Co-management of the forest with religious trees by the community people and the government

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Abstract

In Shimosuwa of Nagano Prefecture, there is a national forest where the community people participate in the management of religious trees that are used for their traditional festival called *Onbashira-sai*. The highlight of the festival is the part where participants drag out huge logs of religious trees (*onbashira*) from the mountain to the town and haul them as pillars for four shrine buildings. The fir trees used as onbashira grow in the high mountain forest in Suwa region with great biodiversity. Since Edo period, people of Shimosuwa have cultivated the trees in the same area of the government forest. How has the community's religious common pool continued in the government forest? It can be seen as dynamic co-management of the forest throughout history. During Edo period, the forest was owned by the local clan, and it was a rich common pool of various resources including hawks as offerings to the shogun, timbers, firewoods, fertilizer, and materials of livelihoods for the people. The clan permitted some villages to use resources in limited areas as the commons on the condition of managing them. To preserve hawks' habitat, the clan appointed the managers among the nearest villages and gave them strong authority for guarding the sites. The forest was governed by multileveled authority figures with hierarchical power depending on the value of the resources. Even when the use of the forest was condemned by Meiji government, the community demanded to continue cultivating their religious trees, and the new government could not neglect the legitimacy of cultural and religious tradition. In more recent years, the community concerned with the sustainability of the forest and its trees organized volunteers for tree conservation and signed a contract with the Agency of National Forest to co-manage the forest where they cultivate trees for onbashira. This paper offers an example of cultural commons with non-consumptive uses that became a strong motivation for sustaining the common pool.

Key words: *co-management; religious tree; multi-leveled actors; legitimacy of cultural and religious toraditon*

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INTRODUCTION

Most of the traditional festivals in Japan are deeply connected with nature and the local natural environment. The festival signifies spiritual and cultural expression of local people with their prayer and appreciation for the blessings of nature. Each traditional festival has been the cultural commons of each community for a long time, and today, it has become the commons for people all over the world as common cultural and spiritual heritage and also as the ESD (Education for Sustainable Development). On the other side, these cultural commons are endangered by dwindling population of local communities or by development projects with focus on economic growth. How can these commons be sustained? One of the key questions is who can be the main actors in it.

This paper is a case study on management of the forest where sacred trees are cultivated for the traditional festival called *Onbashira-sai* (Onbashira Festival) in Suwa district of Nagano prefecture in Japan². This study is conducted by analysis of documents on the history of Shimosuwa town and Onbashira Festival and by interviewing the local people including historians and officers of the national forest. In addition, field research was carried out at Onbashira Festival in 2010.

COMMON POOL OF RELIGIOUS TREES FOR ONBASHIRA

The Onbashira Festival is one of the most famous traditional festivals in Japan, and it has continued for more than 1,000 years. This religious festival of Suwa Taisha Shrine is held every 6 years in Kamisuwa and Shimosuwa of Suwa district. This district of Nagano prefecture is located in the middle of Japan, and it belongs to the watershed of Lake Suwa, the source of Tenryu River which runs into the Pacific Ocean. Since ancient times, this district has been under the strong influence of Suwa Taisha Shrine which consists of Kamisha and Shimosha. Today, even though the district is separated into 6 towns and cities, the local cultural identity based on Suwa Taisha Shrine is still united, and the local shrine parishioners of each shine participates in Onbashira Festival as community members. During the festival in April and May, thousands of local people drag huge logs of religious tree called *onbashira* from the mountainside to

² This festival gained more fame by its presentation at the opening ceremony of Nagano Olympics in the winter of 1998. Since then, the number of tourists visiting *Onbashira-sai* has multiplied, and international media attention has also increased.

the town and halt them up as pillars for four shrine buildings (Honmiya and Maemiya of Kamisha, Harumiya and Akimiya of Shimosha). A pillar is halted on 4 corners of 4 buildings, so there are 16 logs. It takes 12 days to complete it with adventurous ways such as sliding the log down the steep hillside and crossing the river.

For this festival to continue unceasingly, they need enough common pools of religious trees for *onbashira*. Kamisha has its own forest for *onbashira* in Yatsugatake Mountain maintained by the hereditary forest managers, from where the *onbashira* logs have been provided for a long time. In the case of Shimosha, it does not have its own *onbashira* forest but has a pool of them in Shimosuwa. Selecting the candidates of *onbashira* and cutting them down in the forest is done as a religious ceremony by the priests, the representatives of parishioners and the owner of the forest. This process is not open to the public, and the forest itself is considered a sacred place for the communities.

The desirable type of tree for *onbashira* is 150 to 200 year-old fir tree, and it should be long and thick. In Kamisha's *onbashira* forest, this kind of tree has become extremely difficult to find since 1990s. For Shimosha, the pool of trees for *onbashira* is located in Higashimata National Forest, the upstream of Togawa river basin in Shimosuwa Town. There are still enough fir trees growing at a high latitude of the forest, from where the Shimosha and the parishioners continue to obtain logs for *onbashira* as granted by the government.

IRIAI IN SHIMOSUWA DURING EDO PERIOD

To analyze the management of onbashira forest, it is important to understand the *iriai* (communal) forest during Edo period (1603-1877) in Shimosuwa as a background. A large-scale *iriai* forest and wilderness area was settled in the upstream of Togawa river basin, mostly in the main tributary's watershed, Tozawa. Another main tributary's watershed, Higashimata, was owned by Shimosha and Suwa Han (the clan of Tokugawa's feudalistic regime in Edo period). It can be said that there were two types of forest in Togawa river basin; the forest of the people, and the forest of the governor. The proportion in dimension was approximately 70:30 (The History Book of Shimosuwa Town, 1985).

In the beginning of Edo period, the population and crop yields of the villages increased. As a result, they needed more and more resources for supporting their livelihoods. Common-pool resources (CPRs) obtained in *iriai* lands such as firewoods, fertilizer, hay, timbers, animals, wild vegetables, and medical herbs expanded to all over Tozawa. By the middle of Edo period when the capacity of Tozawa reached its limit, conflicts concerning *iriai* lands often occurred among villages (History Book of Shimosuwa Town, 1989). In the middle of Edo period, a new village named Hagikura was settled at the foot of Higashimata forest in the clan's land. Following that, *iriai* forest of Hagikura and other villages was also settled close by. Several irrigation waterways were constructed using the water from Higashimata River.

'It became difficult to keep away people from the clan's forest because the villages needed more resources. Until the end of Edo period, the various use of resources existed also in Higashimata'.

A local historian explained³. According to him, in Shimosuwa, the allocation of resources in *iriai* was as follows. The most important resource for rice paddy fertilizer, *karishiki*, was cut from the green shoot of broad leaf trees in the lower side of the mountain forest, among them some trees for timbers were loosely planted or seeded. On the mountain plateau, grass for field fertilizer and domestic animals and daylily for thatched roof were cut. Due to this pattern, using mountain ridge as roadways instead of going through valleys was more logical for economy and for maintenance.

CPRs expanded all over the upstream of Togawa river basin including the clan's forest with the rough allocation of resources depending on the natural conditions. For Higashimata, a type of commons that was governed by both the governor and the people co-existed in the same space. These *iriai* forests were relatively well conserved until the end of Edo period (The History Book of Shimosuwa Town, 1989).

CO-MANAGEMENT OF THE CLAN'S FOREST

How was a large-scale Higashimata forest for both the governor and the people managed? The clan appointed 17 official forest guards called *ohayashi-mi*, of which 7 were from Hagikura village, and they were given authority for controlling the forest (History Book of Shimosuwa Town, 1989). Higashimata forest was a rich source of natural resources from the diverse ecosystem. The most precious resource for the clan was young hawks which were to be trained for hawking and then to be offered to the shogun. The habitat called *otakayama*, a protected forest of hawks, was located in the

³ Hearing from Genkichi Miyasaka who lives in Shimosuwa Town on August 4, 2009. He was the first chairperson of the Committee on Nurturing Onbashira Forest.

some area as *okuyama* (deep mountain forest distant from villages) with much biodiversity. The core area of the habitat was strictly guarded by *yamayaku* (official guards of the *otakayama*) ⁴ who were appointed among the villagers of Hagikura. The core area of *otakayama* overlapped the habitat of fir trees for *onbashira*⁵. Tall, thick and straight fir trees can survive among various species of trees, and they are protected from the impacts of thunder and winds at the high latitude. There, the shrine parishioners of the Shimosha have obtained the logs for *onbashira* since Edo period. For the permission of entering and cutting there, they had to make offerings of sake to the official guards in Hagikura ⁶. The village gained the privilege owing to the decentralization of power over the forest.

It can be analyzed that Higashimata forest was co-managed by both the governor and the people in Edo Period, but it was not simple. It was a complex arrangement of collective use by the local communities and authority figures where power distribution of control was based on the hierarchical rank of the place based on value of its resources. It can be seen as a multi-leveled governance by the multi-leveled actors accommodating the needs of each other⁷. It is interesting that the complex co-management of the forest was able to preserve the precious resources for the governor and the people and provide economic welfare for the local people at the same time.

THE SACRED PLACE ANALYZED BY ECOSYSTEM SERVICES

Areas providing water source were regarded as the sacred place in Japan and were usually protected by the local people. In Suwa district, Kirigamine Plateau was the water source, and the most important place has been the high moors of Yashima Wetland since the ancient times. It was the place of religious hunting in ancient days and of the source of pure water for downstream. The place has been deeply connected with the local religion and identity⁸. The people in Shimosuwa, thanks to the

⁴ The distinction between the *ohayashi-mi* and *yamayaku* is not clear in The History Book of Shimosuwa Town.

⁵ During Edo period, the area of the *otakayama* and *onbashirayama* shifted to upstream of Togawa river basin several times. Eventually, the core area was fixed in Higashimata. ⁶ Hearing from Genkichi Miyasaka on August 4, 2009.

⁷ The study on multi-leveled use of resources in forests, wildness, rivers, and sea before modernization in Japan points that the accommodations between actors resulted in the sustainable ecosystem and the resources (Shiramizu, 2011).

⁸ In 1970's, a cultural and ecological group of Suwa district launched a movement against the construction of the scenic road across Yashima Wetland and Motomisayamasha (the old shrine of hunting). They appealed to 'save the sacred place of Suwa people'. The area was saved as a result of the slight change in the route.

abundance of clean water from Yashima Wetland, never suffered from a shortage of irrigation water. Just a little down from the wetland, is the upper stream of Higashimata River called Kannonzawa, and *otakayama* and *onbashira* forest are located in that area. This upstream area including Yashima Wetland and Kannonzawa used to be the sacred place for the local people.

Location (upstream to	Feature of	Beneficence for People	Main Ecosystem
downstream)	Ecosystem		Service
Yashima Wetland	highland moor	source of water	provisioning
	grass land	hays, daylily, ridge way	providing
	natural larch trees	religious place (ancient	regulating
	birds and animals of	shrine of hunting)	cultural
	grass land	materials for boat making	
Kannonzawa	mountain stream	clean water	provisioning
	with	retaining water	regulating
	rocks, meanders	<i>otakayama</i> (hawks'	providing
	natural forest with a	habitat)	cultural
	variety of trees and	<i>onbashia</i> forest (fir trees)	
	animals		
Higashimata	abundant and stable	water resource for	providing
River	flow of clean water	irrigation	regulating
		regulating flood water	
<i>Iriai</i> forest	mixed forest of	fertilizer, firewood,	providing
	natural and loosely	charcoal, timber, herb, wild	regulating
	planted trees	vegetable, etc.	
Hagikura village	rice paddy, fields,	agricultural and	providing
	settlement	residential land	regulating
Kiotoshi (site for	steep hillside	highlight of onbashira	cultural
<i>onbashira</i> log riding)	meeting point of	festival	
	Togawa River		

Table 1	Allocation of beneficence in Higahimata in Edo period analyzed
	by the ecosystem services

Source: Hoyano, 2010, p.158.

To understand the functions and the meaning of the sacred place in Higashimata during Edo period, allocation of resources has been analyzed using the idea of ecosystem services of MA (Millennium Ecosystem Assessment, 2005) which consists of providing, regulating, cultural and provisioning services (Table1). It indicates that the allocation of the ecosystem services among different areas of Higashimata which is in the watershed of Higashimata River. It is clear that every type of ecosystem services are concentrated or layered in the area around the water source and the natural forest close to the water.

It suggests that the sacred places maintain multiple ecosystem services that are layered including provisioning and cultural services, which can be seen as the unique symbol of blessings from the nature for the local communities. Here in Higashimata's case, it was hawks and *onbashira* trees with non-consumptive use.

MODERNIZATION OF FOREST MANAGEMENT

The destruction of iriai forest in Shimosuwa

Meiji government executed the Japanese modernization in every system; one of the most important reformations was privatization or nationalization of the lands including forests in order to establish the national taxation regime. In Shiomosuwa the government condemned the clan to posess Higashimata forest and made it a national forest. This put pressure upon the prefecture to destruct *iriai*. Tozawa and other *iriai* forests were forced to be privatized into *buraku* (rural community) forest at first. Then some *buraku* forests were 'donated' to schools, and finally, most of them were organized into the town forest. This process did not go smoothly, and it took nearly half a century to complete (The History Book of Shimosuwa Town, 1990). However, some *iriai* forests remained as a form of modern legal ownership in Shimosuwa⁹.

What happened to the CPRs in Higashimata? Since the government did not consider much about the conventional use of resources in the forest, the local communities lost their benefits. Especially for the people of Hagikura, being deprived of privileges for the forest was significant. They petitioned to purchase the forest from the government, but it was not successful. On the other hand, Hagikura succeeded in making profit from the new silk reeling industry using the water from Higashimata River through the irrigation waterways around Hagikura *buraku* and the firewood from *buraku* forest in Higashimata (The History Book of Shimosuwa Town, 1990). The primary stage of modern industry here depended largely on the stock of natural

⁹ Higashiyamada *buraku* did not accept their *iriai* forests to be organized into town forests, and their forests were organized into 3 types (legal forms) of community owned forest; the cooperative forest, the property ward forest and the community shrine forest (Higashiyamada Shiwakai, 2001).

resources reserved during Edo period¹⁰. Later, Hitashimata national forest was transferred to the imperial forest in 1886 and remained so through the end of World War II until 1947. As a result, the forest was actually well preserved even during the war. Because of it, about half of the whole area remained to be a natural forest until 1960s.

Changes in the national forest operation policy

In 1960, the Forestry Agency launched the Aforestation Policy under the high economic growth with pressing demands for wood, and they cut broad leaf trees and planted needle leaf trees for timber. Higasimata national forest was no longer an exception this time. A large-scale natural forest with variety of trees were changed into a simple forest of cider, Japanese cypress or larch. The percentage of natural forest there went down drastically to approximately 10% in 1990s (The History Book of Shimosuwa Town, 1990). Despite the decline of natural forests, the forestry workers were employed among residents of the new settlement just after the WWII in Higashimata area¹¹.

Since 1998, the fundamental change has been taking place in the operation of national forests. A huge amount of deficit in the account was caused by the failure of the Aforestation Policy, with which the domestic timber was defeated by the imported timber from abroad in the market. Because of this, the main aim of the operation of the national forests shifted dramatically from productivity to conservation, which met the public interest. The forestry works become fully outsourced to private sectors. Even then, the account had to repay some part of the debt, and the contradiction started to appear in the field sites. District offices would sometimes cut old valuable trees to sell and leave the forest in a bad shape, and the employment system of forestry workers became a bid tender (Agency of Forestry, 2003).

TODAY'S NEW CO-MANAGEMENT OF ONBASHIRA FOREST

¹⁰ Suwa district, mainly Shimosuwa and Okaya, became the advanced region of silk reeling industry of Japan in Meiji period. Until the import of coal from outside, the biomass fuel from the forests was used. So, almost all *buraku* forests became bold mountains (The Editing Committee on the augmented edition of the History Book of Shimosuwa Town, 1990).

¹¹ Hearing from Shokichi Kitahara, a settler in Higashimata, on August 5, 2009. Kitahara worked in the national forest for several years. Shortly after World War II, many settlements were formed in various places in Japan in order to supply the land and food to the excess population.

Agreement between the government and the local actors

In the previous paragraphs, the historical background for the new type of co-management of *onbashira* forest between the governor and the local people was analyzed. It is interesting that the location of *onbashira* forest has been the same area in Hgashimata for at least hundreds of years, even though the owner of the forest and the policy had changed over time. After the condemnation of the clan's forest by the Meiji government, cutting trees in the national forest became prohibited, but the communities strongly demanded that *onbashira* trees come from the same area as before. In the end, the district office accepted the demand, and since then, the religious trees have continued to be cultivated as a grant from the government, even through the imperial forest term. Any owner of the forest could not neglect the legitimacy of the local cultural and religious tradition that lasted longer than any government.

In 2002, the Committee on Nurturing Onbashira Forest was founded, which consisted of 5 groups in Shimosuwa; the volunteer group of nurturing *onbashira* trees, Suwa Taisha Shrine, the Tourist Association of Shimosuwa, the *kiyari* (the traditional songs for Onbashira Festival) preservation group, and Shimosuwa Town. The committee signed the agreement with the Southern District of Chubu Regional Forest Office. The agreement is aimed to 'improve *onbashira* forest.' According to the agreement, the actors of Shimosuwa participate voluntarily in planting fir trees, cutting vines and setting up the protection nets for young trees to minimize the damage caused by Japanese deer¹². It is the first contract of co-management between the government and the local communities throughout the history. The agreement defined around the 383 hectares of 'Onbashira no Mori' (*onbashira* forest) surrounding Kannonzawa, the native area for *onbashira* trees.

Why was this new contract necessary? Facing a lack of adequate *onbashira* trees in Kamisha's *onbashira* forest, they had to be obtained from other forests; once from Higashimata and once from outside of Suwa district. These "incidents" warned people that good fir trees being endangered means the festival itself will be endangered. Some of the people in Shimosuwa community were also anxious about the sustainability of their trees for *onbashira* in the future because after the restructure of the National Forest regime, there were no longer local forestry workers in Higashimata who understood the value and importance of these fir trees. None of the local members participate in managing of the forest. It could be seen as a risky free riding. In 1996, a local volunteer group was organized in Shimosuwa to research the forest condition and

¹² The Forestry Agency, 5th of May of 2010, 'News on the Nurturing the Beautiful Forest', No.163. (<u>http://www.rinya.maff.go.jp/seisaku/utsukushiimoridukuri/news163.pdf</u>)

to count the fir trees. They negotiated with the district office to establish the program 'Supporting the Culture Dependent on the Forest', and a committee was founded.

Adaptive management by whom?

The local group counted approximately 2,000 fir trees in the 'Onbashira no Mori.' Does the figure show that the area has been adaptively managed in the national forest by the local workers? The officer of the regional forest office explains that it has been managed to conserve the fir trees.¹³ The fir trees intensively grow in that area, though other area has become the artificial single layer forest. So, what will be effect of the new co-management?

'The damage on fir trees is caused, first of all, by the wild animals such as deer, antelopes, bears and boars as they eat or scratch the skin of the trees. Next, by human beings and how they cut. We should consider conservation of the forest as a whole. For example, 8 *onbashira* logs has to be cut down with a careful consideration for the balance of the whole forest in order to avoid various damages. But the reality is that they cut them within a small site for the convenience of business; therefore, the wind will cause damage on the trees left.After cutting down 8 for Onbashira Festival of 1998, 24 trees were fallen due to the typhoon in autumn'.

The first chairman of the committee said¹⁴. It suggests that the agreement allows the local knowledge into the new management of 'Onbashira no Mori.' The knowledge is not necessarily the TEK (traditional ecological knowledge), but the flexible knowledge based on their experiences with the trial and error approach including the hearing from the elderly, research on historical documents and analyzing information from both the local sources and from the outside. Could this be considered an adaptive way? In general, it is said that the adaptive management is necessary for the sustainability of the resources, but by whom? This new co-management of the religious forest in Shimosuwa teaches us the importance of participation by the local people for sustaining the forest. They can be considerably adaptive to the changes of the circumstances. In this case, the most persistent motivation of the local people for conserving the forest is be the inheritance of their religious festival as an expression of their own tradition and identity that depends on the local nature. They are willing to be adaptive for this reason.

¹³ Hearing from Teruaki Furuno on August 7, 2009.

¹⁴ Genkichi Miyasaka, 'Aces in Nagano',

http://www.pref.nagano.lg.jp/kikaku/kikaku/ace/miyasaka/miyasaka.htm (2013.4.3).

CONCLUSIONS

Cultural commons with non-consumptive use are endangered by dwindling population of the local communities or by the degradation of ecosystem of the local area, which has created and sustained them. How can these types of commons be sustained? The case study of this paper suggests an answer. The historical forest management in Shimosuwa teaches us that the areas of cultural or religious importance may sustain significant ecosystem. To ensure this, co-management by multi-leveled actors can be effective. Cultural commons with non-consumptive use can be co-managed by multi-leveled governance scheme using the following ideas.

- (1) Participation of multiple actors (stakeholders) in co-management makes the purpose of the management to be more diverse. In other word, only with multiple sectors involved, it can fulfill the multi-layered ecosystem services. There is a possibility that actors mutually realize the other's needs through the idea of ecosystem services as an interpreter.
- (2) Ensuring the participation of the local people is necessary to embed the adaptive local knowledge into the management. Sustaining of cultural commons should be collaborative governance (Inoue, 2004; 2011) in order to balance the scientific knowledge and the local knowledge.
- (3) A new category of forest management 'Supporting Local Cultural Commons Dependent on the Nature' should be introduced to the government's forestry policy.
- (4) The sacred area must be preserved by collaborative governance. These areas cherished by the local people for long time can be the core area of ecosystem. Any drastic change with a myopic plan in these areas can be damaging and should be reviewed very carefully.
- (5) The actors ultimately responsible for the local cultural commons must be the local people as they will be the ones to inherit this culture and tradition for generations to come. Other actors shall be involved in supportive roles.

Working together in the same forest, for example, the actors will notice the differences in their needs. Even so, the collaborative labor may help to amalgamate them to the same motivation for sustaining cultural commons.

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