

1. Regional Profile

Geographical Location	Country and Region	Wajima City, Ishikawa Prefecture, Japan, East Asia												
	Longitude and Latitude	North Latitude 37° 24' 29", East Longitude 139° 24' 29" (Shoganji Temple, Kanakura)												
	Geographical Conditions	<ul style="list-style-type: none"> • Agricultural and mountainous region far from the urban area • Approximately 5 km from the nearest ocean • Approximately 300 km from Tokyo • Approximately 100 km from Kanazawa City (Prefectural Government Office) 												
Natural Environment	Topography and Altitude	<ul style="list-style-type: none"> • Wajima City is located in the northern part of a peninsula. Most of the city's administrative territory is covered with hills and mountains. 												
	Climate	<ul style="list-style-type: none"> • The average annual temperature is about 13°C, and the annual precipitation is about 2,157 mm. • Categorized as Cfa (humid subtropical climate) in accordance with the Koeppen climate classification. 												
	Vegetation and Soil	<ul style="list-style-type: none"> • Approximately 60% of the city's administrative territory is covered with forested mountains, mainly secondary forests of konara oak (<i>Quercus serrata</i>) and planted forests of Japanese cedar trees (<i>Cryptomeria japonica</i>) and Japanese cypress trees (<i>Chamaecyparis obtuse</i>). Rice paddies exist at river-side lowlands and basins. A small urban area exists at the center of Wajima City. • The soil type is the brown forest soil. 												
	Biodiversity and Ecosystem	<ul style="list-style-type: none"> • Not only Wajima City but also the Noto Peninsula still has a significant amount of secondary nature such as secondary forests and rice paddies. The northern part of Noto Peninsula including Wajima City has many agricultural reservoirs providing habitats to diverse organisms. • Many water springs exist at the mountainsides and mountain foets, providing a habitat to an endemic salamander to Japan (<i>Hynobius takedai</i>). The Noto Peninsula, where Wajima City is located, is a major habitat for this species. • There exists a significant amount of secondary nature, mainly terraced rice paddies, which has been developed through long-lasting human interventions in balance with the nature's capacity. It provides habitats to many precious plant species including those on the Japanese Red List of threatened species. • On the other hand, the remote Oku region has experienced the serious decrease and aging of the population in the recent years, resulting in the increasing abandonment of satoyama forests and rice paddies without adequate management. As a result, the decrease of organisms depending on the secondary nature is feared. 												
Social Background	Population and Changes in Population	<ul style="list-style-type: none"> • The population of Wajima City was 57,244 people in 1960. Due to the movement of population to urban areas, the population decreased to 32,823 people in 2005 (approx. 40% decrease in 45 years). 												
	History and Culture	<ul style="list-style-type: none"> • Wajima, facing the Sea of Japan, has a long history of development as a trade port to the Continent and to other parts of Japan from ancient times. • The human settlement of Kanakura is said to date back to the construction of the Kanakura Temple in the year 651. The Buddhist temple brought prosperity to the area since the 1300s. 												
	Regional Economy (Major Industries, Livelihood (including data and forecasts))	<ul style="list-style-type: none"> • The major industries of Wajima City are agriculture, forestry, fishery, lacquer ware manufacturing, and tourism. • The table below shows the number of employees by industry types in 2005. <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Primary Industry (agriculture, forestry and fishery)</td> <td style="text-align: center;">1,896</td> <td style="text-align: center;">15.1%</td> </tr> <tr> <td>Secondary Industry (mining, manufacturing and construction)</td> <td style="text-align: center;">3,772</td> <td style="text-align: center;">30.0%</td> </tr> <tr> <td>Tertiary Industry (commerce, tourism and others)</td> <td style="text-align: center;">6,909</td> <td style="text-align: center;">54.9%</td> </tr> <tr> <td>Total*</td> <td style="text-align: center;">12,577</td> <td style="text-align: center;">100.0%</td> </tr> </table> <p><i>*Note: As the percentages of workers in Primary Industry, Secondary Industry, and Tertiary Industry are rounded off to one decimal place, they may not add up to 100.0%.</i></p>		Primary Industry (agriculture, forestry and fishery)	1,896	15.1%	Secondary Industry (mining, manufacturing and construction)	3,772	30.0%	Tertiary Industry (commerce, tourism and others)	6,909	54.9%	Total*	12,577
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2. Use and Management of Natural Resources in the Region

(1) Use and Management of Natural Resources in the Past and Present

1) Land Use Related to the Use and Management of Natural Resources in the Past and Present

- The total area of Wajima City including the target site is 42,624 ha, of which the forested mountain area covers 32,735 ha (77%) and agricultural land 4,566 ha (11%).
- The remote Noto region (“Okunoto”), where the target site is located, has many undulating hills and low-altitude mountains, most of which are covered with forests. Human settlements and rice paddies are located mostly on flatlands that exist along rivers and coastlines.
- The land is mostly covered with mountains from the inland area to the coastline; nonetheless, many rice paddies are made even on hillsides, producing landscapes of terraced rice fields. In the remote Noto region, there remain many artificially-made agricultural reservoirs, some of which are still in use for rice production.

2) Objectives and Details of the Current Use and Management of Natural Resources

- In agricultural land, rice, vegetables, and fruits are produced for human consumption and livestock is kept at grasslands.
- In forests, timber and edible mushrooms are produced.
- In the marine area from the seacoast area to the offshore area, marine resources such as fish and shellfish are taken.
- There still exist abundant agricultural land and forests. However, the cyclic use of resources in forests and agricultural land, such as the use of the compost coming from the forest in the agricultural land, have decreased significantly.

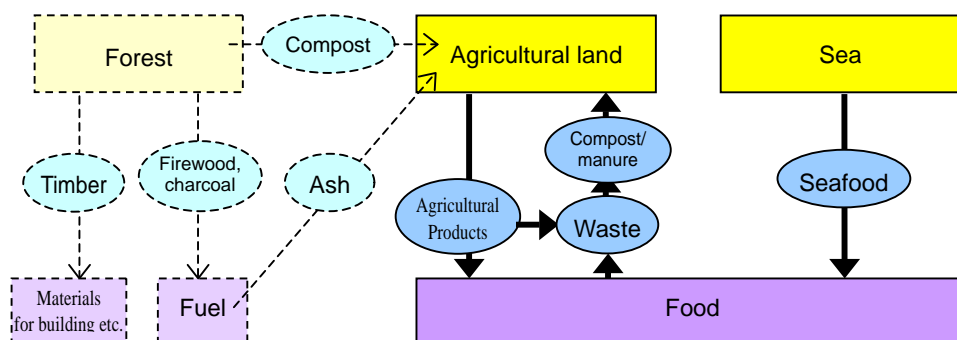


Figure Schematic overview of natural resource uses

(Light colors and broken lines represent that the uses concerned are significantly lower today than before.)

(2) Problems Associated with the Use and Management of Natural Resources and their Impact on Biodiversity

- The depopulation and the aging of the population due to the outflow of the population to large cities have advanced in the recent years in the remote Noto region, where Wajima City is located. More and more coppice woods and rice paddies are left unattended. These areas used to provide important habitats and breeding grounds to wildlife. However, the natural succession of the vegetation progressed due to the lack of management; as the environment changes, they are becoming less and less capable of accommodating a diversity of wildlife.
- For instance, the human settlement at Kanakura, the target site, used to be a large community of 104 households at the largest; however, depopulation has progressed since the mid-1900s and there are only 63 households in the community today. More than 30% of the houses that constitute the village landscape are vacant. In addition, the population is aging; more than half of the residents are aged 65 or older. Under such circumstances, the shortage of manpower for agriculture or forestry has become a serious problem in this area. The future of terraced rice fields that provide the basis of livelihood of the local people and also provide valuable habitats to animals and plants is threatened.

(3) Regional Plans and Other Measures toward a Resolution of the Above Problems

- Ishikawa Prefecture, where the target site is located, has enacted the Ordinance for the Protection and Enhancement of the Environment of Hometown Ishikawa. Ishikawa Prefecture is covered more than 60 % with the satoyama environment composed of areas such as mountainous area, agricultural land, and secondary forests; the conservation and utilization of the satoyama environment is considered to be essential for the environmental conservation and local revitalization. The said ordinance, although not specific to the satoyama environment, is relevant to the conservation of the satoyama environment in Ishikawa Prefecture.
- In addition, Ishikawa Prefecture has set up the Project Team for the Utilization and Conservation of Satoyama in order to facilitate the cross-cutting approach among different departments instead of assigning the task to a single department.

3. Details

(1) Overview

In the Kanakura area of Wajima City, Ishikawa Prefecture, Japan, efforts are being made to promote eco-tourism and sales of products based on local natural landscape and traditional culture by local people, such as the NPO, “Kanakura School”.

In light of the fact that the settlement at Kanakura historically continued to exist by maintaining exchanges with visitors, the Kanakura School is trying to restore the wealth and vitality that the settlement used to enjoy, by attracting visitors from the urban area.

Location	Kanakura Area, Machino Town, Wajima City, Ishikawa Prefecture, Japan
Involved Parties	<p>[Land owner] Local residents (mainly farmers)</p> <p>[Project administrator] NPO Yasuragi no Sato Kanakura School</p> <p>[Survey and research administrator] Kanazawa University</p> <p>[Supporter] Ishikawa Prefecture, private companies, and volunteers</p>
Background and history	<p>[The origin and prosperity of the Kanakura settlement]</p> <ul style="list-style-type: none"> • The settlement at Kanakura is said to have started as a landed estate of a Buddhist temple that prospered in association with the Kanakuraji Temple. • Kanakura produced a large amount of rice from 1300 to 1500 and was one of the wealthiest settlements in the remote Noto region. Kanakura had a Buddhist temple and because the harvested rice was supposed to be offered to the Buddha, strict tax collection was not enforced there. The area prospered together with the Buddhist temple. • Later, after the lord of this region burned down the entire village, people who tried to restore the settlement invited a Buddhist temple from the outside relocate to Kanakura. Because the connection between the temple and the supporting laymen was maintained, people came to Kanakura on the occasion of regular religious lectures at the temple. • As a result, Kanakura was able to maintain its population through exchange with visitors even when the permanent population decreased; Kanakura re-flourished as a central community in the region. <p>[Maintenance of the settlement through internal solidarity]</p> <ul style="list-style-type: none"> • Since local residents have lived in this area sharing the same water system for generations, they are connected with each other in a strong sense of solidarity. They have always participated in community events together. They have also equally shared the burden of maintaining the settlement. • Due to the landform surrounded by mountains, the Kanakura settlement did not have access to much water supply. In the Meiji Period (1868-1912), more than ten reservoirs and tunnels leading to them were constructed for the purposes of water supply for irrigation by means of advanced civil engineering techniques. This project was conducted based on the equal allocation of the burden among the local residents of the settlement. When any reservoir was damaged, the residents of the settlement joined forces as one to repair it. <p>[Kanakura in recent years and the activities of “Kanakura School”]</p> <ul style="list-style-type: none"> • Kanakura remained to be a central community in the region throughout the 1800s and an elementary school and a post office were constructed. However, in the mid-1900s, population outflow to urban areas and the aging of the population progressed. In 1997, Kanakura Elementary School, which had been, both physically and culturally, the center of the settlement, was closed. • Under such circumstances, local residents voluntarily set up a group in 2000 to revitalize the community. They named this group “Kanakura School” with the intention of making this a spiritual center like Kanakura Elementary School. Kanakura School takes advantage of the “internal solidarity” of Kanakura and engages in activities that involve the entire community in order to restore the prosperity of the past by revitalizing the “exchange with outside”, which used to support the community. • Although in the beginning the activities were only conducted by volunteers, it was agreed that all the households in the settlement would participate. The group is currently operating as an NPO, “Yasuragi no Sato Kanakura School”.

Purpose and Purpose and objectives	<ul style="list-style-type: none"> To aim for the independence of the settlement by increasing the visiting population and revitalizing the settlement through the re-evaluation and utilization of local resource and eventually to restore the wealth and prosperity that Kanakura enjoyed in the past.
Main contents	<p>[Policy of the effort]</p> <ul style="list-style-type: none"> The basic policy of Kanakura School is: “all the members are teachers”. The members discuss history, culture, nature, society, health, and daily life by expressing and exchanging opinions and ideas of each member. They have the following three policies with respect to their activities: <ol style="list-style-type: none"> Discover “peaceful community, Kanakura”: Explore origins and legends associated with the current place names. Explore the history of Shinto shrines and Buddhist temples. (Rediscover local resources.) Disseminate “nostalgic hometown tastes” to other areas: <i>Koshihikari</i> (one of the major rice brands) harvested in Kanakura, <i>suwari</i> soup, <i>kogemeshi</i> (burnt rice). (Pass on traditional food culture.) Disseminate “peaceful community, Kanakura”: Introduce Kanakura’s seasonally varying scenic beauty (settlement, the temple compound, etc.), wild plants, flowers, and trees in the mountains. (Pass on traditional landscape.) <p>[Main contents of the effort]</p> <ul style="list-style-type: none"> Research on the history of the local community (study and record-keeping of history, culture, and legend of the community; establishment of the Kanakura Nature and Culture Research Institute). Development of walking paths (installment of signboards, landscape improvement, publication of walking maps etc.). Development of local specialties (development of local specialties such as local rice brand and local sake brand; local menus at a café set up inside the temple compound etc.). Organization of events (Kanakura <i>mantoue</i> (candle-lighting event) to attract people from large cities etc.). Research on the natural environment (research on the biodiversity of the mountains and oceans of the Noto Peninsula.). Cooperation with universities (“<i>Satoyama</i>-stationed researcher system”).
Main achievements	<ul style="list-style-type: none"> Although the area of paddy fields is decreasing, people in this community still continue rice paddy farming. Traditional land uses, landscapes, and life of an agricultural mountain village including the landscape of terraced rice paddies have been inherited in this area. The rich aquatic biota has been preserved today thanks to the long tradition of rice paddy farming. Constructions such as temples that convey the history and culture of Kanakura and intangible heritage such as legends have been passed on through generations up to the present. As mentioned above, the visiting population has increased significantly as efforts to preserve the traditional landscapes and the natural environment as Kanakura’s local assets are being made and a system to receive visitors is being put in place. As many as 8,000 visitors come to this settlement annually, which has a population of about 160 people. Rice is harvested in terraced rice paddies, one of the major elements of the traditional landscape, and its taste has been improved by using traditional methods. Such rice is sold as “brand rice,” and the demand for the rice has increased, helping the preservation of terraced rice paddies as the basis of the wealth of the Kanakura community.



Picture: Shoganji Temple
(one of the Five Temples of Kanakura)



Picture: Open Café (Inside Keiganji Temple, one of the Five Temples of Kanakura)

(2) Details of the Use and Management of Natural Resources from the “Five Perspectives” of the Satoyama Initiative

The table below shows the primary relevance of this case to the five perspectives.

Details are given below the table for the perspectives which have high relevance (items with the “ ” mark in the table).

Five Perspectives	Relevance to this Case	
	Degree of Relevance	Summary of Relevance
1) Resource use within the carrying capacity and resilience of the environment		<ul style="list-style-type: none"> The activities in this area aim to (1) revitalize the community to secure people who will take over the community and increase the demand for terraced rice paddies and (2) pass on the traditional land uses including terraced rice paddies, the basis of wealth, to future generations. The biodiversity survey was carried out mainly on the terraced rice paddies and found a variety of animals and plants inhabits in such areas. <p><i>* Details to follow.</i></p>
2) Cyclic use of natural resources	○	(Nothing in particular)
3) Recognition of the value and importance of local traditions and cultures		<ul style="list-style-type: none"> Kanakura has inherited traditional land uses and landscapes of an agricultural mountain village. In the Kanakura area efforts are being made to promote eco-tourism that focused on history of exchange. <p><i>* Details to follow.</i></p>
4) Natural resource management by various participating and cooperating entities		<ul style="list-style-type: none"> Local historians are assigned as <i>satoyama</i>-stationed researchers in Kanakura by Kanazawa University. They have assisted the study, communication, and transmission of unique history and legends of Kanakura. <p><i>* Details to follow.</i></p>
5) Contributions to local socio-economics		<ul style="list-style-type: none"> Sales of specialty products originated in terraced rice paddies have activated the local industry. As many as 8,000 visitors come to this settlement annually through eco-tourism, which has a population of about 160 people. <p><i>* Details to follow.</i></p>

1) Resource use within the carrying capacity and resilience of the environment

[Succession of sustainable land use that adjusts to natural environment]

- Japan’s climate is warm and characterized by heavy rains. A large area of rice paddies spread on the plains, while in hilly areas and mountainous regions with limited flatlands, terraced paddies are developed on hillsides for rice farming. Around the terraced rice paddies are forests, which people take care of and where they procure the fuel, the compost, materials for building and others.
- Although Kanakura does not have the ample water source, the soil and the climate of the basin that experience large temperature change between summer and winter were suitable for rice farming. Thus,

the local people were able to produce a large amount of rice as the basis of wealth.

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[Evaluation and improvement of biodiversity]

- The resilience of the natural environment is robust in this area. The environment will be covered by a homogeneous vegetation without human control of the natural succession. The reduced use of natural resources in Kanakura left the rice fields and forests that used to be under people's management unattended. The biodiversity is feared to decrease under such conditions.
- Local residents and researchers are aware that the landscape around terraced rice paddies is important also to the organisms. The Satoyama Satoumi Nature School of Kanazawa University surveyed the biodiversity of satoyama and satoumi (marine area used by people as part of daily life) of the Noto Peninsula from fiscal 2006 to 2008 (funded by the Mitsui Environment Fund, hereinafter referred to as "biodiversity survey"). The vegetation and animal distribution at the reservoirs were recorded near Kanakura, chosen as one of the survey locations.
- The biodiversity survey found a variety of plants in human influenced areas with the secondary vegetation such as the terraced rice paddies that cover the major part of the community and the managed grassland around the rice paddies.
- People's activities on the natural environment continued for generations since the establishment of the Kanakura community and the area's original natural forces have created the vegetation of Kanakura where many valuable plants are found. Kanakura School is preserving the ecosystem by maintaining the terraced rice paddies.

3) Recognition of the value and importance of local traditions and cultures

[Succession of traditional land use and management]

- Kanakura has inherited traditional land uses and landscapes of an agricultural mountain village in which rice paddies and the human settlement are located within a small basin surrounded by secondary and artificial forests. Terraced rice fields have played a special role as the basis of the wealth of Kanakura.
- Kanakura is surrounded by mountains and people often suffered from water shortages. Thus, they built a reservoir called "life-sustaining pond" and additional eleven reservoirs that receive water from the life-sustaining pond. These reservoirs are still in use today.

[Eco-tourism that focus on history of exchange]

- Kanakura is a community that has prospered based on rice paddy farming in terraced rice fields while local people receive visitors from outside. The activities of Kanakura School are also based on this system that has sustained the community and aimed to revitalize the community by attracting people from large cities to secure the constant visiting population.
- The interaction with other communities through the connection between Buddhist temples and supporters has also supported Kanakura for centuries. Such interaction is also maintained. The Five Temples of Kanakura currently have about 600 supporting households, which are divided into 12 groups to take turns in assisting monthly lectures.

4) Natural resource management by various participating and cooperating entities

[Cooperation with university Kanazawa University]

- In addition to the participation of every household in the community, Kanakura School is also working with academic institutes. The satoyama-stationed researcher system of Kanazawa University is especially distinctive. This system connects and stimulates the activities of Kanakura School and the research activities of Kanazawa University.
- The satoyama-stationed researcher system is operated to facilitate cooperation between Kanazawa University and the local residents. In this system, people working for satoyama conservation and local revitalization are assigned as satoyama-stationed researchers or satoyama guest researchers/investigators to promote cooperation between the academic and public sectors.
- Researchers work in cooperation with the university including the provision of information about local satoyama activities, suggestions to the university, and exchange of opinions with other researchers.
- The activities of satoyama-stationed researchers are based on the following three principles: (1) “information gathering” to collect requests and suggestions from local residents to utilize them in the university’s research; (2) “information transmission” to utilize the research outcomes that the university has accumulated; and (3) “study session” to deepen the understanding of the principle of cooperation between the academic and public sectors centering on satoyama-related activities and work toward regional improvement and promotion of satoyama studies.
- Local historians are assigned as satoyama-stationed researchers in Kanakura. They have assisted the study, communication, and transmission of unique history and legends of Kanakura.

5) Contributions to local socio-economics

[Activation of industry by making of farm products brand]

- The rice harvested in terraced rice paddies are air-dried in a traditional method called haza-boshi. Although the conventional haza-boshi is time-consuming, it prevents cracks on the rice and over-dehydration and thus improves the flavor.
- Visitors find the rice especially attractive because (1) the rice is harvested in terraced rice paddies, the major element of the traditional landscape of the community, (2) the taste is improved through the use of the traditional method, and (3) the rice is associated with historical background that the Kanakura rice was not taken as land tax around 1300 to 1500 and thus considered to be a rare type of rice that was not available to those outside Kanakura.
- Rice for sake-making is also produced in the terraced rice paddies. The sake produced using the sake rice is sold under the name “Jummaishu Maizokin”.
- Other specialty products originated in terraced rice paddies have also been developed; 16 types of cut mochi (rice cake) and kakimochi (fried rice cake) are produced using the sticky rice harvested in the terraced rice paddies and sold under the name “Ogon Mochi” (golden rice cake).
- The development of specialty products of terraced rice paddies and their advertisement and sales outside Kanakura directly contributes to the preservation of the terraced rice paddies.
- Also, a café named “Ki no Koe” (voice of trees) was opened in the corridor of Keiganji Temple, one of the Five Temples that symbolize Kanakura. The café serves dumplings, pizzas, rice cakes using local vegetables and local ancient rice etc. People who explore the satoyama landscape of Kanakura can also

enjoy the atmosphere of the Buddhist temple in Kanakura as they appreciate the view inside the temple compound that displays seasonal variations and enjoy the café menus. The café also helps increase the demand for locally grown agricultural crops.

[Action and result of eco-tourism]

- Kanakura School transformed the entire Kanakura community as an eco-museum named Yasuragi no Sato (peaceful village). Specifically, they installed information boards to explain local history as well as signs for people who enjoy walking. Also, they improved the landscape in the community by planting azalea and cherry trees. Such efforts have enabled visitors to enjoy walking around the community as they savor the landscape and the local history.
- They are also working to attract visitors by publishing the Kanakura walking map that features the Five Temples of Kanakura, legends associated with Kanakura, and model walking courses so that visitors can enjoy history, culture, nature, and landscape of Kanakura.
- As a result of the great efforts, approximately 8,000 visitors come to Kanakura, whose population is only about 160 people. The visiting population is actually increasing.

End