourism; investigated the government sector (divisions included education, commerce, administration, tourism, tax, forestry, water, library, civil and disaster preparedness); enterprise (seafood, sports gear, convenient store and the private sector commission); and the local high school with a particular focus on rural-urban migration. One field visit was done per sector and was facilitated logistically by the Government of Samani.

A total of 25 interviews were conducted reciprocally in Japanese and English,

facilitated by an interpreter. The interviews were audio recorded for further analysis and notes were taken simultaneously in triplicate and merged into one document at the end of the interview. Persons were selected from each of the sectors based on their willingness to participate and availability. Each interview had 9 core questions which were accompanied by several follow-up questions. The main questions were with regard to advantages and disadvantages of Samani and challenges for their business (economical, social and environmental aspects).

A total of 168 questionnaires were collected and analyzed. Questionnaires were distributed at the Samani Government Office, the high school, and the Samani Food Festival which coincided with our research period. Depending on each participant, a range of 6–12 questions would have been answered per questionnaire. All questionnaires were done in Japanese.

A meeting on Disaster preparedness between Samani and Noda towns which occurred during our research period was attended and formed a part of our investigation. A town hall meeting was held successfully to present our preliminary findings to the citizens and obtain feedback from them. Finally, a presentation with recommendations was made to the Samani Government for their consideration and possible implementations in the future.

RESULTS AND DISCUSSION

The Local Food Festival, an annual event in Samani, was a good opportunity for us to interact with citizens and learn more about the unique features of Samani, its activities and traditions. At the festival, 95 questionnaires were collected with 82% of the participants from Samani and the rest being visitors from Urakawa, Erimo and Sapporo. The results showed that citizens consider the festival as a local food fair while visitors saw it as an avenue for advertising Samani products. Besides the food sale, there were social activities that were family oriented as well, which is a rather important

feature for rural communities. According to the responses, participants believed that this annual activity serves to promote local culture and cuisine (48%), social awareness and cultural heritage (43%) and community development (48%). Since Samani is still not as well known as its neighbouring communities (Erimo and Urakawa), the festival can serve to improve its image if it is adequately advertised, thus attracting more visitors. This would be beneficial to the citizens since they can sell their products to persons of other regions of Hokkaido and it can be coupled with sightseeing for other visitors who are interested, thus showcasing Samani.

Fishery is one of the main sectors in Samani (kelp, whelk and salmon), a similar feature to other coastal towns in Hidaka region and Hokkaido as well. Samani has had this fishing culture from the time of the Edo period and its fishing ground is located where the Kuroshio Current (warm waters from the south) meets the Oyashio Current (cool waters from the north) which is very fertile. What is important is that the four fishermen interviewed all highlighted issues related to the environment as critical to the industry. Climate change and sea temperature rise affected the sector resulting in a decline in catch, kelp spoilage (Fig. 2) and infiltration of warm water species. Salmon catch has



Fig. 2. Good quality kelp (left) and spoil kelp (center and right) (Photo by D. Dublin)

particularly declined over time [Miyakoshi *et al.* 2008]. The fisher folk seems quite informed in this regard and share a working relationship with researchers. There are already various types of activities to deal with this issue such as earlier harvesting of kelp and the planting of rocks to facilitate new kelp growth.

In the agricultural sector, four farmers were interviewed. They mentioned mild climate as a good climate resources and highlighted the economy as their main concern. The fact that they need expand their farms but land change is difficult also limits their development. Because of these issues, social problems arise since the next generations of farmers are looking for more lucrative business opportunities. To achieve this, new product (strawberry) or special labeling is being used to increase the price of products. The most notable is the “Yes! Clean” label used for rice which replaces commercial fertilizers by 50% with animal manure, a good way of having crop and animal farming integrated. In addition, this label can only be applied to products grown in Hokkaido, so this helps the cause of Samani due to its location on the island as well [Department of Agriculture Hokkaido Government, 2011]. Most of the farmers are aged and their children show little or no interest in continuing the farms. As a result, most of them are considering hiring persons to run the farm, lease it or sell it to others only if they are interested in farming. This is indicative of the cultural attachment to farming. As a horse farming area, this is a welcome initiative since many young people are still interested in the horse business and have developed a regional online community for young horse farmers where they exchange pertinent experience in their business. For business development farmers look to agrotourism and horse-therapy service in the future.

The Toho Olivine Company was the only site visited in the industry sector but this is by no means a limitation since it is the most important industry in the town. This is because peridotite rocks are quite unique

to Samani town and this company does a lot to commercialize it for various uses due to its many properties. It forms an important part of the citizen’s lives since the rocks can be seen in many sculptures, in construction and in use for drying kelp. Beside this peridotite rocks provide rivers and coastal waters for fertilize. This rock is also the reason why the town has found itself in the Japan GeoparkNetwork and is seeking recognition as a Global Geopark. Due to the obvious destruction of the natural environment, the company spends time on the replanting of trees after mining would have been completed in the area (Fig. 3). Against this background, a balance is struck between mining and environmental health.

The tourism sector continues to attract quite a number of tourists although lower than the maximum capacity of available accommodation. Many tourists are specialists, researchers or eco-tourists with particular interest in geology, biology and such like. The four interviews conducted revealed that there are ideas of promoting the town as an alternative to the harsh winter in Hokkaido, a fact that is not well-known. Already a food festival was launched with fair success and discounted rates and campaigns are advertised. The hotel owners said that there is a need to increase awareness, cultural knowledge and history among residents and the need for the existence of signs and information for tourists so that they can find themselves around quite easily. Some local people have made attempts to promote Samani via internet blogs and forums with a big enthusiasm .

The private sector is still somewhat vibrant in spite of the decline in population. This social aspect continues to hurt the business community who also happen to be aged. From the four interviews conducted, there was an expression of the view for better infrastructure and connectivity in the Hidaka region, since collaborative efforts would benefit the business community in a large way. The Private Sector Chamber of Commerce is filled by businesses of various



Fig. 3. Replanting of trees in a mined out area by Toho Olivine Company (Photo by A. Bancheva)

types and there is the common goal of having continuity and prosperity in the region.

At the Samani Governance Office, 7 interviews and 26 questionnaires were collected from persons attached to various departments. It must be noted that while the government officers offered ideas and opinions that were very similar to the official position, it also corresponded with what was found on the ground with the general citizenry. There seems to be little disconnect with the reality on the ground which shows that the office has a fairly good working relationship with the citizens and are in sync with their needs. A disaster preparedness meeting which was held between the sister towns of Noda and Samani, demonstrated a close

neighbourly relationship between the two. Many mechanisms are in place to deal with possible natural disasters, mitigation of their effects, risk assessment, response in times of disaster and recovery after disaster would have struck.

The high school was visited specifically to explore rural-urban migration, since this trend further exacerbates the depopulation, low fertility and aged society phenomenon which is a common feature in Hokkaido and Japan at large (Fig. 4). Currently Samani only has an average of 20 births annually and 70 deaths per year [Samani Government, 2011]. The students and teachers were consulted with 47 questionnaires received and an interactive session was conducted.

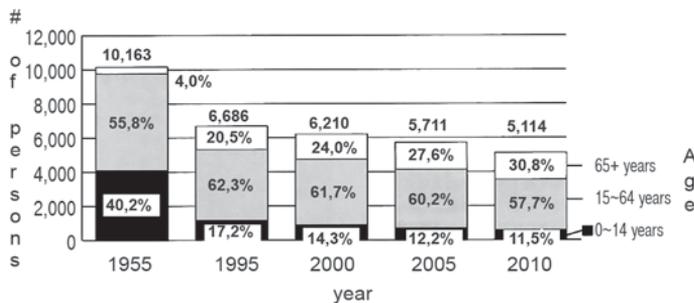


Fig. 4. Population change in Hokkaido [Bureau of Regional Planning and Promotion, 2008]



Fig. 5. Participants at the town hall meeting in the brain storming exercise (Photo by D. Dublin)

The children expressed the view that jobs were their main reason for wanting to leave but this is in direct contradiction to the businesses that said there are vacancies but Samani residents are not filling them and as such persons from Urakawa and Erimo have to fill these slots which indicates that apart from jobs. According to the answers 38% of students want to stay in Samani. They would like to have jobs in the local town office, bank, post office and factories; as well as in childcare and hospitality. Other students want to further their studies and only few of them want to return to Samani after graduating from university. Currently many middle-aged persons return to take care of their aged parents and oversee their businesses. Teachers are all from foreign areas and as such do not have enough attachments to the local community to want to deal with this issue.

The town hall meeting was held and it cemented our findings since the feedback obtained from the citizens demonstrated that their opinions were correctly reflected in our findings. The idea of “town hall meeting” is gathering citizens in one time in one place to discuss the theme “Future for Samani”. The advantage of this meeting is a possibility to gather people of all ages and all professions. People from government take a part as well. Participants were randomly grouped and asked to name

several topics the most important for the future of Samani (Fig. 5). There were ‘nature’, ‘independent/self-sufficient Samani’, and ‘industrial development’. The next task was to come up with specific actions to make those dreams of the future come true. The groups reconvened, brainstormed a list of ideas, and settled on which ones seemed the most exciting: marketing nature, solar electricity, and exporting new value-added goods. These ideas are important since nature conservation for a calm countryside and industrial development can both be achieved cohesively. Therefore, the town hall meetings with citizen involvement could be an important strategic planning instrument.

CONCLUSIONS

Being famous mostly because of its geology, it was the first time in Samani that a research of this nature, that is with a very large social component was embarked upon in the town with results that are workable and applicable by the citizens and the administration. Our results reflect almost completely the feelings and sentiments of the citizens about town development and indicates therefore that the people of Samani are capable of determining what they want for the future, where they want to go and how to get there realizing their own pros and cons without the influence of outsiders. This has been proven in various ways around the world such as in

the forest communities of East Kalimantan [Sari, 2009], agricultural communities in Northeast Thailand [Hirokawa, 2010] and disaster management in Bangladesh and Vietnam [Shaw, 2006].

Moreover, there are initiatives citizens are involved in, that contributes towards the general wellbeing and development of the town. These include locally branded products promoted at local festivals designed to enhance and promote community building; the partnering with the scientific community for sustainable fisheries; the compatible mining of economically important ores in an environmentally friendly way; and regionally branded agrotourism collectively

contribute to sustainable development with a multisectoral approach. It can be concluded that similar exercises should be conducted in other rural towns globally, thus reciprocating people driven sustainable development in other parts of the world.

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