

## Characteristics of a Long-Running Citizen-Led Urban Satoyama Conservation Action: A Case Study of “Seki-san’s Forest,” Japan

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**Abstract** The significance of urban forests as sources of rich biodiversity and as valuable green spaces is rising, with the current trend of increasing urban population. The conservation of forests in urban areas is studied through an urban *satoyama* forest in Japan. *Satoyama* is a term used for Japan’s traditional landscape, mainly consisting of secondary forests requiring constant human intervention. In urban areas, *Satoyama* are valuable green spaces, and sustainable citizen participation by the volunteers is crucial for conservation. In this study, a case study is conducted on “Seki-san’s Forest”, a forest located in Matsudo-Shi, Chiba Prefecture, Japan. First, the details of activities and spatial usage at Seki-san’s Forest are studied, summarizing how the space and resources found are utilized for the volunteer group’s activities. Next, interviews are conducted with the volunteer members, clarifying the motivations for participation, and the individual volunteers’ preference of place and activities are categorized into four main reasons. From the study, the factors for sustainable citizen participation at Seki-san’s Forest are identified as the shared motivations, the utilization of space and resources that are favored by volunteers for various reasons, and the structure of the group that enables the actions.

**Keywords.** *Satoyama, Citizen Participation, Perception of Place, Motivation, Sustainability*

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## 1 Introduction

### 1.1 Background

Urban forests are valuable green spaces and sources of rich biodiversity, which is especially important considering the increasing trend of global urban population (United Nations, 2018). *Satoyama* is a traditional Japanese landscape consisting mainly of secondary forests and agricultural lands, currently also acting as valuable forests in urban areas. Historically, the primary usage of *satoyama* was for firewood and fuels, creating a harmonious human-nature relationship between farmers and the forest. However, the management of *satoyama*, which was a necessity for the farmers, is currently replaced by volunteers due to urbanization and change in lifestyles. Still, it is crucial to conserve the forests from abandonment, which will lead to biodiversity loss and a rise in the risk of natural disasters (Jiao et al., 2019). Therefore, the current challenge of *satoyama* is to maintain and increase the number of volunteers for conserving the landscape and culture, and to retain its biodiversity and ecology (Takeuchi et al., 2003).

Regarding the term *Satoyama*, *sato* means ‘village’ and, *yama* means ‘mountain’. While there are several interpretations of the term ‘*Satoyama*,’ this paper will use the definition by Japan’s Ministry of the Environment, defined as an area between urban areas and primeval nature formed mainly from secondary forests around settlements, as used in Morimoto’s research which focused on the historical usage of *Satoyama*’s definition (Morimoto, 2010).

The study is conducted in “*Seki-san’s Forest*” in Matsudo, Chiba Prefecture, Japan. The city of Matsudo underwent rapid urbanization in the 1960s during Japan’s rapid economic growth period, and the forest coverage is currently only 3%. One of the few *satoyama* left in Matsudo is “*Seki-san’s Forest*,” a 2.1ha large forest open to public since 1964. The name of the place comes from the landowner, who also initiated the volunteer group for conservation actions in 1996, which was the first volunteer group for forest conservation in Matsudo. “*Seki-san’s Forest*” is an example of a *satoyama* that survived urbanization and is acclaimed for the volunteer actions such as the protection actions to prevent a roadway from being built through the forest in 2008, and the utilization of the forest by the volunteer group for usage ranging for environmental and cultural preservation, educational use, community activities and more.

This research aims to conduct a detailed study on the citizen participation actions at *Seki-san’s Forest*, as a successful case for a long-running, sustainable *Satoyama* conservation action where the activities has been led by active engagement of citizens, with diverse actions taken place at the site. The research aims to answer the following questions: ‘What are the characteristics of the volunteers and the spatial characters at “*Seki-san’s Forest*” that enables the actions?’ For the case study, first, the spatial characteristics and timeline of the usage of space by the volunteer group is organized, to clarify the characteristics and history of citizen participation. Next, interviews are conducted with individual volunteer participants of the volunteer group, to gain insights into the factors that enables the sustainable actions taken at *Seki-san’s Forest*.

## 2 Literature Reviews

Case studies for *Satoyama* conservation have been done in various situations in Japan through the years. Research on *Sakuragaoka Park* (Kuramoto et al., 2001) studies the volunteering works done by the park, and the demographics of the participants. Research on *Maioka park* (Watanabe et al., 2015). studies the degree of participation of the surrounding communities, studying the reason for the low rate of participation.

Regarding forest volunteers' emotional aspects, study on the psychological impacts (Kouno, 2019) shows that the volunteers have experienced reduced tension and stress while participating in actions.

Regarding Satoyama volunteers' motivation, Oku et al. (2012) compares several volunteer organizations, and analyzed the type of motives behind the group and individual. Regarding the Satoyama volunteers' perception of place, Nagase et al. (2004) used photo projection method to compare forest volunteers and university students' perception of space based on tree types and terrain shapes. Tatsui et al. (2006) researched on volunteer's perception in terms of trees and shrubs before and after logging, and concluded that the expertise knowledge of volunteers affects the perception of different plant types. Studies on Seki-san's Forest includes the one conducted by Kinoshita (2020), which is a report on the overall activities led by the volunteer group, such as the abstract of activities which took place at the site, the road construction process, and the cooperation of the city municipality and the volunteer group during the road construction dispute. Study by Kadota et al. (2011) studied the process of volunteer group in Matsudo, stating that Seki-san's Forest has been the pioneer in forest conservation, and now the Satoyama and forests in Matsudo are managed by the collaboration of public and private sectors.

From the literature reviews, it can be summarized that the citizen participations in Satoyama have been done on the motivations and volunteer groups and individual participants. However, few studies have been done on the activities and spatial perception of Satoyama, and none has linked the spatial characteristics of the activity site with citizen participation actions. Also, there is no in-depth case study of the Seki-san's Forest on its spatial usage and citizen participation. Therefore, the characteristic of this research is in the aim to explore the factors for a sustainable citizen participation in Satoyama through the study of spatial characteristics of the volunteer site and the volunteers' motivations and perception, with the research conducted at Seki-san's Forest where few research have been conducted.

### **3 Research Methods**

#### **3.1 Selection of Research Site**

The research site was selected based on the criteria for site selection, which is as follows:

- 1) With a long history of citizen participation
- 2) Quality of participation is participatory, engagement-based
- 3) Feasible to conduct interviews to organizations and participants

Seki-san's Forest is selected as the research site, based on its history of citizen participation of 26 years, the successful, engagement-based participation in events as a voluntary organization that is mentioned in various literatures (Seki. 2019, Nakamura. 2022), the feasibility to conduct research and interviews on the participants, and the availability of 26 years of annual activity reports to analyze the actions taken by the volunteer group.

#### **3.2 Research Flow**

The research flow is as follows: First, the spatial characteristics and volunteer actions taking place at "Seki-san's Forest," and the timeline of activities is created from the annual activity reports. Second, the landowner and the individual volunteers' motivation for the actions is investigated through semi-structured interviews, with volunteers of a wide range of backgrounds, from newcomers with one year of experience to the founding members with more than 26 years. Third, preferences of place and actions of the volunteers are collected during the interviews, methods referencing past research related to place attachment. The

distribution and classification of the answers are then analyzed.

### 3.3 Research Methods

#### Volunteer Organization’s Annual Reports

The timeline of the actions and the place of actions are identified through the annual reports from 1996 to 2022, provided by the volunteer group. The annual report contains daily records of activities, which allows the tracking of the type of activities taken place each year. The timeline of activity is created by plotting the activities through the years, over the area within the forest.

#### Field Research

Adding to the information gained from the annual reports, in order to gain further insights of the actions and spatial characteristics, participatory observations are conducted on the dates listed on Table-1.

From the participatory observations, the detailed spatial characteristics of the site, and the demographics of the volunteers are obtained. The group holds the gatherings every two weeks, conducting activities with a group of around 25, and detailed meetings held at the bench located in the garden area.

**Table-1.** Dates and Results of Participatory Observation

Date	Research Method	Activities
2022/02/26	Participatory Observation	Plantings, meeting
2022/03/20	Participatory Observation	Flower bed planting
2022/04/17	Participatory Observation	Bamboo shoot harvesting, meeting

#### Interviews

To investigate the motivation for volunteering and preference of place, semi-structured interviews are conducted to the individual volunteers. The questions included the motivation for volunteering, perception of place and stories and episodes of activities and places they like or find memorable. The dates of interviews conducted are shown on Table-2, and the information of the interviewees are shown on Table.4.

In order to facilitate the interviews, the map of the site shown on Figure-2 and 3 were shown to the interviewees, occasionally letting the interviewee to point to specific areas they are referring to, to effectively gain the information on the episodes. The interview was conducted towards 16 members with diverse years of participation, from 1 to 26 years to gain diverse results. The number of target episodes are 80-100, referencing similar studies (Ishihara et al. 2020, Katoh, 2013).

**Table-2.** Dates and Contents of Interviews

Date	Research Method	Interviewee	Content
2022/05/01	Structured Interview	Landowner	On the reason and motivation for the actions
2022/05/15	Semi-Structured Interview	10 volunteer members	Motivation for actions, perception of place
2022/05/22	Semi-Structured Interview	2 volunteer members	Motivation for actions, and perception of place
2022/06/5	Semi-Structured Interview	6 volunteer members	Motivation for actions, and perception of place
2022/06/19	Semi-Structured Interview	6 volunteer members	Motivation for actions, and perception of place

**Table-3.** Information of Interviewees

No.	Gender	Years of experience	Place
1	Male	3	Homestead Forest
2	Male	11	Homestead Forest
3	Male	3	Homestead Forest
4	Male	5	Homestead Forest
5	Male	3	Homestead Forest
6	Male	1	Homestead Forest
7	Female	14	Garden Area
8	Female	20	Garden Area
9	Male	26	Garden Area
10	Male	25	Garden Area
11	Female	14	Garden Area
12	Male	24	Garden Area
13	Male	1	Homestead Forest
14	Female	1	Homestead Forest
15	Female	26	Garden Area
16	Male	18	Garden Area

## 4 Overview of Target Site

### 4.1 Overview of Matsudo-Shi

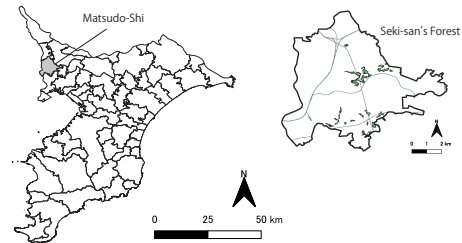
Matsudo-Shi is a city located in Chiba Prefecture, Japan. It is 61.38km<sup>2</sup> in area, with a population of 498,000. The city currently acts as a commuter town to Tokyo, as it is located 20km east of central Tokyo. Historically, the city was mainly used for agriculture, until the rapid urbanization in the 1960s, as Japan entered the era of rapid economic growth. As a result, the area of forest and mountainous area have declined,

which now covers 3% of the whole city (Matsudo-shi, 2021).

#### 4.2 Overview of Seki-san's Forest

Seki-san's forest locates at the Northern part of Matsudo-Shi, shown in Figure-1. The site is 2.1ha in area, which is originally a private property owned by the Seki-family for more than 200 years. The site consists of the Seki-family's private property, and the homestead forest which was donated to the Saitama-prefecture Ecosystem Conservation Society in 1996, to avoid relinquishment due to inheritance tax. Currently, 1.7ha of Seki-san's Forest, including the homestead forest, and the garden is designated as the special green space conservation district in 2013 and 2017, which allows the forest to be preserved permanently.

In 1996, the volunteer group, "Seki-san no Mori wo Hagukumu Kai" is established to manage the donated forest area. The volunteer group now consists of members of 200 more households, with diverse citizen-led activities (Seki, 2019).



**Figure-1.** Location of Seki-san's Forest

#### 4.3 Construction of City Planning Road

Apart from the conservation actions, another aspect of citizen participation is in the protection actions from the construction of City Planning Road No.337. The roadway was first planned in 1964 to be built through the forest, and the city administration conducted an on-site survey on the site, to finalize the plan in 2008. However, after numbers of negotiation between the volunteer group and city administration which developed into a civic movement gaining more than 32,000 petitions, the route of the roadway was opened in 2012. As a result, the roadway was built in a curved manner that the warehouses and garden area of the forest would be protected, although the part of the area was lost during construction.

### 5 Spatial Characteristics of the Site and Timeline of Activities

The spatial characteristics and the timeline of activities are summarized using the annual reports from 1998-2022 provided by the volunteer group. The annual reports contain daily activity reports in which the activities conducted each year are gathered into a timeline.

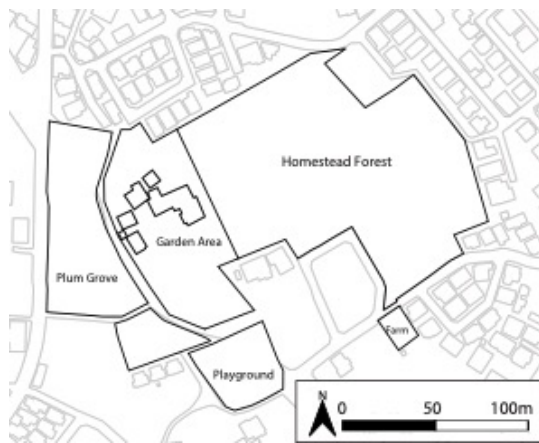
#### 5.1 Spatial Characteristics of the Site

The spatial characteristics and usage of place are identified from the annual reports provided by the volunteer group. The map of Seki-san's Forest before and after the road construction are shown in Figure-2 and 3. The city planning road that opened in 2012 has changed the forest's shape in a way in which the playground was demolished, and the area of the plum grove being reduced. This change in spatial characteristics has led to changes in the type of activities by the volunteer group, which is mentioned in later chapters.

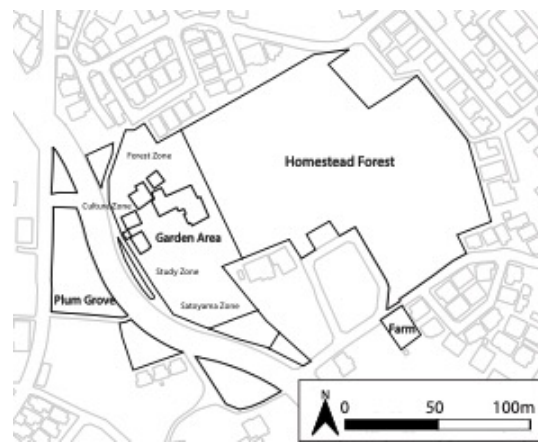
The site is classified into 5 main areas according to its spatial characteristics are listed as follows.

1. The homestead forest
2. Plum grove
3. Playground lost due to road construction

4. The garden area (Further classified as study zone, satoyama zone and forest zone)
5. City Planning Road



**Figure-2.** Map Before Road Construction



**Figure-3.** Map After Road Construction

Next, the details of each main areas, with photos for clarification.

#### 1. Homestead Forest

Opened for public use in 1964. The forest is managed through forest conservation actions led by the working group, utilized for nature observation, educational use for schools. The area consists of a spring water pond, two open spaces with playground equipment, bamboo forest, and walking trail.



**Photo-1.** Open Space



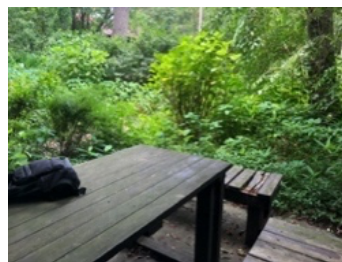
**Photo-2.** Spring Pond

#### 2. Garden Area

The garden area is a private property owned and resided by the Seki-family. The area is further classified into four zones with various usages, in which elements of traditional satoyama can be found within the small space, including secondary forests and historical building. In 2008, the Eco-Museum project started, aiming to preserve the cultural heritages. The maintenance of warehouses and gates is led by the Architecture association, and the ancient documents found in the warehouse are researched by the group.



**Photo-3.** Culture Zone



**Photo-4.** Study Zone



**Photo-5.** Satoyama Zone



### 3. Plum Grove

The plum grove is used for harvesting and selling at the local free market. The group for plum grove management was established in 2008 in which professional support for the maintenance of the plum trees was conducted.



**Photo-6.** Plum Grove

### 4. City Planning Road

The constructed roadway includes planter and flower bed managed by the volunteers. The plants along the guardrails are planted in collaboration with volunteers, local students, and city staff. The maintenance of the plants and flowers are done by a subgroup managing the flower bed.



**Photo-7.** Flower Bed



**Photo-8.** The Roadway

### 5. Playground

The open space was opened for public use in 1964, used by local citizens for activities such as baseball for the children, and gateball and golf for the elderly. The volunteer group held events such as local Festival which featured local musicians. The playground was demolished due to the roadway construction in 2011 and the space currently has no usage.



**Photo-9.** Playground



**Photo-10.** Current State of Area

## 5.2 Timeline of Activities

The timeline on Figure-4 shows the timeline of the citizen participation actions taken at each area at the site. From the timeline, the activities taken place at the site are separated into the following three phases. The timeline shows how the spatial usage has expanded from the original usage, such as the conservation actions, education, harvesting and selling of plums, to more diverse usage such as the utilization of the



cultural buildings and documents, and guided tours and events are held which enables surrounding communities to experience the space and activities taking place at Seki-san’s Forest. One of the characteristics of Seki-san’s Forest is the garden area, which comprises of elements of traditional Satoyama, as the landowner states, is the “traditional scenery of Matsudo”. After the construction of the city planning road, activities have emerged to maintain the green spaces and scenery along the road. The whole of Seki-san’s Forest is currently utilized as new activities emerge in which new sub-groups are created within the group to manage and facilitate the activities.

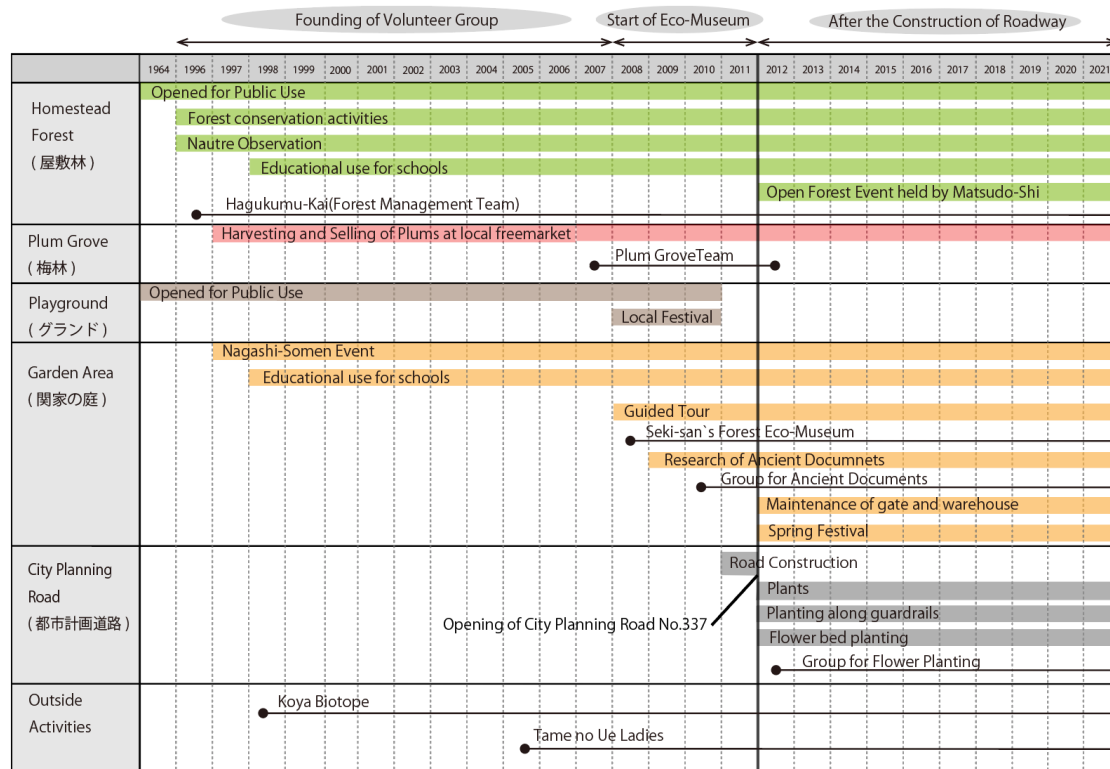


Figure-4. Timeline of Volunteer Activities in each Areas

1996-2008:

From the initiation of the volunteer group, until the planning of the roadway construction in 2008. In the early years of the group, the activities expand from the conservation actions to community activities, and educational use for local students, also expanding the conservation activities outwards. The activities mainly utilize the harvests found at the forest and utilizing the forest with its use as secondary forests.

2008-2011:

Seki-san’s Forest eco-museum project started in 2008, which aims to preserve the cultural heritages found in Seki-san’s Forest. The warehouses are used to exhibit the traditional items including the ancient documents found in the warehouse, and the traditional farm tools for guided tours. The activities related to the cultural aspects of Satoyama has increased.

2012-2022:

Due to the construction of the city planning road No. 337 which cut through in front of the garden, the activities done at the playground is replaced by the activities done along the roadway, including the

plantation of flowers and plants along the guardrail.

## **6 Results**

From the interviews, the motivation of the individual participants, voluntary organization as a whole, and the stories and episodes of activities and place of the volunteers' preference are obtained. The motivations for individual participants are categorized, and the episodes are coded and classified. The episodes of the positive perception of place are coded and classified, then mapped on heat maps. Correspondence analysis is used to analyze the correlation of years of experience to the preference of space and actions. A total of 89 episodes are obtained and classified.

### **6.1 Motivation of Volunteer Leader and the Organization**

The central motivation of the volunteer group is gained from the interview with the landowner and the founder of the volunteer group. The motivation behind the conservation and protection actions for the forest can be understood from the comments such as:

“I want to preserve this 2.1ha of land not only for humans, but also where other species can live in harmony.” “The children nowadays are always playing games and does not go outside. It's better when they go outside, there are places like this. So, we preserve this forest for the children.”

The interview suggests that the main motivation for the actions for the whole organization, and the establishment of the volunteer group is to preserve the biodiversity of the forest, and to preserve the natural open space for local children, which are the driving forces of the founding and running of the volunteer group, the activities including protection and conservation actions, and the events and educational use which invites local children into the forest.

### **6.2 Motivation of Individual Participants**

The motivations behind the conservation actions are shown on Table-5. From the semi-structured interviews, the words related to are classified. The motivations can be categorized into 'environmental protection actions (emphasis on the agreement with Seki family)', 'environmental protection', 'interaction with members and friends', 'exercising', 'pastime after retirement', and 'other reasons.'

While reasons for motivation such as 'agreement with Seki family's motivation' was found mainly by members with 14 or more years of experience, lighter motives such as 'pastime after retirement' and 'exercising' are found in members with lesser experiences. While volunteers with longer experiences tend to have firmer shared motivations, the new volunteer members are introduced to the group with various lighter reasons, which keeps the number of volunteers stable for the conservation actions.

**Table-5.** Motivations of Participants

Motivation	No. (years of experience)	Interview example
Environmental Protection (Agreement with Seki-family's motivation)	5 answers (15,24, 25,15)	"I was drawn the most in the Seki-san's idea on the forest management. Keeping the forest as it is and keeping it for the children."
Environmental Protection	3 answers (26,1,1)	"I wanted to protect the environment. The biggest motivation is to take care of natural environments close to me."
Interaction with Members and Friends	3 answers (3,3,1)	"The motivation now is how I can work and chat with everyone." "I usually work alone at my garden, but it is nice that I can work with my friends"
Exercising	3 answers (3,3,1)	"It also feels good after picking up trash and doing other environmental maintenance around the forest"
Pastime after Retirement	2 answers (3,3)	"There are nothing to do after retirement, and it is suitable for killing time. It's also good for my health."
Other Reasons	2 answers (18,20)	"The way I can see the children's growth, and happy faces."

### 6.3 Volunteers' Perception of Site

From the interviews towards the volunteers, 89 episodes regarding the site and activities have been gathered. Table 6 shows the type of episodes based on the different sites which are coded from the reasons of preference gained from the interviews. The factors in which the volunteer participants have given the particular actions are categorized twice, first into 8 and into 4 main categories, 'interaction with outside community', 'interaction with other volunteer members', 'utilization of Satoyama resources', and 'preference of place.'

The number of episodes referring to the place is shown on the heat map on Figure-5 and the numbers of answers based on the classification from Table-6 is shown on Figure-6. The garden area of Seki-san's Forest has the most answers obtained, with diverse actions and activities taking place, being the central area for interaction and preference. Figure-6 shows the diverse usage and reasons of preference at each area, in which the spatial characteristics at the area are utilized for various, which attracts the volunteer members to join the activities held.

**Table-6.** Coding and Classification of Episodes

Classification 2	Classification 1	Answers	Example of Place	Interview Example
Interaction with Outside Community	Interaction with outside community	15	Plum Grove	I feel connected to the community, including the people who are participating, people coming to harvest and buy the plums.
	Interaction with local children/students	19	Homestead Forest	The kindergarten and primary school students come here, to observe, and play. I like to guide them
			Garden Area (study zone)	The highschoolers came to cook the somen noodles, and they worked a lot, and that was very fun.
Interaction with Other Volunteer Members	Interaction with other volunteers	11	Garden Area (study zone)	I think that the desk there is used for having conversation and communicating with us
Utilization of Satoyama Resources	Harvesting/ Food related	17	Garden Area (study zone)	We have an event where we bake bread from the nuts, and I like that
	Sense of Accomplishment	13	Homestead Forest	We do the cleaning, like cleaning the mud. That is hard work, but I feel a sense of accomplishment after.
Preference of Place	Enjoying the Scenery	5	Homestead Forest	I like the scenery of the tree that bends downwards, and the forest at the back. It's at the open space down there.
	Feeling of comfort	7	Homestead Forest	"I like the pond at the Homestead forest. I like how I can be in touch with nature, and it suits me well. I feel comfort."
	Personal enjoyment/others	2	Garden Area (study zone)	I like to come to this forest, and just sit on this bench, watch the forest, eat lunchboxes, and drinking coffee.



Figure-5. Heat Map of Numbers of Answers Gained

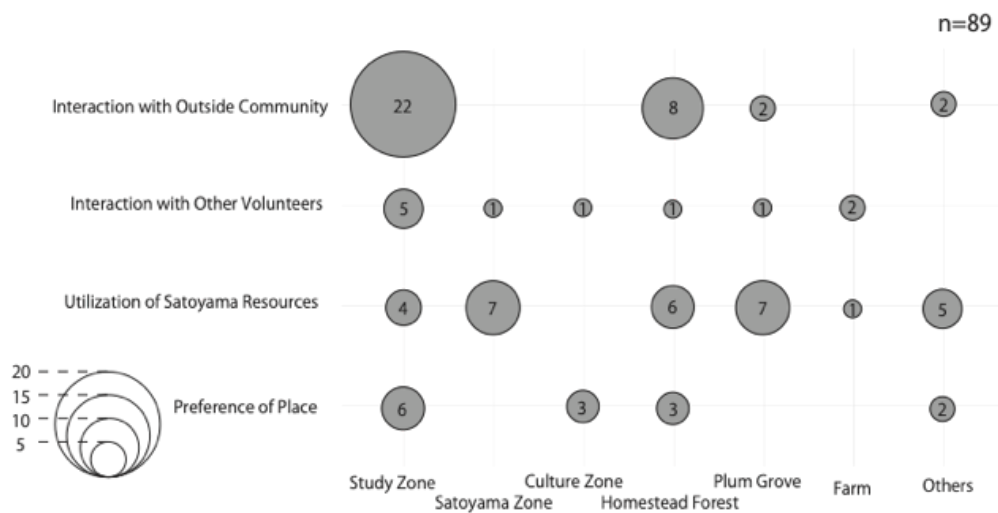
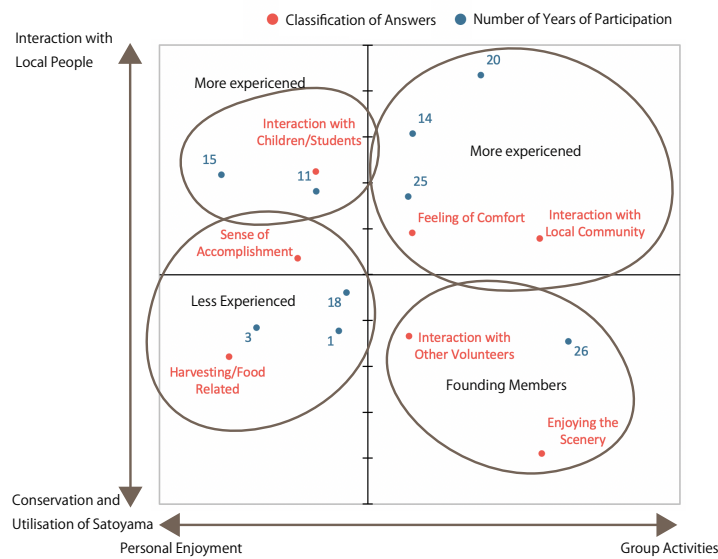


Figure-6. Number of Answers for Each Areas by Classification

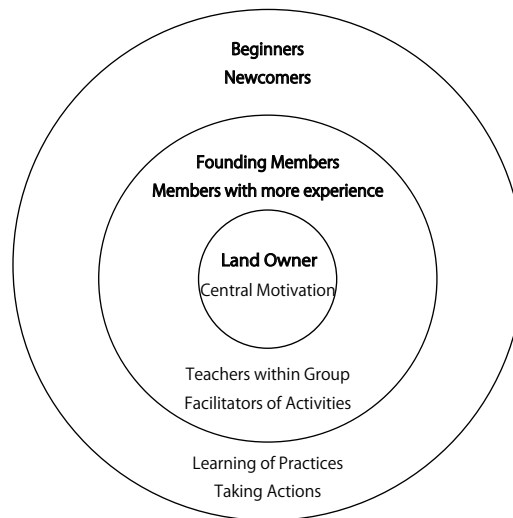
#### 6.4 Difference in Years of Participation of the Volunteers

The difference in perception is shown on Figure-7. Correspondence analysis is conducted with the number of years of experience and classification 1 from Table-6. The x-axis is interpreted as people-oriented activities and conservation activities, and the y-axis interpreted as personal and group activities. From the grouping by the number of years, the ones with lower number of experiences prefers the activities related to conservation actions and personal enjoyment, while ones with more experience enjoys interaction with people, in a group setting. This structure of the group can be analyzed using the concept of legitimate peripheral participation proposed by Lave and Wenger (1991), which categorizes layers of community members, with the beginners on the outer end, and the experts in the core, shown on Figure-8. As the ones with more experience are now becoming the role of teachers for the beginners and facilitators of the activities, which are also apparent from the interview answers by the ones with less experience such as “it’s interesting to learn the knowledge” and “they teach us about the names of the flowers, so it is nice to be

able to learn them”.



**Figure-7.** Correspondence Analysis of the Number of Years of Participation and Classification of Motivations



**Figure-8.** Model of Legitimate Peripheral Participation within the Volunteer Group

## 7 Conclusion

Sustainable citizen participation at "Seki-san's Forest" is attributed to the utilization of space and resources favored by volunteers, the structure of the group with a strong, central motivation, and the education of knowledge of the newcomers that enables the actions. The forest's diverse usage caters to the volunteers' preferences, and those with more experience take on the role of teachers, providing education to newcomers. Overall, "Seki-san's Forest" is a model for sustainable citizen participation and the utilization of resources in public spaces.

The details of activities and timeline of Seki-san’s Forest is organized, clarifying the three phases of

actions, in which the range of activities expanded from the original conservation actions to more diverse actions through the years. Especially, the garden area comprises of the characteristics of traditional Satoyama within a small space, including secondary forests and historical buildings, which acts as the central area for activities with variety of usages. Currently, the whole of Seki-san's Forest is used for public use, utilizing all of its resources, as new sub-groups emerge as the range of activities increase which enables the activities.

From the interviews, the motivation behind the actions is obtained. The strong, central motivation of the landowner is shared within the main members, and for the less experienced, lighter motivations such as recreation become the reason for the new members to participate in the volunteer group.

The preference of place and actions are categorized into 4 categories, and the whole area of Seki-san's Forest is currently being utilized, in which the diverse usage meets the diverse preferences of the volunteers. There is a preference for conservation actions for the ones with less experiences, and the one with more experience acts as teachers, in a structure of legitimate peripheral participation.

Therefore, the factors for the sustainable citizen participation at Seki-san's Forest is that there is a strong central motivation by the leader, the utilization of space and resources that are favored by volunteers for a variety of reasons, and through the structure of the group that enables the actions through education of knowledge and expertise of the newcomers.

This study is conducted through a detailed study on a single case of Seki-san's Forest, and the factors that led to the successful, sustainable actions at Seki-san's Forest can be interpreted as the active utilization of the place, the shared motivation for the landowner and the volunteers, and the diverse utilization of the space. The findings can be applicable in other Satoyama conservation groups with similar backgrounds, such as privately owned urban forests, from the aspects such as the utilization of the resources of Satoyama, and the reliance of the active engagement by the citizens to create new activities and new groups, which leads to new involvement of outside communities, and have new volunteers through education of newcomers. In future research, further studies can be conducted at Seki-san's Forest, such as the perception of the forest by the surrounding citizens and event participants to study its significance for the surrounding communities, as this research only focuses on the volunteers.

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