Globally Important Agricultural Heritage System

Sawtooth Oak Forests and Irrigation Ponds Connecting the Kunisaki Peninsula Usa Integrated Forestry Agriculture and Fisheries System

In May 2013, Oita Prefecture’s Kunisaki Peninsula Usa area (which includes Bungotakada City, Kitsuki City, Usa City, Kunisaki City, Himeshima Village and Hiji Town) was designated as a Globally Important Agricultural Heritage System (GIAHS).
Blessings from the forest: The Shiitake Homeland. “Trees producing food”, contributing to global food security

An abundance of nature and trade nurtured by the Sawtooth Oak forests

Supply of log wood for Shiitake production

Water retention in soil, swollen soil

Maintenance of reliable water springs

Formation of regional landscape

A history of lighting with the “insufficient water”

The succession of a world-class system

- Log wood Shiitake cultivation utilizing the Sawtooth Oaks
- Multiple irrigation ponds interlinking the irrigation water supply system
- Rice paddies farming fostered by the Sawtooth Oak forests
- A diverse ecosystem nurtured by the Sawtooth Oak forest and interlinked irrigation ponds
- Farming culture and landscape handed down through generations

The interlinked system of Japan’s greatest accumulation of Sawtooth Oak forests and multiple irrigation ponds bears a variety of agriculture, forestry and fishery industries which includes the country’s sole Shiitake production area, in addition to preserving the diverse ecosystem. Based on the Rugoku Manzaiz culture, many folk events related to farming passed down through generations still exist today.

Log wood cultivated Shiitake produced from forest resources

In this area, log wood cultivated Shiitake production using Sawtooth Oak forests is carried out traditionally. Sawtooth Oaks provide the necessary nutrients for the growth of Shiitake mushrooms and are used to produce log wood cultivated Shiitake food source. The Sawtooth Oak forest resource system that produces this food source is highly regarded by the Food and Agriculture Organization of the United Nations (FAO) because it contributes greatly to the aspects of nutrition and livelihood security in this region of limited arable land. Furthermore, by growing log wood cultivated Shiitake, the logging and regeneration cycle of the Sawtooth Oak forest is repeated and further promotes the renewal of the forests. Together with maintaining public functions of the forests such as recharging the water resources, it is linked to the preservation of the excellent Satoyama (rural area) environment and society.

One log wood cultivated Shiitake production area,

Middle Ages Manor (Tashibunosho) still exists to this day

In the past, the people of this region had to contend with water shortages because they carried out rice paddies agriculture which utilized the natural landscape. The remains of each era are still visible in the “Tashibunosho Manseki Forest Landscape” which still exists today almost completely unchanged from the Middle Ages. In the region around the base of the mountains, the Sawtooth Oak forests are properly managed on the recharged water resources through rice paddies agriculture and forest conservation. They form the beautiful scenery of the “Satoyama area” and forest conservation. With origins in the major eras of the 11th Century, the fact that this traditional forest, the oldest in the Chugoku region, has been retained is highly important, and its historical significance was aligned as “Important Natural Cultural Landscape”.

Shiitake cultivation does not stop with the water usage period and rainy season. In the production region of Shiitake, the forest is grown widely within the prefectures given the high demand for its delicious “Takamakura” leaves that are made from it. Furthermore, Shiitake is a major traditional vegetable in Japan. Compared with simple (dew) rain, it has higher nutritional value and is used for making traditional dishes for dishes of better quality and additional nutrients. It is planted in early May and is harvested in September, allowing a grow time of 4 months. Approximately 90 days after it is planted, it becomes ready to harvest by hand using sticks. The Shiitake is picked and each piece is cut. It is sun-dried and preserved in straw baskets. Shiitake is a very labor-intensive crop.}

Farming culture and landscape handed down through generations

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A diverse ecosystem nurtured by the Sawtooth Oak forest and interlinked irrigation ponds

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The remaining Shiitake crop production area in Japan

Characteristic agriculture, forestry and fishery products and the diverse ecosystem

the downfall of rain in this region soak into the soil plowed up with fallen Sawtooth Oak leaves and turns into spring water comprised of organic matter and nutrient salt. As a source of nutrients for phytoplankton and seaweed, this spring water supports the rice paddies agriculture and coastal fishing in addition to nurturing the diverse ecosystem.

27 types of vegetation listed on the Ministry of the Environment’s Red Data List of Threatened Species are found in this region, including 15 Benthic (phytoplankton in the water) species.

48 types of fish and invertebrates listed on the Red Data List of Threatened Species are found in this region, including 12 species of fish and 36 species of invertebrates. 12 species of fish and invertebrates belong to the Red List of Threatened Species in this region, including 4 species of fish and 8 species of invertebrates. Fish species that are listed are those whose populations have decreased significantly.

53 species of birds registered on the Red Data List including the Little Gull. The Little Gull is a “protected bird” under the Natural Park Law and is designated as an “Important Bird Area”.

Ogasawara Japanese Giant Saddleback (Photographer: Shinobu Ito)

Hokkaido Japan (Photographer: Katsuo Nozaki)

Little Gull (Photographer: Katsuo Nozaki)

Akita (Photographer: Katsuo Nozaki)
Farming and food cultures passed down through generations

The Kunisaki Peninsula was once made up of the six hamlets called Musashi, Kunawa, Kunisaki, Tashibu, Aki and Imi, formed along the valleys spreading outward from the Mt. Futago ranges. These six hamlets together were called “Rokugo”. The syncretic Shinto and Buddhism “Rokugomonzan culture” in the temples opened by the monks of Kyushu's largest manor, the Usa Hachiman Shrine (a National Treasure) and its associate temple Miroku is known to have blossomed, and the folk customs and food culture associated with farming have been passed down through generations to this very day.

Goshinkosai Festival
(Usa City)

Amabiki Shrine
(Bungotakada City)

Kebesu Festival
(Kunisaki City)

Kitsune-odorl (fox dance)
(Himeshima-mura Village)

In the Kunisaki Peninsula Usa area there are many temples of the Tendai Buddhist sect with strong ties to the Usa Hachiman Shrine, and there are many characteristic religious festivals relating to agriculture that are still practiced to this day.

Shujonie Festival
(Bungotakada City and Kunisaki City)
This festival is to show gratitude for the harvest of the previous year and to pray for a good harvest in the year ahead. It takes place at Tennenji (Bungotakada City). Iwaoji and Jobutsu (both in Kunisaki City) temples. Giant torches are lit, there is a Buddhist memorial service by monks, and ‘Oni’ (demon) dances are performed.

Doburoku Festival
(Kitsuki City)
This is a festival at Shirahigetahara Shrine, where thanks is given to rice harvests. At this festival rice wine called ‘Doburoku’, made by parishioners is offered to the guardian deity of the shrine. It is said to have been passed down as a parishioner focused religious organization and event. The practice began in 710, and has been carried on for over 1300 years.

There are many local dishes here that utilize seasonal agriculture, forestry and fishery produce caught and harvested in the area.

This local cuisine is offered at each household and restaurant run by local residents.

A group of local women is not only carrying on the tradition of the local dishes, but is also developing new meals using local produce.

They are endeavoring to revitalize the region through the succession of regional culture and interaction with large cities.

Dango dumpling soup
(all regions)
This soup contains seasonal vegetables and long, stretched out Dango dumplings made with wheat flour, and is seasoned with miso. It is a local dish representative of Oita Prefecture and has been a fond meal for many people from times when rice was scarcer.

Mitoriki-rice dish
(all regions)
The Mitori bean is part of the pea family of plants and is a type of black-eyed pea. Compared to the Azuki bean, the Mitori bean is darker and does not break apart when cooked. It is eaten as a substitute for Azuki beans at Buddhist memorial services and feasts at festivals.

Taimen
(Himeshima-mura)
This dish is a local specialty served when parents of the bride and groom meet for the first time. It is a play on the word Taimen, which can mean “meeting or facing” and also “sea bream” and Men “noodles”. Sea bream are said to find a partner and not leave its side and long noodles represent the hope of a long relationship between the families.

Shrimp Chirashi Sushi
(Usa City)
The Katchi shrimp used in this dish are whisked velvet shrimp caught in the Buzen Sea and boiled then dried. This version of chirashi sushi is made with many local dried foods including shiitake mushrooms and beans. It is commonly made for festivals or when visitors come to the area. It is a local food of the Nagasu area of Usa City.
The deep valleys and ridges extending outward from the Futagawa mountain system to become the Kunisaki Peninsula

A natural environment that is tough on rice paddy agriculture

The Kunisaki Peninsula. Area 1 is situated in northeast Kyushu, southern of the Seto inland Sea. It is formed by four cities and six villages, with the round peninsula at their center. The geographical terrain features mountain ridges and deep valleys extending out radially from the Mt. Futagawa mountain range at the center of the peninsula. Plain lands are narrow and there are many short and steep rivers. Due to its low precipitation and volcanic soil that quickly absorbs any rainfall this region has struggled with the difficulties of securing water since ancient times.

- Bunagakata City
- Kunisaki City
- Kitikata City
- Himemasuka Village
- Usa City
- Ito City

To overcome these challenges, the region has developed a unique combination of agriculture, forestry, and fisheries that are well suited to the local geography and climate. This has allowed the people here to sustain their livelihoods.

The sawtooth oak circulation system and food production system

Japan’s largest sawtooth oak forests and their multiple functions

The cumulative total of sawtooth oak trees in Oita Prefecture accounts for around 24% of the total nationwide, making it the largest amount in Japan. The proportion of the region’s forest area covered by sawtooth oak forests is 11.5%, which exceeds the prefectural average.9 This is due to the geographical characteristics of the area which make the natural environment well suited to sawtooth oaks. From the dormant stage of trees in the Sawtooth area there are opportunities for use as Shitake cultivation log wood and as wood and charcoal fuel materials to the region’s residents could make a living.

Irrigation water supply system of multiple interlinked irrigation ponds born from the geographical constraints of the region

On top of stably running rice paddy agriculture, it is estimated that the history of the indispensable irrigation ponds began in the period in the 11th Century when the fields were opened up and crop cultivation began. Most of these were established in accordance with the population increase of the 19th Century. Given that the construction of large scale irrigation ponds was not possible due to geographical constraints, the ancestors established the techniques to secure the necessary amount of water using multiple interlinked small scale irrigation ponds. Through this, the region could successfully maintain a good food supply.

The management system of the multiple, interlinked irrigation ponds

The Tsunai region of Kunisaki City currently uses an interlinked system of six ponds which was established in the Edo Period. The Takao pond, which is the furthest upstream pond is kept in use for the sake of the latter several rice growing seasons. However, the three mid-stream ponds and the two downstream ponds are fed into one another in a continual supply of water for production.

Misaki Pond (Kunisaki City)

In this region the knowledge and experience needed for continuing the irrigation water system is passed down through generations. There is a position called the "Shaman" (pond manager) who is in charge of the operations and management of the irrigation ponds. Water withdrawal management is conducted so that rice paddy water rations are equalized and so that water is used efficiently and fairly. The fact that this system is maintained and managed for each of the rivers flowing outward from the Mt. Futagawa ranges is a feature of the rice paddy agriculture of this region.
Agriculture, forestry and fishery produce brimming with regional characteristics

This area didn’t partake in large-scale rice paddy farming so in order to maintain their livelihood residents needed to cultivate a crop that complemented wetland rice. In the past, many farming households combined rice paddy farming with log wood cultivated Shiitake production, but these days there are many commodities being produced such as beef, Welsh onions, small Welsh onions, and greenhouse-grown Mikan fruit. There are many characteristic products, and in particular the Shichitou crop production area in Kunisaki Peninsula Region is the only production region in the country. In addition to this, there are a variety of agriculture, forestry and fishery industries developing in Oita Prefecture such as the Oita Prefecture specialty Kabosu lime, and the indigenous species such as Mitori beans and Oben persimmons that have taken root in this region.

Dried log wood cultivated Shiitake
Kabosu limes
Greenhouse-grown Mikan
Grapes
Tea
Strawberries
Small Welsh onions
Welsh onions
Wheel chrysanthemum
Tsuwahime rice
Shichitou
Pond loach
Gazami crab
Oita Bungo Beef
Shiroshita karei (flattish)
Japanese tiger prawn
Bungo Beppu Bay Chirimen fish
Japanese oyster
Cutlass fish
Globally Important Agricultural Heritage Systems

(GIAHS)

The Food and Agriculture Organization of the United Nations (FAO) began this project in 2002 as a global system aiming for the stable securement of food. Future generations must learn the traditional agriculture and farming methods, the culture that has developed through them, the landscape, and the biodiversity as all these come together and this project is an attempt at preserving and continuing to make the most of this designated globally important agriculture system (includes forestry and fisheries).

How are they different from UNESCO World Heritage (Cultural Heritage) Sites?
UNESCO World Heritage (Cultural Heritage) Sites are registered and protected "land properties" such as historical sites and historical structures, whereas GIAHS recognizes traditional agricultural systems which should be passed down to future generations, with the goal of preservation and sustainable utilization.

Updates available on Facebook

GIAHS Kusinski Peninsula Usa Region

For details on Oita Prefecture's GIAHS site

GIAHS OITA

An inheritance for the future ~ Action plan implementation ~

The Kunisaki Peninsula Usa GIAHS Promotion Association

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