

# Exploring Tourism Potential of Agricultural Heritage SystemsA: Case Study of the Kunisaki Peninsula, Oita Prefecture, Japan

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Received: August 20, 2013 Accepted: September 22, 2013 Published: October 25, 2013

doi:10.5296/iss.v1i1.4465

URL: <http://dx.doi.org/10.5296/iss.v1i1.4465>

## Abstract

This paper analyzes the tourism potential of agricultural heritage landscapes for regional revitalization through a case study of the Kunisaki Peninsula in Oita, Japan. Recently, the concept of agroecosystems has emerged as a holistic approach for conserving dynamic agri-heritage landscapes that has sustained the human societies for millennia. The FAO initiative of Globally Important Agricultural Heritage Systems (GIAHS) is one of the leading initiatives for dynamic conservation of these landscapes. The Kunisaki peninsula was nominated as a GIAHS for its traditional resource circulation landscape earlier in 2013. The peninsula used to be a religious and cultural hub in historical times, but the area is currently facing rapid decline mainly due to depopulation and aging. This research explores the potential of agri-heritage tourism in the peninsula, by analyzing the components of the resource circulation landscape, and the importance of cultural heritage. The research is based on in-depth fieldwork in the designated site, and on an extensive review of literature. The key findings are: the resource circulation landscape of this GIAHS site can be divided into ‘core’ and ‘value-added’ components, core components being small scale interlinked ‘tameike’ reservoirs and sawtooth Oak forests, and the endemic shichitoui grass and shiitake mushroom are value added products. These social ecological production landscapes are underutilized, and if agri-tourism is properly planned at the site, it can generate renewed stakeholder interest in these landscapes, and thus pave the way for revitalizing this declining region, which has immense value as a low-carbon, sustainable rural society based on traditional farming knowledge.

**Keywords:** agricultural heritage landscape, agri-tourism, integration, resource-circulation, cultural landscape, GIAHS, Kunisaki Peninsula, Japan

## 1. Introduction: Agroecosystems and Agricultural Heritage Landscapes

Agriculture has sustained historic and contemporary civilizations across several millennia, and the agricultural landscape is considered vital for continued sustenance of the human civilization (Harlan, 2008). During the last one hundred years or so, however, agricultural production systems across the world have undergone a marked decline. High speed urban growth, offer of lucrative jobs for the young generation in cities and increased dependence on the global market for the provision of food (Oosterveer and Sonnenfeld, 2011) are some major drivers behind the decline of agriculture. During the later years of the twentieth century, efforts to re-evaluate agricultural heritage systems began, as concepts like ‘limits to growth’ (Meadows, 1972, Meadows et al., 2004) and sustainable food production (Lichtfouse et al. 2011) became focal issues. This re-evaluation of agriculture as an ecological system that sustains a large number of flora and fauna, microbes and insects, as well as the human population is an ongoing process. A notable development has been to see agriculture in more holistic terms, as ‘agroecosystem’ (Gliessman, 2000). The emergence of ‘Agroecology’ as a discipline enjoyed three ‘phases’ since the 1970s, ‘expansion’, ‘consolidation’ and emergence of ‘new dimensions’ (Wezel and Jauneau, 2011). Wezel and Jauneau (2011) divides agroecology into three diverse ‘interpretations’: ‘scientific discipline’, ‘movement’ and ‘practice’ involving field based approach to evaluate food systems, concepts of rural development, and evaluation of techniques for sustainable agriculture, respectively. The authors also observe that the domain of nature-conservation has increasingly become a dominant one in agroecosystem science, and that perspectives like agroecosystem management, rural development, and sociological and anthropological research have gained momentum since the 2000s. A prominent approach in agroecosystem studies is the ‘landscape perspective’ that allows analysis of intertwined processes operating over a large spatial area (Altieri, 1999). The relationship between local communities and the landscape, and especially, the role of ‘traditional knowledge’ in managing agroecosystems have been recognized as vital in this sense (Flora, 2001).

The Globally Important Agricultural Heritage Systems (GIAHS) is an initiative by the Food and Agriculture Association (FAO) of the United Nations. This initiative seeks to combine knowledge from all three perspectives of science, movement and practice for ‘dynamic conservation of all agricultural heritage systems, and their multitude of goods and services, for food and livelihoods security, now and for future generations’ (FAO, GIAHS HP, n.d.). GIAHS sites are based on some typical agricultural systems, which are: rice-based, maize and other root crop based, taro-based, nomadic and semi nomadic pastoral systems, irrigation-soil-water management based, complex multilayered homegardens and hunting-gathering systems (Koochafkan, 2009). Two central themes of the GIAHS initiative are: the ‘locally adapted’ agricultural techniques, and the ‘profound relationship’ of local agricultural communities with nature. Integration of insider communities and outside stakeholders through agriculture heritage tourism has generated much scholarly interest in recent years. Weizenegger and Wezel (2011) describe how tourism is evolving as a main pillar of regional revitalization for rural agricultural villages in Europe through a case study of the Allgau village in Germany. Wezel and Jauneau (2011) also describe the case of the

Vercors Regional Park in France, where initiatives such as selling agricultural products directly to visitors and promotion of local cuisine has gained prominence. Particularly, nature based tourism and ecotourism are recognized as important vehicles for integrating agriculture and nature conservation (Campbell and Lopez-Ortiz, 2011).

This paper analyzes the potential of integrating tourism and nature conservation at Kunisaki Peninsula in Oita Prefecture in Japan, which became a GIAHS in June, 2013. The unique feature of Kunisaki is that the system was recognized as an ‘integrated system’ of agriculture, forestry and water management system a key part of which is the circulation of natural resources between mountains and seas. The core of local agriculture is rice, but of particular importance are products like the shiitake mushroom produced in the deciduous Sawtooth Oak (Kunugi) forests and a special type of mat-weaving straw (shichitoui). Another prominent feature of the area is the famous religious-cultural landscape, Kunisaki used to be a hub of Buddhist religious activities in historical times, and the syncretic tradition of fusing animistic Shinto beliefs and Buddhist philosophy originating from this area shaped the thinking of noted Confucian scholar Miura baien (Barnhill and Gottlieb, 2001). However, the area is threatened by rapid aging and depopulation, and decline of local agricultural practices in recent years. It is in this sense that developing a tourism-based revitalization strategy utilizing the agricultural systems and cultural landscapes is particularly important for this region.

## **2. Methodology**

This paper is the outcome of 6 months of intensive field and desk research on the Kunisaki Peninsula in Oita, Japan, which the author conducted with local collaborators such as Oita Prefectural Office, the Oita GIAHS Promotion Council, and members of the local communities. A qualitative framework was used for this exploratory study, with interviews, focus group discussions, direct observations and field visits as the main components of data collection. In addition, a large amount of data from historical records and previous research compilations available at the Oita Prefecture Archives was analyzed. This research utilizes the sustainable livelihoods approach. It assess natural, social, economic and human capitals of Kunisaki to explore potentials for tourism development (DFID, 1999). Although tourism is not the main application of these capitals this study will explore the role of tourism in revitalization of agriculture heritage and conservation of natural resources considering the designation of Kunisaki peninsula as GIAHS and the potential for tourism.

## **3. Kunisaki: An Outline of the Area and the Landscape**

The Kunisaki Peninsula is situated to the Northeast of the Southernmost main island of the Japanese archipelago, Kyushu and at the northwestern rim of Oita Prefecture.

On the map, Kunisaki is a paw-shaped piece of land jutting out into the sea, located at the Northwestern rim of Oita Prefecture. It is surrounded by waters on three sides, Beppu Bay to the South, Iyonada to the East and Suônada to the north. All of these three water bodies are parts of the Seto Inland Sea. The peninsula is narrow, and mostly mountainous: its north-south extension is 39 km and east-west extension is 30 km (Senda, 1983). The peninsula is shaped by gentle mountain ranges radiating from the 721m tall Mount Futago,

located at the center of the paw-shaped land, and by the numerous short and swift rivers that gush out of these mountains and flow into the seas on the three sides. Most mountains are 500-600 m in height, and are results of volcanic activity in the past. A particularly active period in the formation of the landscape is dated back to 800,000 years ago, where a series of eruptions known as Hohi Volcanic Eruptions gave rise to many of low volcanic mountains that dot the landscape with Mount Futago (721 m) at the center we see in Kunisaki today. Highly porous volcanic soil is the predominant soil type. The landscape is characterized by short, rapid rivers, deep ravines and narrow valleys. Due to its location at the rim of Kyushu and proximity to the Seto Inland Sea, the peninsula enjoys a mix of climatic patterns. Kunisaki is located within the West Japan climatic zone, but influences of Seto Inland Sea Climate Zone, Kyushu Climate Zone, Outer Japan Climate Zone and Inner Japan Climate Zone are observable in varying degrees according to locations within this peninsula (Sekiguchi, 1959; Kawanishi, 1977; Kawanishi and Kudo, 1983). Average annual rainfall is 1570 mm, which ranges from below 1400 mm in the western part around the Bungotakada City to above 1600 mm in the eastern part of the peninsula. In summer days, temperatures climb above 30 C in many places but in winter snowfall is rare except in places with high altitude.

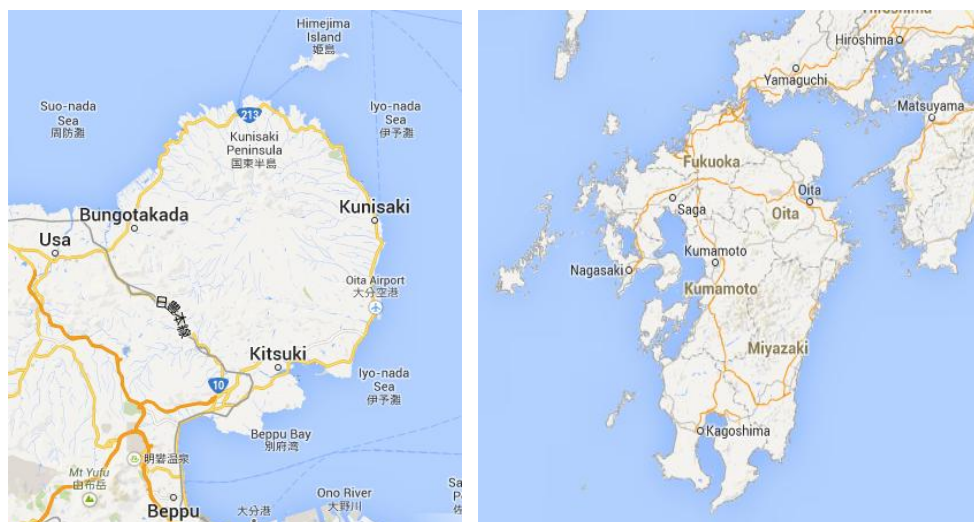


Figure 1. Location of Kunisaki Peninsula in Oita (source Google maps)

A mixture of landscape, climatic and settlement patterns mainly the high seasonal variance in precipitation and the porous volcanic soil that absorbs water quickly led to the development of a unique and dynamic traditional water management system in the peninsula through the creation and maintenance of multiple tameike reservoirs (Note 1) in the valleys of the short and rapid watercourses that crisscross the peninsula. Wet rice cultivation was central to the spread of agriculture and sedentary societies in the peninsula, which began as far back as the Yayoi Period (300BC-AD300). Remnants of farming villages with the first rice farming communities dating back to some 1800 years have been found in the Tabuka River valley (Yayoi no Mura, HP, n.d. ).

Although ancient rice fields with over 1300 years history of sustainable rice farming such as the ancient Tashibu Manor rice fields are famous, a sophisticated system of tameike reservoirs appeared much later, and reached a peak during the pre-modern Edo Period (1603-1868). Although such ponds are observable throughout Japan, Kunisaki offers a remarkable density of tameike ponds, and the location of these ponds ensure that they manage the circulation of resources from mountains to the seas, by acting like valves on the waterways of the area. This intricate, complex and dynamic resource circulation system has been managed over centuries through traditional knowledge and has created an array of secondary nature landscapes high in production and biodiversity values. The farming of shiitake mushrooms as a special, value added local product is a unique type of agriculture that partially utilizes by the tameike system. A special type of secondary forest of Japanese Sawtooth Oak or Kunugi (*Quercus acutissima*) is utilized to grow the mushroom in this area. The high density of this deciduous forest type also plays a crucial positive role in groundwater retention, soil replenishment, and supports a variety of species and ecosystem services. A rare type of straw called Shichitoui, cultivated in the Aki area of Kunisaki, is used to prepare high quality mats. Kunisaki is the only location where this weaving culture exists at present date. For the GIAHS, the secondary forests of Kunugi Oak and the tameike reservoir system were identified as ‘core’ landscape features, and shiitake and shichitoui agriculture were identified as key agricultural practices. These core landscapes and key agricultural practices combine to create the unique agricultural ‘heritage’ that has a global significance: agriculture based on the circulation of natural resources from the mountains to the seas. The tameike reservoirs are the most tangible form of this ‘heritage’ as without them, not only the secondary forests of Kunugi Oak and Shiitake farming but also wet rice farming could not have spread in Kunisaki. This eco-friendly technique of traditional water management and natural material flow has another great historical and contemporary significance; as the tameikes themselves are biodiversity hotspots. This highly complex and dynamic system has its core is based on the concept of society’s co-evolution with nature.



Figure 2. Shichitoui agriculture (photo by author)

Though Kunisaki today is a rather secluded place, a ‘peripheral’ area threatened by advanced

aging and depopulation of its farming communities it has much historical and cultural significance. Kunisaki was central to the flowering of the Buddhist culture, beginning from 7<sup>th</sup> century AD. A central figure is the legendary monk Ninmon (Note 2), who is credited with the formation of a farming and religious community. The term Rokugo-manzan is used to refer collectively to the fusion of Shinto and Buddhist beliefs, worshipping of mountain spirits and creating stone carvings of Buddha at the same time, various rituals associated with the seasons and harvest and ancient pilgrimage routes that stretched from the coastal areas to the deep interiors of the mountain valleys. About 50% of all stone carvings of Buddha in Japan are found in Kunisaki. Several temples of the area are recognized as national Cultural Treasures, as is the main Shinto shrine of the area, the Usa Hachiman-gu.

### **3. Tourism Attractions of Kunisaki**

Tourism attractions of Kunisaki can be classified into two main types: natural and cultural. The natural attractions center around the agricultural and forested landscapes, and they are comparatively underused. The majority of tourists visiting this area come to see the cultural relics most famous of which are the Usa Hachiman Shrine, the Fukiji, Futago-ji and Makiodo Temples, the Kuma-no-Magaibutsu stone carving and the Showa-no-machi Town (Note 3) in Bungotakada City. As referred to earlier, most of these cultural relics (with the exception of the Showa-no-machi) are also deeply related with resource circulation and agricultural societies. The Usa Hachiman-shrine, in particular, used to be the center of authority during the feudal times, and together with its patron temple, the Mirokuji, the shrine priests promoted rice farming and conversion of wild mountain landscapes into rice paddies during the middle ages. A prominent example of their initiatives is the Tashibu manor (Tashibu-no-sho): a group of scenic rice terraces situated at the foothills of gentle mountains, and sustained by waters of the Osaki River. Such managed landscapes have more than a thousand years of history. In addition, the landscape offers excellent examples of fusion of local animistic beliefs with Buddhist philosophy, this fusion probably took place around the 7-8<sup>th</sup> centuries AD, and became a key feature of Kunisaki. The combined beliefs are key in opening up mountain areas for cultivation, and at the same time, retained the divinity of these landscapes with their patron Shinto deities featuring prominently in the daily lives of the local farming societies. Even today, there are a number of festivals like the Shujo-onie and Mineiri, which embody this tradition.

### **4. Natural Tourism Attractions of Kunisaki**

The main attraction for agri-tourism is the Kunisaki landscape itself. The landscape embodies a culture of resource circulation, through several components like the tameike reservoirs, the Kunugi Oak forests, the shichitoui grass fields and the coastal landscapes. FAO also recognized the 'integrated' nature of these landscapes which together make Kunisaki an excellent example of a social ecological production landscape. In other words, the main tourism capital of Kunisaki is the peninsula itself, which is more than the sum total of its specific components. Agri-tourism (Sidali et al., 2011), or more specifically, agricultural heritage tourism, is based on 'experiencing' the landscape and local culture (Vafadari, 2012) in this sense, the attractions are much more diffuse in nature than conventional tourist

attractions like monuments or historical ruins. Typically GIAHS tourism capitals are associated with the landscape, and local lifestyle for the aim of GIAHS tourism is to be educated about the resilience of local societies and the functional components of socio-ecological production landscapes.

**Tameike Reservoirs:** Tameike in Japan has a very long history, the oldest such ponds were dated back to the Kofun Period (i.e. 300-700 AD) (Uchida, 2003), but several researchers have pointed out the possibility that tameike systems were already developed during transition period between Yayoi and Kofun eras (250-538), when wet-rice cultivation arrived in Japan. This shows that the origin of the tameike system dates back to the spread of wet rice cultivation itself. Tameike reservoirs formed a central part of rice paddy cultivation, flood control and also sustenance of indigenous species in pre-modern Japan. However, like many other forms of indigenous knowledge systems, the tameike system began to decline after modernization and economic growth became the main agenda of the country, in the post Meiji Restoration (1867) period. The peak of the decline arrived during the bubble growth period: a Ministry of Agriculture Forestry and Fisheries (MAFF) survey clarified a picture of drastic decline in the numbers between 1979 and 1989 (Uchida, 2003). In the case of Kunisaki, the total number of tameikes stands at nearly 2000 now, which is nearly 30% of the peak period, where a total of over 6000 such ponds existed.



Figure 3. A typical tameike reservoir (photo by author)

The Kunisaki tameike system, in this sense: it has nourished the peninsula for hundreds of years, and is inextricably linked to the social and cultural heritage of the area. This system represents society's symbiotic relationship with nature, and governance of natural resources through traditional techniques. Tameike water for Kunisaki has been indispensable, especially for cultivating rice. Among the several varieties of rice supported by tameike irrigation are: Hinohikari, Koshihikari, Hitomebore and Tsuyahime. In addition, glutinous rice varieties like Hyokumochi and Hakutomochi, and the Oita Mitsui which is popularly used for sake brewing are grown in the area. Three ancient rice types: Akakome, Kurogome and Midori kome are



supported by agriculture using tameike waters. Rice fields in Kunisaki are typically small, and many of them are located at steep angles from the river bed, hence tameike water has been indispensable for growing rice in the peninsula. Out of the total area of 27,000 ha of these water bodies in Kunisaki, Kunisaki City itself has the largest share: at 8442.5 ha, followed by Usa (6209.8 ha) and Kitsuki (6078.6 ha). As far as the distribution of tameike irrigated lands in the cities and towns is concerned, Usa City occupies the largest share at 3900.4 ha. Followed by Kunisaki City (2494.2 ha) and Kitsuki (2473.2 ha.). As many as 8434 households of farmers depend on these reservoirs in Kunisaki City.

**Kunugi Forests And Shiitake:** The Kunugi, or the Japanese Sawtooth Oak (*Quercus acutissima*), is key species found in the traditional satoyama landscapes of Japan (Takeuchi, 2001). This deciduous variety is particularly important for shiitake mushroom farming, which is a major form of agricultural production in Oita. Oita produces about 35% of the total output of dried shiitake in the country. The Kunugi forests of Kunisaki, therefore, represent a special type of secondary forest, and a socio-ecological production landscape. Kunugi Oka trees are cut off from the stem after 15 years of growth, and sliced into small pieces which act as platforms for growing the shiitake mushroom. The wood then decays naturally on the forest floor, adding nutrition to the soil and sustaining the next generation of vegetation growth. New shoots come out in the Kunugi trunk, and the coppiced forest grows back in a 15 year cycle. A piece of trunk can be used for 5 years for mushroom growing. Traditional farmers carefully calculated these timings and maintained a stable forest cover. This forest landscape is a unique and innovative way of managing resource circulation and managing natural environment and production landscape within the same space. Through this technique, a stable forest cover is always maintained, which acts as a carbon sink in the locality. The kunugi forest is also related with the tameike reservoirs, as the water is sometimes used for watering the mushroom crop, and concentrations of kunugi oak forests are commonly found around the reservoirs. Shiitake farming continues to provide robust livelihood support: a local farmer who owns about 8 hectares of shiitake forest told that he earns 20 million yen a year from selling his produces. Shiitake also has clear tourist potential, high-priced brands such as the Ko-ko and Chabana-donko are sold regularly in local souvenir shops.



Figure 4. Kunugi forest and logs for shiitake mushroom farming (photo by author)

**Himeshima Island:** Located 6 kilometers to the North off the Imi Port of Kunisaki City, Himeshima is a small island of an area of 6.87 km<sup>2</sup>. The island was created due to volcanic eruptions that took place 200,000 years ago, and today, it is being promoted as a potential ‘geopark’ to attract tourists interested in natural landscapes. The ‘Kokuyoseki’ a special type of rock formed out of the intense eruptions, can be seen along the coast. Several rare types of rock strata, which can be seen just by walking along the island coast—are now being promoted as potential ‘geo-sites’, and the Himeshima island is being projected as a museum of geological landforms by the Oita Prefecture government. A beautiful local butterfly species, locally known as the Asagimadara (Chestnut Tiger or *Parantica sita*) is another major tourist attraction.



Figure 5. Himeshima (photo by author)



Figure 6. The Himeshima butterfly (photo by author)

## 5. The Cultural Landscape

**Rokugo Manzan:** In the ancient times, societies in Kunisaki were divided into 2 major lines: the Northeast centered around the highlands near Mount Futago, and the Southeast which mainly comprised of alluvial plains created by rivers in the Tashibu, Buzen and Aki areas

(Nishi Befu, 1983). An important event for the agricultural settlements in the peninsula was the opening up of the mountains, this is thought to have taken place in the 8<sup>th</sup> century AD. According to local folklores, the legendary Buddhist monk Ninmon Bosatsu carried out a long pilgrimage through the mountains, and drove away evil spirits from the land. Subsequently, the mountains were opened up for rice cultivation.

A key feature of the local religious culture is the fusion of local animistic beliefs with Buddhist philosophy. The local animistic belief is known as ‘Sangaku-shinkô’. This cultural tradition regarded mountains as divine entities. Thus, understanding of natural resource circulation was present in local communities from an early period in history. A key religious ritual that is associated with the legend of Ninmon, and celebrates the links between farming societies and wild nature of the mountains is the ‘Rokugo-manzan’. It is said that Ninmon created 69000 stone carvings of Buddha and Buddhist mythological characters in around 718 AD, although there are doubts about whether Ninmon was a real person, a myth, or the collective name of a group of monks. Since the latter half of the 5<sup>th</sup> century AD, the Usa Hachiman-gu gradually took over as the center of religious activities in the peninsula. The practice became institutionalized in 1113 AD, when the historical settlements of Musashi, Kunawa, Kunisaki, Tashibu, Aki, and Imi became the core areas associated with Rokugô manzan. By 1113, clear evidences of agricultural activities associated with Rokugô manzan emerge. It is said that in that year, a monk called Gyôgen created rice paddies in an area called the Daimajo (literally meaning ‘land of trouble’) and this agricultural site became an important source of sustenance for the local communities. The word daima-jo hints at the fact that opening up mountain valleys for farming in Kunisaki was not simple, and required special knowledge about the place. This can be cited as an early recognition of the importance of the local resource circulation. The temples and shrines associated with Rokugô manzan were the center of local lives in ancient times: they enjoyed their peak during 12<sup>th</sup>-13<sup>th</sup> centuries AD. In the post-14<sup>th</sup> century AD era, some of the original praying sites were abandoned. Eventually, during the consolidation of the central rule during the do period, the Rokugô manzan were de-linked from local village lives. Today a total of 33 temples known as ‘Kunisaki Rokugô Manzan Reijô’ still exist, and along with the Usa Jingu, they form the body of this ancient cultural practice.

## 6. Religious-Cultural Festivals

A number of cultural festivities are observed in the peninsula, which are notable tourist attractions. In recent years, the continuity of these traditional events has come under question due to depopulation and aging, but they remain important for the cultural identity of the local residents. These festivals are also the main attractions for the younger people from the peninsula, who work outside, to return to their birthplace several times a year. Some major festivities are described below:

**Shujoonie:** A notable festival is the ritual to drive away the evil spirit from the mountains in the beginning of the year, known as the Shujônîe. Fires are lit to drive away the dark and the evil from the mountains in a ritual that has a history of over 1200 years. The festival is dated back to the activities of Ninmon, who started this practice and continued it from 717 to 724

AD. Historically, the festival took place in as many as 65 temples and pilgrimage sites across the peninsula, but today, only three temples maintain this tradition. These are: the Iwatoji, the Jôbutsuji and the Tennenji temples. The practice is recognized as one of the 'Important Formless Ethnic Traditions' of the country.

**Mineiri:** An important cultural festivity associated with the Rokugômanzan is the ancient ritual of Mineiri. This ritual also dates back to the same times as Shujônie, and is associated with the same legendary monk Ninmon Bosatsu. It is said that Ninmon travelled across the mountains and vales of the peninsula from 717 to 724 AD, and the Mineiri ritual traces back his pilgrimage route to offer respect to the body of knowledge and philosophy Ninmon is said to have created. During the Edo period (1603-1868) this practice too suffered isolation, and it was in 1959 when the practice was re-started. However, there are long gaps between Mineiri rituals in the recent times. The last two occasions were held in 2000 and 2010. During the 2010 occasions, monks performing the roles of pilgrims began a journey from the Omotesan in Usa city area, before proceeding to the Kumano-magaibutsu in Bungotakada City, and traveled through the ancient pilgrimage sites before converging in the Futago-ji temple in Kunisaki City. The total length of the pilgrimage was around 150 kilometers. Mine-iri is also founded upon the philosophy that steep, harsh mountains retain the sources of sustenance for human societies, and that human beings must be careful and respectful to nature, and must understand its rhythms and cultivate a section of the natural landscape. Like the Shujônie, here we also see the central importance of circulation, or cycle, which the pilgrims experience through their walk. Some other prominent festivals of the area are:

**Kebesu Odori:** The origin of this ancient festival is dated back variously, to 1100 years or 600 years. Held at Kunimi Town area of Kunisaki City, this festival involves local residents and features ancient cultural patterns. This festival recaptures the culture of Rokugo Manzan, although the precise origins are not known. Kebesu Odori commemorates prosperity and health, and is regularly held on 14 October.

**Yoshihirogaku:** This festival features 49 dancers dressed in Warring States Period (Sengoku Jidai) costumes and beating drums. The festival is listed as a Nationally Important Formless Cultural Property, and commemorates prosperity and victory.

**Musashi Oide matsuri:** This festival is held in autumn to celebrate the autumnal harvest. Held at Musashi Town, it features exhibitions of local farming and marine harvesting products. A large number of local residents and children also take part, and hold cultural performances. The festival is very closely related to local agricultural life.

**Akane Senjo O Matsuri:** This old festival commemorates safety and good health for local communities. It features lighting of fires and dancing. This is held at Kunimi Town area of Kunisaki and is said to have originated 230 years ago.



Figure 7. Kebesu Odori festival (source Oita Prefecture)

Apart from these rituals, which are now becoming increasingly rarer and difficult to observe, a number of cultural relics are readily found by the visitor in the Kunisaki landscape. Many of the 69000 legendary stone carvings remain, with other sculptures and arts created in subsequent years. A special feature is the presence of towers showing pilgrimage routes, position of temples and the cosmo-vision of ancient societies.

### 7. Cultural Landscapes/ Practices



Figure 8. Usa Hachiman Shrine (Source Usa City)

**Usa Jingu:** The Usa Hachiman gu shrine, popularly known as the Usa Jingu, is among the

most prominent shrines of Kyushu. This shrine is designated as a national treasure (kokuho) by the Bureau (Sub-ministry) of Culture of the national government. The shrine is named after the legendary Emperor Ojin, who was deified as Hachiman-jin. The shrine was built during the Nara Period (8th century AD). It is known that in 749 AD, a Mikoshi carrying the spirit of Hachiman went from this place to Nara. Today, Usa Jingu is central to local cultural rituals, and auspicious occasions like traditional weddings, or opening of business. A prominent festival in this shrine is the Hojô-e: which features releasing of birds. Usa Jingu is also known for its characteristic architecture, which makes use of a special type of construction known as Hachiman-zukuri.

**Futago-ji temple:** This temple is located in the central part of the peninsula, and is associated with the legend of Ninmon Bosatsu. The temple is known for its towers, which are most archetypal of the towers that can be observed throughout the peninsula. It is also a popular tourist destination.

**Monjusenji Temple:** this temple is located on the second tallest mountain of Kunisaki, and situated at an altitude of 616 m. the temple houses a sculpture dating back from 1379. The surrounding natural forest was selected as one of the '100 Beautiful Vistas to be Conserved' by Asahi Shimbun.

**Makiôdô Temple:** Situated at the foothills of mountains, this old temple overlooks rice paddy landscapes. Apart from having Buddha statues, the temple also houses a number of towers, and other stone carved sculptures.

**Fukiji Temple:** the Fukiji temple is associated with the Motoyama sect, which traditionally engaged in studies of nature and philosophical pursuit. The legend of this temple is traced back to Ninmon. The main pavilion is the oldest structure using kaya wood in Kyushu, dating back from the late Heian Era. Fukiji Ôdô is recognized as a national treasure (kokuho). The surroundings of this temple is known for its diverse natural forest cover, including the towering 100 year plus old Gingko trees that guard the entrance to the pavilion.

**Kuma-no- Magaibustu:** Kuma-no-Magaibustu is a pair of two Buddha carvings: the 8.07 m tall Fudô Myôdô (or the 'Angry Buddha') and the 6.82 m tall Dainichi Nyorai (The 'Great Sun Buddha'). The site is recognized as an important cultural treasure. The carvings are atop a mountain, accessible through a series of stone carved stairs. These carvings were created out of natural stones of the mountain. Magaibustu carvings enjoyed their peak in the Heian Period (794-1185 AD), and almost 80% of all Magaibustu carvings are found in Oita.

In addition, there are numerous Kunisaki Towers observable in this peninsula. These towers were created to show the presence of Buddha. The oldest of these towers, found in Iwatôji, was built in 1283 AD.

**Shichitoui:** The shichitoui (*Cyperus monophyllus* VAHL) grass is a special type of plant that is highly valued for its durability when used as straws for weaving mats. Shichitoui mat-weaving took place in many locations but with the expansion of machine-based weaving industries, the practice declined rapidly during the postwar period. Today this practice is limited to the Aki Area of Kunisaki City, making it an endemic agriculture-based industry of

the peninsula. Kunisaki was the center of shichitoui mat weaving from the Edo to Showa periods in Japanese history, when such mats were of high demand. During the Tokyo Olympics in 1964, the Judo mats were made of this type of grass, and during 1957, 5.5 million mats were ordered in total, and were mainly sold in northern Japan.

The number of households engaging in this practice has dwindled to a mere 5. Recently there are a number of efforts to revive this tradition and the Kunisaki Shichitoui Promotion Network was founded in 2010. The shichitoui grass mat is a very durable product, and it has numerous advantages over conventional grass mats: such as the fact that asthma patients who are generally allergic to straw mats can use this product freely, and the mat is more fire resistant compared to conventional grass mats, making it a safer material for homes. However, the plantation, sprouting, collecting and weaving of shichitoui requires human hands all the time, as the grass is thicker and longer than other types of grass used for weaving, it cannot be cut using conventional cutting machines. Today, all five households weaving this type of mat do so by hand, making it an important cultural practice (Figure 10). When we consider the various properties of the shichitoui, we can add that the practice can be a viable livelihood option at a small scale due to its advantage over other types of weaving grass, and is likely to promote a more environment friendly way of mat-weaving.



Figure 9. Shichitoui processing for Tatami mat weaving (photo by author)

## **8. Discussion: Tourism potential and challenges of Kunisaki GIAHS Tourism as a Vehicle of Regional Revitalization**

Increasingly, nature-based tourism activities, which are predominantly rural, low-impact and ‘slow’ compared to other forms of mass tourism, are seen as beneficial for local communities,

if managed properly (Fennel, 2005.). In Japan, rural regions are adversely affected by rapid aging and depopulation, and out-migration of the younger generation into urban centers (Traphagan and Knight, 2003.). Various forms of rural and ecotourism activities have gained prominence in Japan, which are often collectively referred to as ‘green’ tourism or ‘experience-based tourism’ ( Osawa, 2010). Two prominent themes associated with tourism based pathways of rural revitalization are: ‘interaction’ between urban and rural populations, and creating a ‘regional vision’ by focusing on traditional community lifestyle (Hashimoto et al. 2011).

The conceptual diagram below shows relationships between different components of society, culture and landscape in Kunisaki, and tourism. Unidirectional arrows show primarily one-way relationship such as the ancient agricultural traditions creating the tameike reservoirs and shiitake farming culture. Bi-directional arrows indicate mutual feedback between components. Finally, dotted lines indicate immature mutual relationship: this research identifies two such pathways that can be explored more in order to manage tourism in a sustainable manner in this upcoming GIAHS landscape. Firstly: the tourism potential of the tameike reservoirs is still underutilized, and tourists rarely see these reservoirs as ‘destination’. Secondly: tourism is still weakly linked with the local community and practitioners of traditional agriculture, who form the core of the Kunisaki-Usa GIAHS.

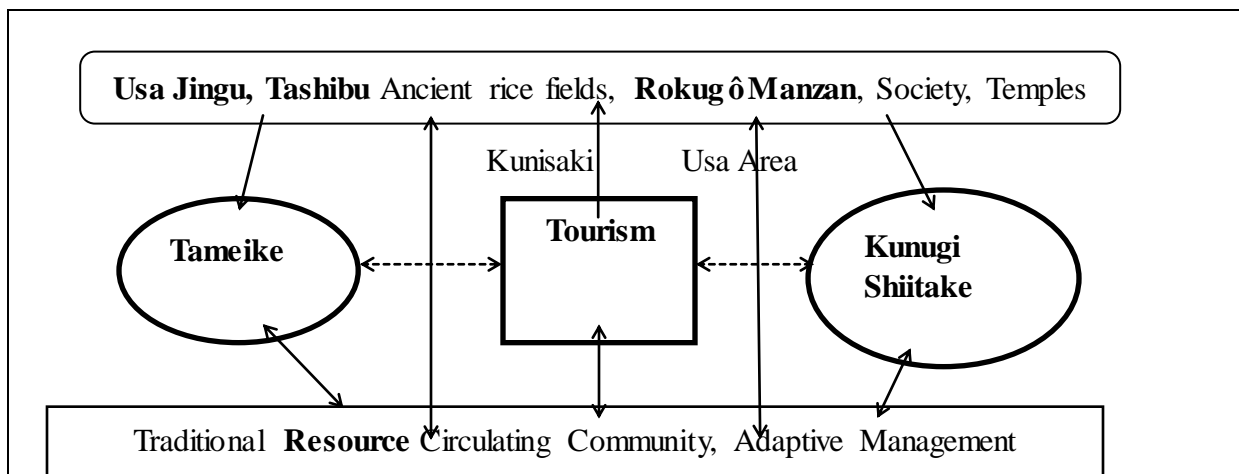


Figure 10. Kunisaki Agricultural heritage System and Tourism (source: the author)

A notable challenge that the author encountered in the field was the lack of data on tourist numbers in the target area. Oita Prefecture maintains good quality data on tourist arrivals, type of tourism activities, and origin of tourists in general, but repeated inquiries at prefecture office and individual city, town or village administration levels drew a blank, as far as tourist numbers in the Kunisaki Peninsula is concerned. This problem possibly hints at the nature of the two ‘immature’ pathways: the area is still very much inadequately marketed as a tourist destination, and the identity of Kunisaki as a whole, has fallen off sharply in contemporary Japan. The region is usually seen as ‘remote’, ‘backward’ and as an ‘aging society’—despite excellent infrastructure like airports, large railway junctions and ferry ports located nearby. Kunisaki is located near Beppu City in Oita, which attracts 12 million tourists (Beppu City



Office, n.d.) and access to an international and a domestic airport.

However, the peninsula remains rich in tourism capitals, which we saw, can be divided into two distinct types: natural and cultural tourism capitals. The geographical characteristics of the land allowed the development of a unique and dynamic traditional water management system. This system is interlinking of multiple small scale ‘tameike’ reservoirs in small river valleys for wet rice cultivation and more value added farming like shiitake mushroom—and these tameike reservoirs act as valves on the watercourses, facilitating resource circulation between mountains and seas. Due to the remarkable density of such reservoirs, the area can become a hub of agri-tourism, or more specifically, ‘tameike’ tourism. The broadleaf Kunugi Oak forests, rich in biodiversity and known for a number of ecosystem functions are also a production base for the highly valuable shiitake mushroom. This landscape can simultaneously be a hub for agri-tourism and nature based tourism activities. As far as cultural tourism capitals are concerned, Kunisaki offers a lot of them. These are: old temples and shrines, stone carvings, ancient pilgrimage routes, and unique festivals. The Rokugo-manzan, Usa Hachiman shrine, Mineiri festival are some most prominent examples. All of these are related to the idea of resource circulation between mountains and seas an idea that became the central part of the local societies through a fusion of local animistic beliefs and Buddhist philosophy. Thus, these cultural capitals were formed due to the natural capitals of the landscape, and they share a close, symbiotic relationship.

The endemic shichitoui grass cultivation is another major attraction, and one that embodies nature-culture interface. While the grass itself is natural, the weaving practice is deeply related to tradition and culture making shichitoui an important cultural tradition of the landscape. Though the production of shichitoui mats declined sharply during the postwar period, there is renewed interest in this tradition, with possible implications for new tourism activities like ‘farm stay tourism’ (Torres and Momsen, 2011).

A particularly interesting example of utilizing local attractions for ‘farm-stay tourism’ is the case of Shunran no Sato in the Noto Peninsula in Northern Japan. The local agricultural community came together to promote their little hamlet to outsiders through innovative measures like welcoming tourists in resident properties, serving them with traditional food and encouraging tourists to engage in cleaning up local waterways and pruning grasses (Vafadari, 2012). Local residents noted that interaction with tourists had helped them to gain a sense of identity, and increased tourist consciousness about the landscape had even led to an improvement of the environment, as weeds were cleaned up, and ecosystem services of local rivers and forests were appreciated.

This model can be easily replicated in Kunisaki. In this way, tourism can build or improve social, institutional and economic capitals of the area and help develop sustainable GIAHS Tourism in Kunisaki.

## **9. Conclusion**

The Kunisaki Peninsula is a dynamic landscape of resource circulation and co-evolution of nature and agrarian societies. This area was a hub of cultural activities in historic times, but

declined during the last century mainly due to demographic factors like migration, aging and depopulation. However, the remaining farming community retains an excellent example of community resilience, and the landscape is rich in tourism capitals. The nomination of this landscape as a GIAHS has opened up new opportunities to re-evaluate the traditional resource circulating societies and indigenous resource conservation culture of the Kunisaki Peninsula. The GIAHS accreditation committee recognized ‘core’ areas such as the broadleaf Kunugi forests which are increasingly rare in Japan, and indigenous ‘tameike’ reservoirs. These were seen as vital for sustaining indigenous, and endemic, agriculture which sustain the tourism potential of the area. In the contemporary times, when the peninsula has steadily receded to the backstage of life and activities in Japan, this nomination raises an exciting opportunity to rediscover, and eventually revitalize this landscape, which has a rich history to teach us many things on sustainable living.

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## Notes

Note 1. A 'tameike' typically means a pond or reservoir. Though the word can mean many types of artificial reservoirs, starting from little ponds across streams created by earthen walls, to huge storage reservoirs of modern dams--this paper uses the word to denote mostly earthen reservoirs built in the Kunisaki peninsula by traditional rice farming communities.

Note 2. There are some doubts whether the name Ninmon belonged on one individual, or a group of people.

Note 3. A part of Bungotakada City that has retained its Showa-style shopping arcades, buildings and traffic lanes. The area is a popular tourist destination.

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