

# Re-branding tatami-facing made from **Shichitoui** (*Cyperus malaccensis* Lam.) in Kunisaki GIAHS to overcome insufficient payment for farmer's too severe labor

世界農業遺産地域での農林漁業者はどれくらいの価値を生みだすことができるのか  
～“くにさき七島藨表”の高度ブランド化の例～

**Hiroaki HAYASHI**  
(Chairman of The Kunisaki Peninsula Usa GIAHS Promotion Association)

2018.8.16  
at Kunisaki city

A bundle of ten tatami-facings

## Kunisaki Peninsula-Usa area

Designated as GIAHS on 2013 by FAO of the UN.

Area: 1,324 km<sup>2</sup>

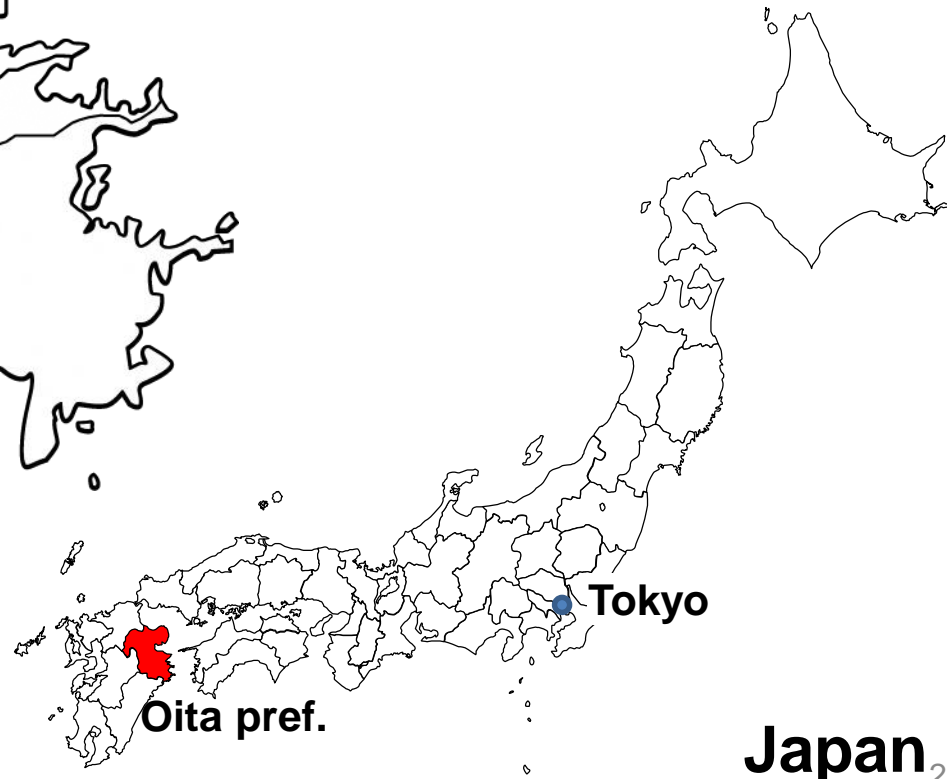
Population: 165,016 (2017.6.1)

Number of primary industry workers : 10,208 人 (2015 )

Shiitake mushroom farmer: 835 (2015 )

Shichitoui tatami-facing producing family: 8 (2017)

Oita prefecture

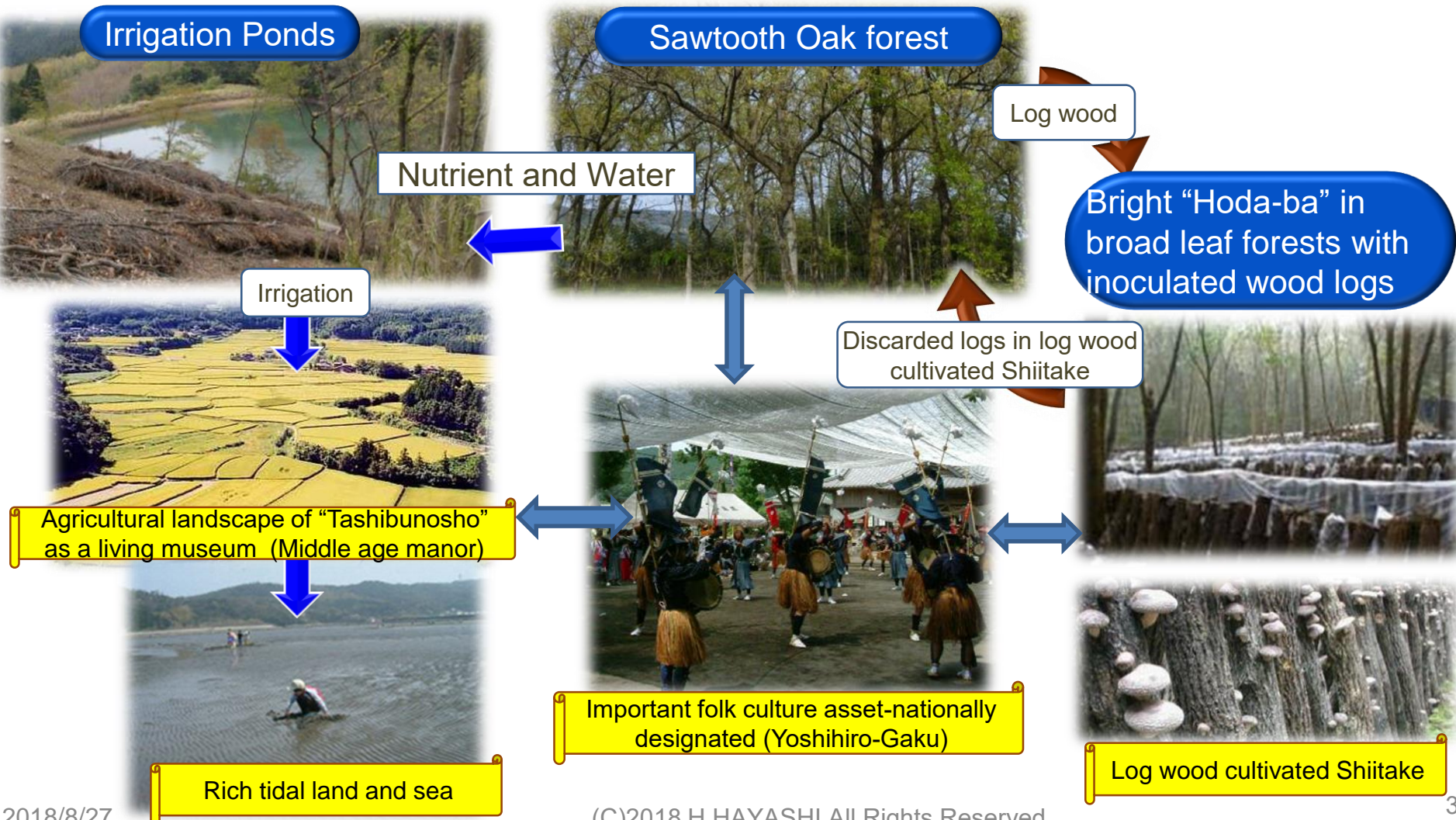


Japan<sub>2</sub>



# Characteristics of Kunisaki GIAHS

- ◆ **Geographical:** Round peninsula with highly porous volcanic soil and steep rivers
- ◆ **Climatic:** Warm temperate and low rainfall
- ◆ **Landscape:** Beautiful Paddy fields, Irrigation ponds, Sawtooth Oak forests, Sea coasts.
- ◆ **Products:** Shiitake mushroom, Shichitoui, Rice etc.
- ◆ **Historical:** Fusing Shinto and Buddhist philosophies flourished
- ◆ **Biodiversity:** Sustainable coexistence with endangered Oita salamander etc.,



# Rich crop diversification in Kunisaki Peninsula-Usa area

As large scale paddy agriculture was not developed in this region, it became necessary to cultivate commodities that complemented wetland rice.

Paddy fields

Broadleaf forests



Rice

+



A bundle of ten tatami-facings

+



Dried-Log wood cultivated Shiitake

## Shichitoui Industry Which Remains Only Kunisaki Peninsula in Japan

### Features ;

- 1: Dried Shichitoui (*Cyperus malaccensis* Lam.) for durable weaving tatami facing
- 2: Indigenous farming practice only in Kunisaki and brought large profits in a small paddy field
- 3: Accumulated know-how for Shichitoui industry in Oita prefecture

### History;

- 1: Shichitoui cultivation in Oita began about 350 years ago after introduced from Tokara Islands
- 2: In 1957, 5.5 million tatami-facings were produced in 1505 ha paddy field in Oita.
- 3: Several thousands tatami-facings were produced in 1 ha of paddy field at Kunisaki in 2009
- 4: Establishment of 'Kunisaki Shichitoui' Promotion Association for the revival of the industry in 2010
- 5: Kunisaki GIAHS designation in 2013
- 6: Geographical indications(GI) designation for Kunisaki Shichitoui tatami-facing in 2016



# Two types of tatami-facing:

made from Shichitoui

(*Cyperus malaccensis* Lam., Cyperaceae)



made from Rush grass

(*Juncus effusus* L. var. decipens, Juncaceae)



## As tatami-facing:

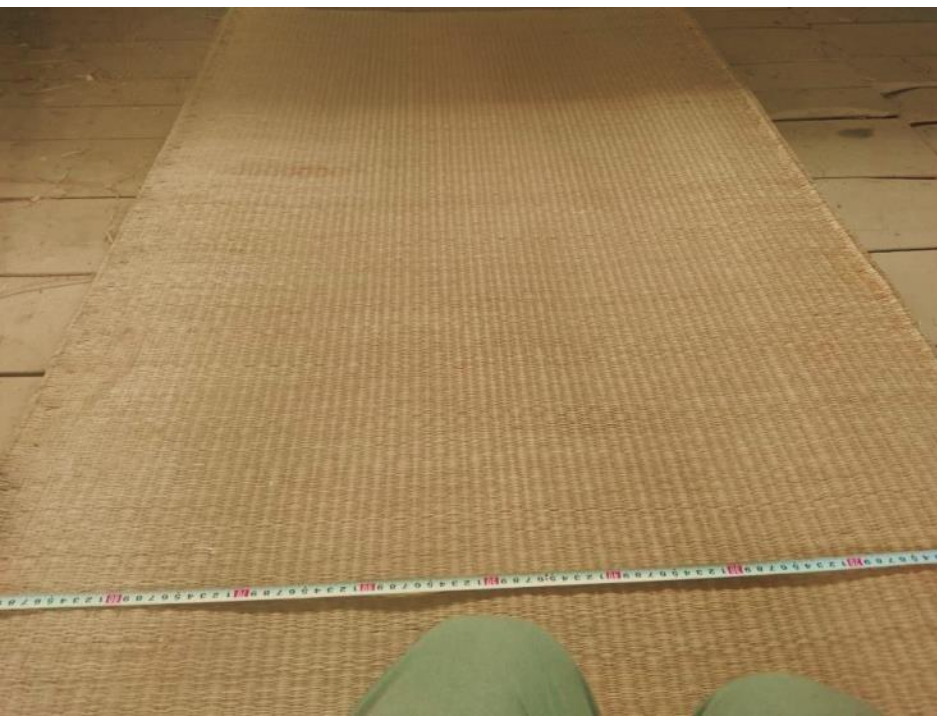
- Durable and resistant to fire
- Used in dinning room, working room  
( special **tea room** and once widely known as a **Judo tatami** )
- At present :
  - Specially known as “Ryukyu” and almost have been forgotten
  - Produced only in Kunisaki Peninsula, Oita

- Delicate and beautiful
- Used in guest room
- At present:
  - Commonly used and produced mostly in Kumamoto prefecture

## As fiber crop plant:

- Tropical and/or subtropical short-day plant with thicker triangular stem
- Transplant in May and harvest in August

- Temperate long-day plant with circular stem
- Transplant in November and harvest in next June



This old tatami mat was laid in my dining room in the 1960's. The tatami-facing was made from Shichitoui produced in my family. These tatami mats closely related to daily life and were cheaper than that with the tatami-facing made from rush grass.

However, even my family wanted prestigious tatami with the tatami-facing made from Rush grass.

Changes in Japanese lifestyle and way of thinking caused a reduction in Shichitoui tatami-facing consumption.



tatami mat  
from above  
(tatami-facing)



tatami mat  
from side

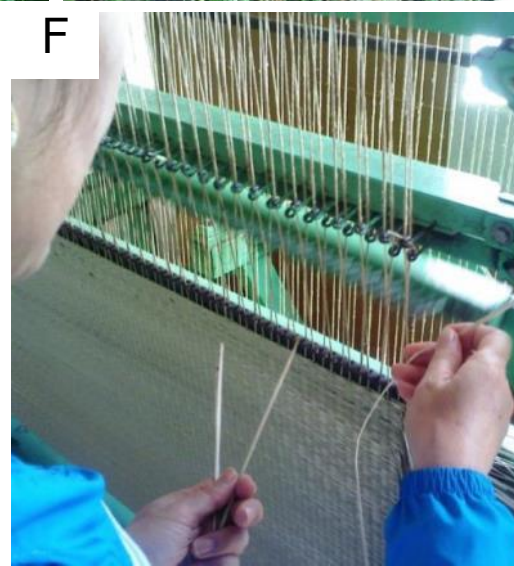


tatami mat  
from back side  
(rice straw base  
mat)



# Too severe labor for Shichitoui tatami-facing industry at around 1960's

(Reproduction photo by H. Hayashi)



A: Transplant into paddy field in May.

C: Harvest with a sickle.

D: Slice stem vertically into two parts through thin wire by hand.

(at present, mechanized)

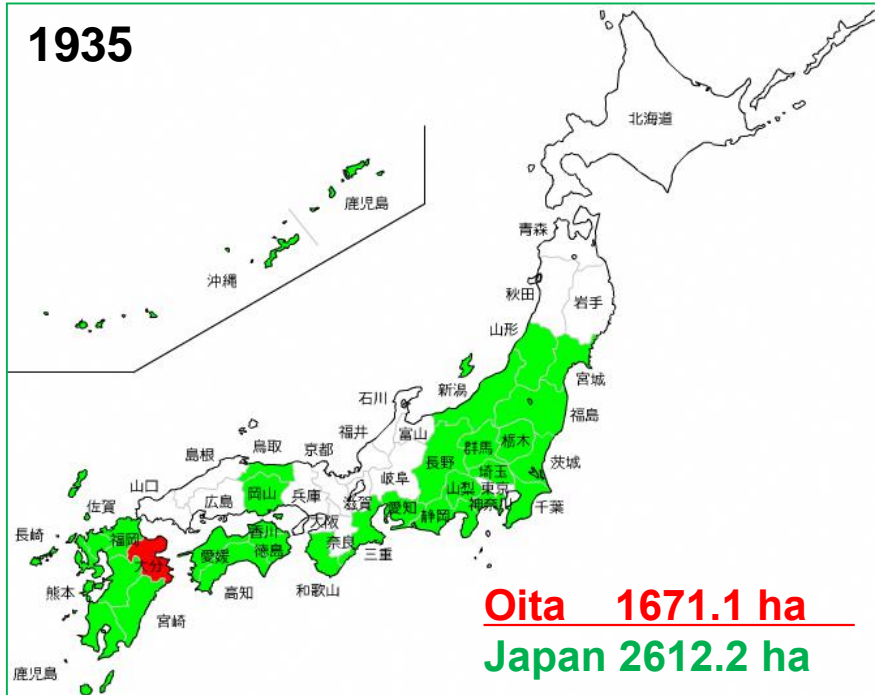
E: Dehydrate under sunshine  
(at present, mechanized)

F: Weave Tatami facing using using semi-automated machine

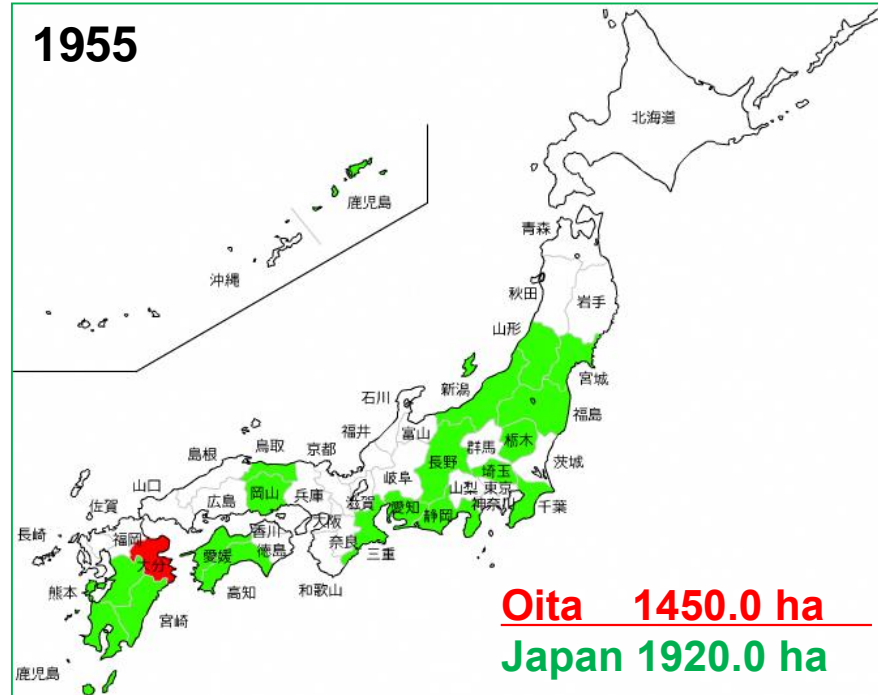
(at present, fully automated machine under development)

The inability to obtain the price suitable for too severe labor caused a drastic decrease in the production of Shichitoui tatami-facing.

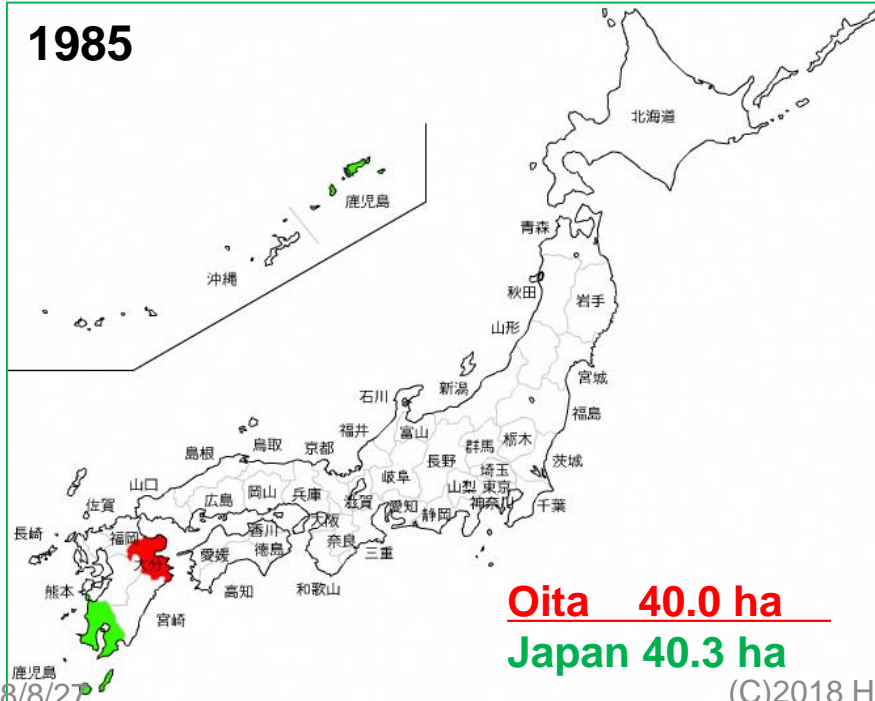
1935



1955



1985



## Transition of Shichitoui cultivated place in Japan

Shichitoui has been cultivated only in Oita prefecture since 1993<sup>(1)</sup>.

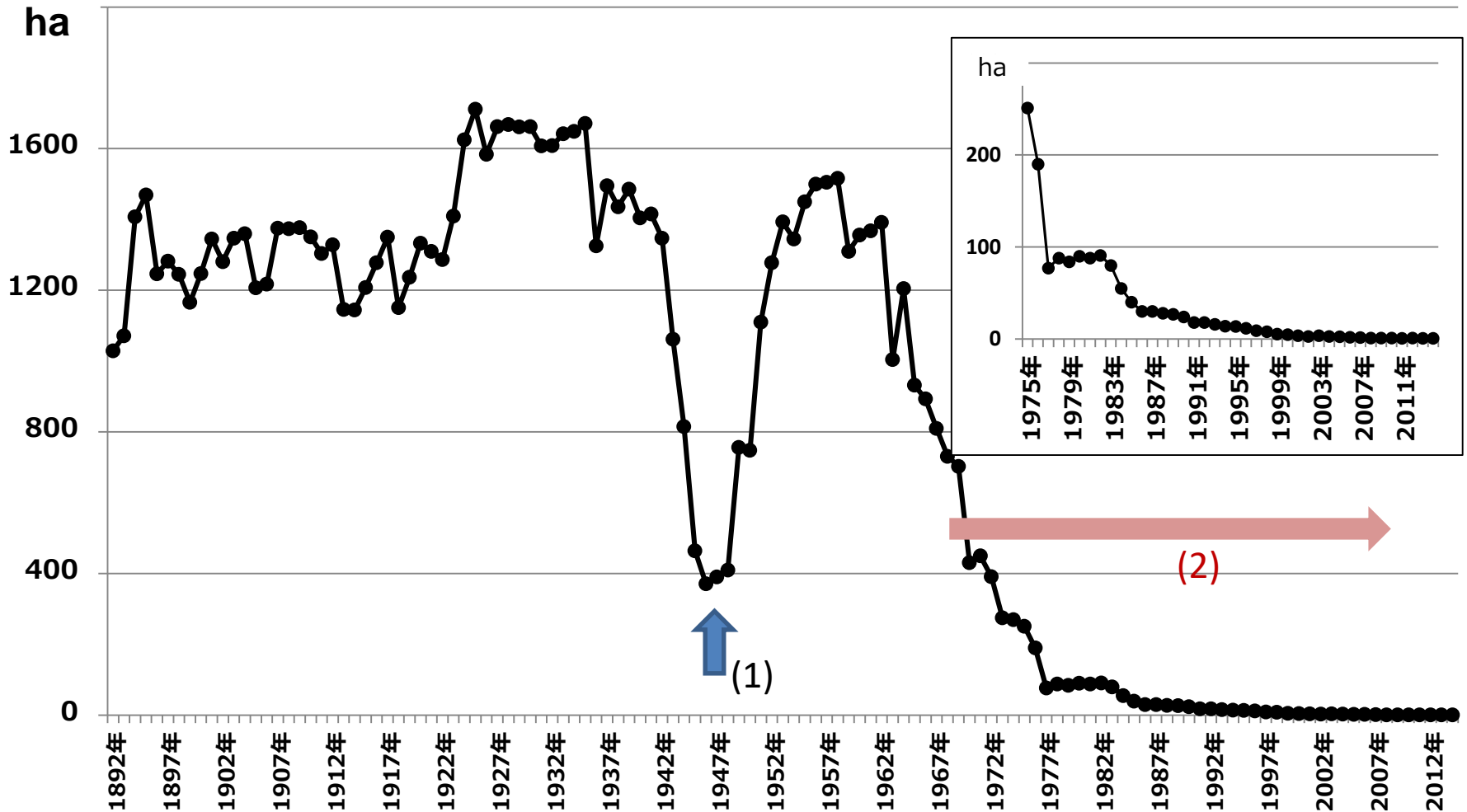
Figures were rewritten by H. HAYASHI based on the data in “Bungo no Shichitoui” (1986) by Tetsuo MAEDA

(1) [http://www.library.maff.go.jp/archive/Viewer/Index/001475375\\_0001](http://www.library.maff.go.jp/archive/Viewer/Index/001475375_0001)



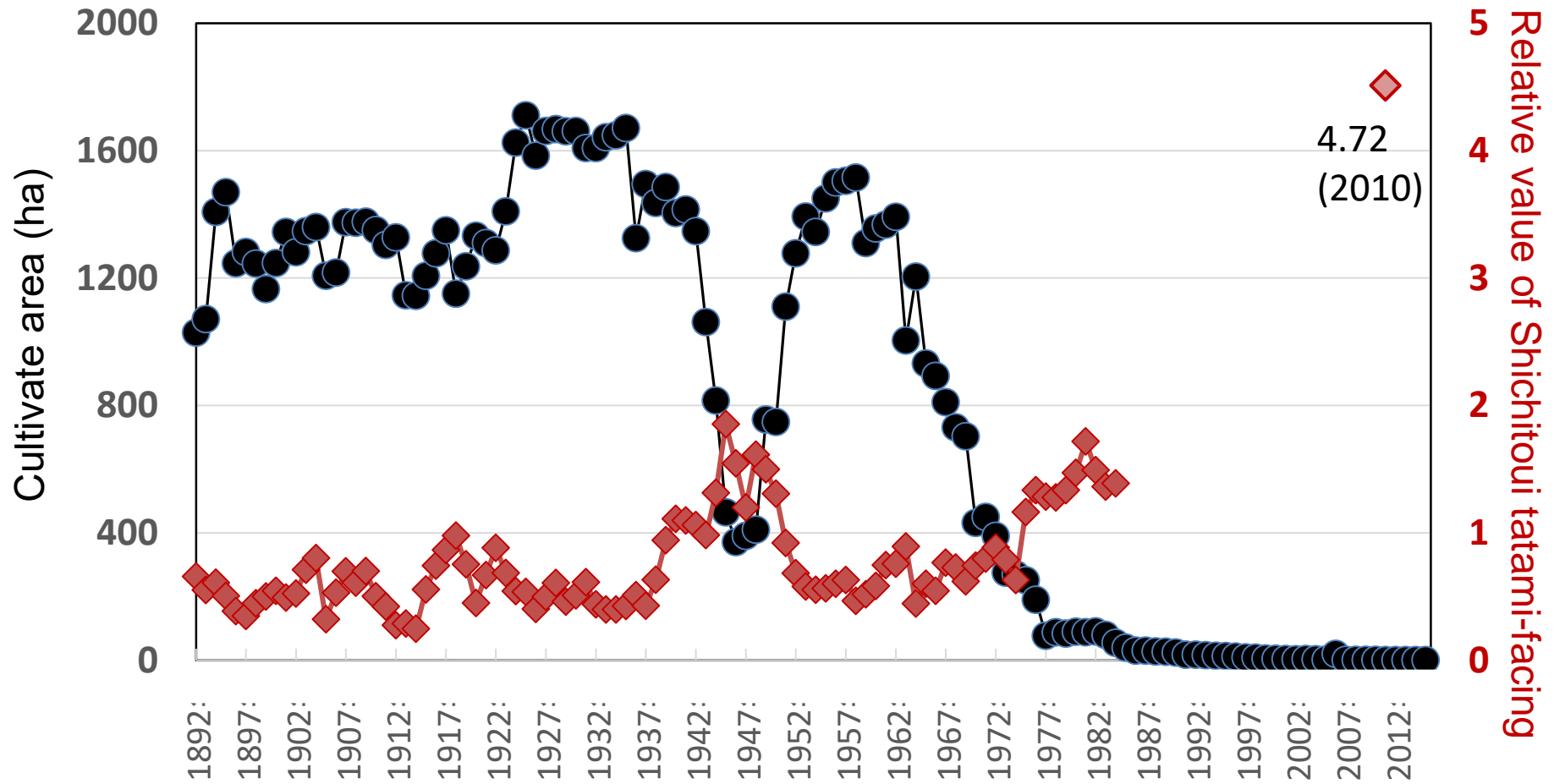
# Change in Shichitoui cultivated area in Oita prefecture

(H. Hayashi Hiryoukagaku (2014) )



- (1) During and just after 2<sup>nd</sup> World War, rice production was highly recommended in paddy field not Shichitoui.
- (2) Severe labor of the farmers was not rewarded, because a rapid decline in tatami demand due to westernization of Japanese lifestyle decreased the relative price of a tatami-facing.

# Change in Shichitoui cultivated area in Oita prefecture<sup>(1)</sup> and **Relative value of Shichitoui tatami facing**<sup>(2)</sup>




<sup>(1)</sup>Hiroaki HAYASHI Hiryoukagaku (2014). <sup>(2)</sup>Relative value of Shichitoui was calculated by **dividing the of 10 sheets of Shichitoui tatami-facing by the price of 60 kg of rice**. Data 1892-1984 was from “Bungo no Shichitoui” (1986) by Tetsuo MAEDA. Data of 2010 rice price was in <http://www.maff.go.jp/j/seisan/keikaku/soukatu/pdf/22kakaku-all.pdf>. Shichitoui tatami-facing price of 2010 was obtained by interviewing a wholesaler by Hiroaki HAYASHI.




## Action plan

# GIAHS: Kunisaki Peninsula Usa integrated forestry, agriculture and fisheries system



To pass traditional agriculture down to future generations



Regional revitalization by using GIAHS brand



No.1 Shiitake farmer  
(Kunisaki City)




Inspection tour from  
Korea



Revival and restoration of  
traditional Shichitoui industry  
(Kitsuki City)


## Trees Produce Food

—An agriculture, forestry and fisheries system sustainably maintained by the forested Okinawa and Irrigation Ponds—




## What's Shichitoui?

They grow up to more than 180 cm, (70In.)

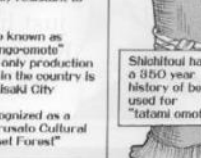


Harvested bundles are cut and sliced vertically into two equal halves. The bundles are left out to dry and then woven into "tatami omote," sheets (the outer covering of tatami mats).



**(Characteristics)**

- 5 to 6 times stronger than ligusa soft rush
- Highly resistant to fire
- Also known as "Bungomoto"  
The only production site in the country is Kunisaki City
- Recognized as a "Furusato Cultural Asset Forest"



Shichitoui has a 360 year history of being used for "tatami omote."

There are many handicrafts that can only be found here in this area.

These tatami mats are used in famous temples, historic landmarks and dojos.

国産平草平定地産世界遺産産品 Kunisaki Peninsula Usa GI®

b



C

d



a: Teaching materials for primary school children. b: Cultivation experience in elementary school(photo from Kunisaki City Homepage). c: Presentation at the junior high school Summit. d: Direct dialogue of a shichitoui-farmer and high school students.



# Recognition of the value of Shichitoui tatami-facing



## Japan Country Living p.62

by Amy Sylvester Katoh photographs by Shin Kimura  
1993 Tuttle Publishing



Photos by H Hayashi

## Fukagawa Edo Museum(Tokyo)

(Tatami in the house of ordinary  
people in Edo period)



Shichitoui tatami-facing has been used generally for a long time, and recently it has also been evaluated from foreign countries

## Recognition of symbiotic relationship between Shichitoui industry and nature



Craftswoman for Shichitoui, Ms. C. Iwakiri, has restored the traditional drying process for sliced Shichitoui stems on the beach, so called “Hamaboshi”.





A former Shichitoui farmer came to advise on the way of “Hamaboshi”.

Recognize that sliced Shichitoui drying operation kept the local coastline environment clean.



Children experienced this traditional work and enjoyed the beautiful beach.

A former Shichitoui farmer did not cultivated Shichitoui in order to maintain a clean beach.  
Consequently, they help nature.

# Development of human resources

## New entrants



2014.6

Kunisaki City

▲左からベテランの松原正さん・恵美さん、新人の淵野聡さん・美由紀さん

**Satoshi and Miyuki Fuchino** who started Shichitoui farming by receiving veteran farmer (Tadashi and Emi Matsubara) support. **New information available in [https://agri.mynavi.jp/2018\\_06\\_25\\_29993/](https://agri.mynavi.jp/2018_06_25_29993/)**

## Training program

of the traditional industry  
engineer for Shichitoui  
tatami industry







## New proposals for customers

### In Japanese Modern Room

photo from <http://shitto.org/>

### A Bench in the Modern Art of Museum

**O<sub>P</sub>AM** Oita Prefectural Art Museum

photo by H. Hayashi



# Branding using Kunisaki GIAHS +GI

## Severe quality standards of GIAHS Shichitoui products

(別紙3)

シチトウイ加工品の品質基準

### 1. Shichitoui tatami-facing

- ・国東市産で、以下の基準を満たしたシチトウイを原料として使用したもの。
  - ①長さ140cmで、茎の太さが中庸でバラツキがなく、茎の先端と根元の太さが揃っているもの。
  - ②鮮やかな銀青白色の色泽があるもので、適当な弾力があり、製織した畳表が均質となるもの。
- ・畳表に以下の不具合がないもの。
  - い切れ、経糸切れ、間不足
- ・くにさき七島蘭振興会の指導に基づいた製造を行い、品質検査に合格したもの。

### 2. Shichitoui Crafts

- ・国東市産のシチトウイを原料として使用し、厚み、幅、長さが均等の三つ編みにより製造されたもの。
- ・くにさき七島蘭振興会が認定した「くにさき七島蘭工芸士」の資格を持ったものが県内で製造したもの。
- ・くにさき七島蘭振興会が認定した円座、角座及びラグマットで、以下の不具合がないもの。
  - 円座：ゆがみ、凸凹がない円形
  - 角座及びラグマット：ゆがみ、凸凹がない正方形
- ・くにさき七島蘭振興会の指導に基づいた製造を行い、品質検査に合格したもの。



[http://www.kunisaki-usa-giahs.com/about\\_giahs/certification.html](http://www.kunisaki-usa-giahs.com/about_giahs/certification.html)

[http://www.maff.go.jp/j/shokusan/gi\\_act/register/22.html](http://www.maff.go.jp/j/shokusan/gi_act/register/22.html)

	名 称	規 格、仕 様 及 び 特 徴
①	円座(大)	直径60～61cm。国東市産のシチトウイを三つ編みにし、丸く編んだもの。
②	円座(小)一枚重ね	直径40～41cm。国東市産のシチトウイを三つ編みにし、丸く編んだもの。
③	円座(小)二枚重ね	直径40～41cm。国東市産のシチトウイを三つ編みにし、丸く編んだものを2枚重ねたもの。
④	角座(大)一枚重ね	40～41cm四方。国東市産のシチトウイを三つ編みにし、正方形に編んだもの。
⑤	ラグマット	ラグピース(国東市産のシチトウイを三つ編みにし、18cm、または、23cm四方に編んだもの)を縫い合わせたもの。(縫い合わせ枚数は、お客様のオーダーに応じる。)



円座(小)一枚重ね



角 座



ラグマット(36ℓ×ス)

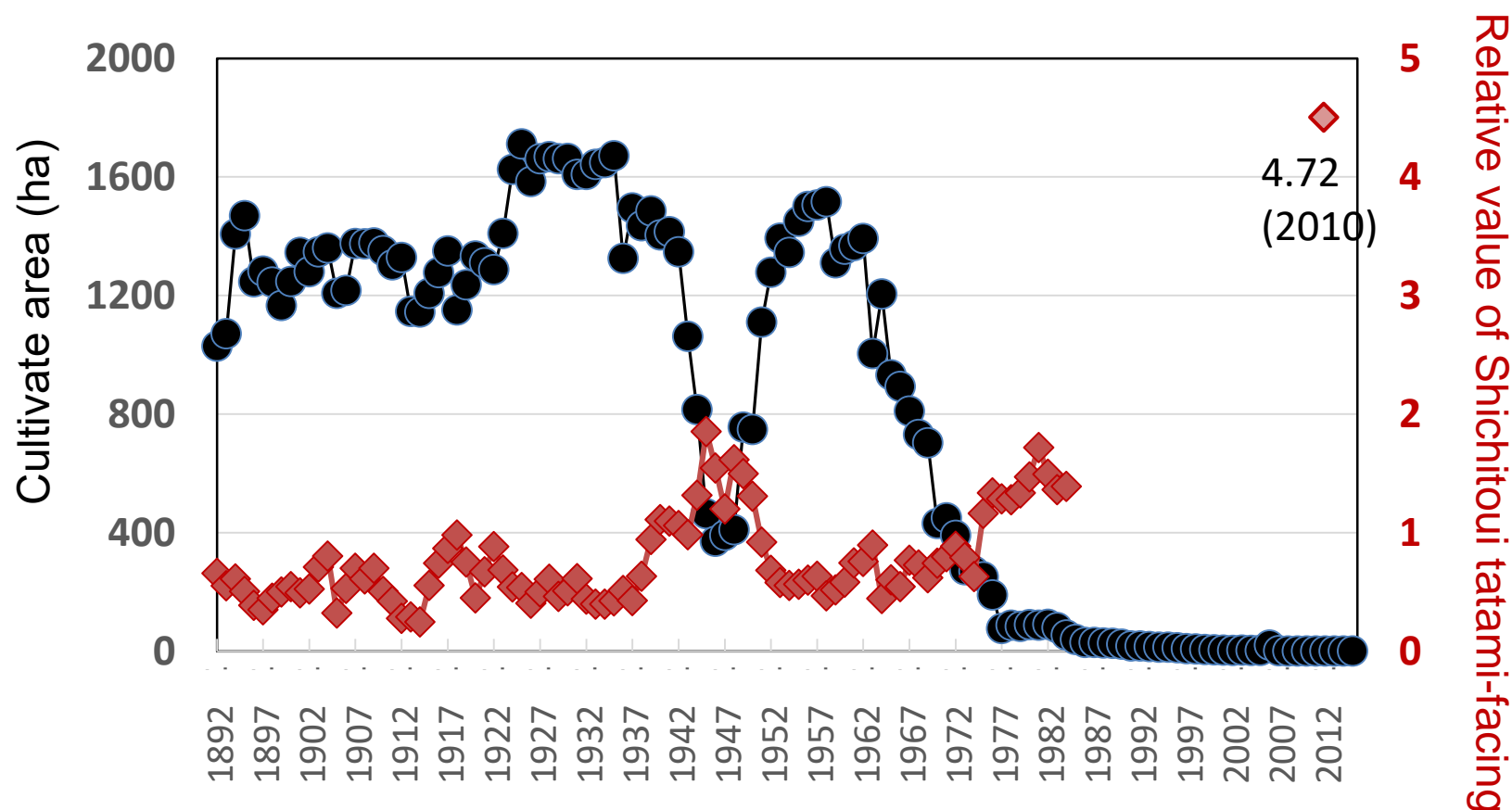
## Improvement of recognition of GIAHS is still essential!!

Awareness of GIAHS in Oita prefecture 47.5%(2015.3)→63.8% (2017.3)





# Change in Shichitoui cultivated area in Oita prefecture<sup>(1)</sup> and Relative value of Shichitoui tatami facing<sup>(2)</sup>



<sup>(1)</sup>Hiroaki HAYASHI Hiryoukagaku (2014). <sup>(2)</sup>Relative value of Shichitoui was calculated by dividing the price of 10 sheets of Shichitoui tatami-facing by the price of 60 kg of rice. Data 1892-1984 was from “Bungo no Shichitoui” (1986) by Tetsuo MAEDA. Data of 2010 rice price was in <http://www.maff.go.jp/j/seisan/keikaku/soukatu/pdf/22kakaku-all.pdf>. Data of 2017 rice price was in [http://www.maff.go.jp/j/press/seisaku\\_tokatu/kikaku/attach/pdf/180814-1.pdf](http://www.maff.go.jp/j/press/seisaku_tokatu/kikaku/attach/pdf/180814-1.pdf). Shichitoui tatami-facing prices of 2010 and 2017 were obtained by interviewing a wholesaler by Hiroaki HAYASHI.