

The Current State and Problems of Satoyama in Japan

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Abstract: The purpose of this research is understanding problems about the status of Japanese Satoyama or mountain village. Student from Kansai University visited a Satoyama called Osugidani in Mie Prefecture with Filipino students from De La Salle University. The students completed a survey with cooperation of Osugidani Nature School; a NPO. Students discussed problems and the solutions of the Satoyama with Filipino students and people in Osugidani. Research methods included an interview with Yoshihiro Hosobuchi, who manages a forestry in Satoyama. In addition, students' observation the Satoyama during fieldwork. The result showed the following three problems. ① Decline of forestry ② Decline of population ③ Dam construction causing the deteriorate of the ecosystem. To stop these results, the authors suggest two solutions. "Environmental education in educational institution" and "Intervention by the companies".

Keywords: satoyama, mountain village, education

INTRODUCTION

The purpose of this research is to understand some of the problems about the status of Japanese *Satoyama* or mountain village and suggesting solution for the problems. First, *Satoyama* are mountain areas with ecosystems. It is adjacent to villages and is affected by people. *Satoyama* in Japan existed since at least Stone Age, named *Jomon* Period (14,000 BC to 400 BC), when people and the natural environment coexisted well. Currently, Japanese face some problems. For instance, there is an increase in environmental burden due to urban activities and aging of people in *Satoyama*, limits on rural maintenance accompanying depopulation, and disappearance of *Satoyama*. To build and maintain a sustainable society, it is necessary for production and consumption with less negative environmental impact and material circulation systems to switch to living in harmony with nature. For this reason, technologies and knowledge that sustainably utilize the limited resources of the area are cultivated in everyday life. Furthermore, it is important that the *Satoyama* that create an environment to foster diverse ecosystems and resolve problems. To try to solve some of the current global environmental problems from the point of *Satoyama*, students at Kansai University conducted a survey on the current situation of *Satoyama*.

SURVEY METHOD

To conduct the survey, students visited the *Satoyama* area, inspected the site and interviewed people who lived in the area for a long time. This survey was done in February 2018, with a group of

students from the De La Salle University in the Philippines. Students visited a *Satoyama* called Taki-gun, Odai-cho in Mie Prefecture and for three days under the cooperation of an NPO corporation called "Osugidani Nature School". Students visited dams, developed forests areas and gave surveys.

investigation result

In conclusion, three problems were revealed as follows.

- 1 Declining forest industry
- 2 Decrease of population
- 3 Deterioration of ecosystem by construction of dams

(1) *Declining forest industry:*

The forest industry is the primary business of *Satoyama*. The population engaged in the forest industry is drastically decreasing. According to the national census, the number of forestry industry workers has declined over the long term. In 2015, the number of forestry workers was 45,000 (shown in Figure 1). The forestry industry worker's rate of aging is 25% in 2015, which is higher than 13%; the all-industry average. (Figure 2) The reason is imports from abroad and difficulty obtaining machines to work on the mountain. In a practical manner, Japan relies mainly on importation from abroad because Japanese timber self-sufficiency rate is 30%. With this situation, it is difficult to profit in the forest industry. This situation caused

(2) *Decrease of population*

Young people moved out from village to city. In Odai-cho, there are not many residents in twenties and in elementary school.

(3) *Deterioration of ecosystem by construction of dams:*

Since dam construction in Odai-cho cause changes in the amount of water, deterioration of water quality, and decreasing fish and aquatic fauna. These phenomena occur not only in Odai-cho but in all of Japan, and can lead to a sharp decrease in the number of fish (for example sweet fish) moving upstream of the river. In addition, earth and sand accumulated in the dam cause flooding of the river and sludge generation.

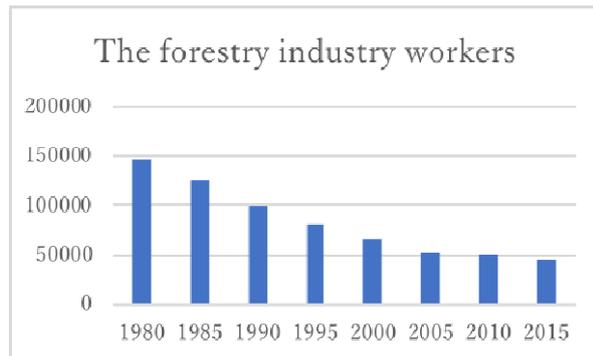


Figure 1. Forest Industry Workers

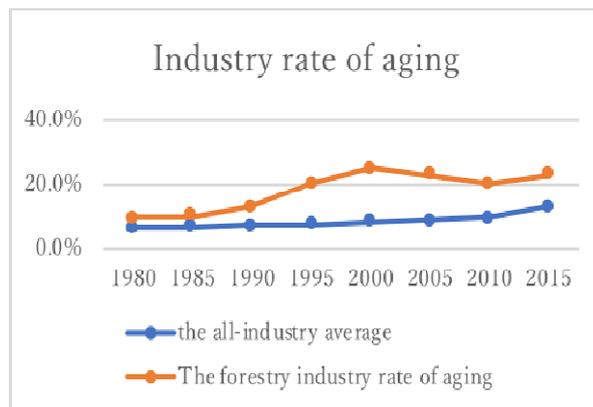


Figure 2. Industry Rate of Aging

Conclusion

Based on the results of this research, to solve above three points requires, not only education and public relations about *Satoyama* but also the restoration and preservation of the environment broken by human activities such as building dam and destroying forest.

Some examples are "environmental education in educational institution" and "intervention by companies". The former "environmental education" means changing the awareness of the natural environment from childhood and to deepen the recognition about natural environment and *Satoyama*. In addition, the education can increase awareness of forming a sustainable society. In fact, the Ministry of Education of Japan as part of environmental education "earth learning and observation program for the

environment (GROBE)"(※2) conducted new learning guidance proposals that concretely contains contents on environmental education in elementary, junior high school, high schools.

(※2) Earth learning and observation program for the environment (GROBE)

Teachers and scientists from all over the world cooperate with each other to improve awareness of the environment of individuals, to promote scientific understanding of the earth and to reach higher standards in science and mathematics education. A program for international environmental education based on schools conducts environmental observations and information exchange for this purpose. The purpose of "intervention by enterprises" is to encourage environmental conservation activities by corporate CSR and increase awareness of environmental conservation and sustainable development. According to the data of the Ministry of the Environment Survey, about 47% of the companies and about 50% of the companies who answered, stated that they were doing environmental education for their employees, a proportion that is rising year-by-year. It is a sign that things are changing. However, both "environmental education in educational institution" and "intervention by companies" takes time to create awareness in people and companies. It is important to continue education and publicity about *Satoyama* as well as promotion of environmental restoration and conservation activities.

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