Re-branding tatami-facing made from Shichitou (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
～“くにさき七島藺表”の高度ブランド化の例～

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

Designated as GIAHS on 2013 by FAO of the UN.

Area: 1,324 km²
Population: 165,016 (2017.6.1)
Number of primary industry workers: 10,208 人 (2015)
Shiitake mushroom farmer: 835 (2015)
Shichitouin tatami-facing producing family: 8 (2017)
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 Kunitaki Peninsula-Usa area

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

Shichitoui Industry Which Remains Only Kunitaki Peninsula in Japan

Features;
1: Dried Shichitoui (Cyperus malaccensis Lam.) for durable weaving tatami facing
2: Indigenous farming practice only in Kunitaki 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 Kunitaki in 2009
4: Establishment of ‘Kunitaki Shichitoui’ Promotion Association for the revival of the industry in 2010
5: Kunitaki GIAHS designation in 2013
6: Geographical indications(GI) designation for Kunitaki Shichitoui tatami-facing in 2016
Two types of tatami-facing:
made from Shichitouei
( *Cyperus malaccensis* Lam., Cyperaceae)

- 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

made from Rush grass
( *Juncus effusus* L. var. decipens, Juncaceae)

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

As tatami-facing:

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 Shichitouï 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 Shichitouï tatami-facing consumption.
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 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.
Transition of Shichitouï cultivated place in Japan

Shichitouï has been cultivated only in Oita prefecture since 1993\(^{(1)}\).

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

\(^{(1)}\) http://www.library.maff.go.jp/archive/Viewer/Index/001475375_0001
(1) During and just after 2nd 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\(^{(1)}\)
and Relative value of Shichitoui tatami facing\(^{(2)}\).

\(^{(1)}\)Hiroaki HAYASHI  Hiryoukagaku (2014).  \(^{(2)}\)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.
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)
Posterity education in Kunisaki Peninsula Usa area
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 shichitou Farmer and high school students.
Recognition of the value of Shichitouei tatami-facing

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

Japan Country Living p.62
by Amy Sylvester Katoh photographs by Shin Kimura
1993  Tuttle Publishing

Fukagawa Edo Museum(Tokyo)
(Tatami in the house of ordinary people in Edo period)

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

Recognition of symbiotic relationship between Shichitoui industry and nature
A former Shichitoui farmer came to advise on the way of “Hamaboshi”.

Children experienced this traditional work and enjoyed the beautiful beach.

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

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

Satoshi and Miyuki Fuchino who started Shichitouï farming by receiving veteran farmer (Tadashi and Emi Matsubara) support. New information available in https://agri.mynavi.jp/2018_06_25_29993/

Training program
of the traditional industry engineer for Shichitouï tatami industry
New proposals for customers

In Japanese Modern Room
photograph from http://shitto.org/

A Bench in the Modern Art of Museum

Oita Prefectural Art Museum
photograph by H. Hayashi
Branding using Kunisaki GIAHS +GI

Severe quality standards of GIAHS Shichitouyi products

1. Shichitouyi tatami-facing
   ・国産で、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、茎の太さが中筋でパラッキがなく、茎の先端と根元の太さが揃っているもの。
     ② 鮮やかな緑黄色の色合いであるもので、適当な弾力があり、製造した製品が均質となるもの。
   ・畳表に以下の不具合がないもの。
     い切れ、織り切れ、間不足
   ・くにさき七島製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. Shichitouyi Crafts
   ・国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。
   ・くにさき七島製興会が認定した「くにさき七島製興会」の認定を受けたもののが県内で製造したもの。
   ・くにさき七島製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、凹凸がない円形
     角座及びラグマット：ゆがみ、凹凸がない正方形
   ・くにさき七島製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。

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<thead>
<tr>
<th>名称</th>
<th>規格、仕様及び特徴</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 円座（大）</td>
<td>直径60〜61cm。国産のシチトウイを三つ編みにし、丸く編んだもの。</td>
</tr>
<tr>
<td>2. 円座（小）</td>
<td>直径40〜41cm。国産のシチトウイを三つ編みにし、丸く編んだもの。</td>
</tr>
<tr>
<td>3. 角座（小）</td>
<td>直径40〜41cm。国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。</td>
</tr>
<tr>
<td>4. 角座（大）</td>
<td>直径40〜41cm四方。国産のシチトウイを三つ編みにし、正方形に編んだもの。</td>
</tr>
<tr>
<td>5. ラグマット</td>
<td>ラグマット (国産のシチトウイを三つ編みにし、18cm、または、23cm四方で編んだものを縫い合わせたもの)</td>
</tr>
</tbody>
</table>

http://www.kunisaki-usa-giahs.com/about_giahs/certification.html

Improvement of recognition of GIAHS is still essential!!

Awareness of GIAHS in Oita prefecture 47.5% (2015.3) → 63.8% (2017.3)
Top news (2018.7.24) in “The Japan Agricultural News” saying-------

1: Shichitou Industry, Fusion of Tradition and Innovation
2: Shichitou, from Poverty Grass to Treasure Grass
Change in Shichitouï cultivated area in Oita prefecture\(^{(1)}\) and Relative value of Shichitouï tatami facing\(^{(2)}\)

\(^{(1)}\)Hiroaki HAYASHI  Hiryoukagaku (2014).  \(^{(2)}\)Relative value of Shichitouï was calculated by dividing the price of 10 sheets of Shichitouï tatami-facing by the price of 60 kg of rice.  Data 1892-1984 was from “Bungo no Shichitouï” (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.  Shichitouï tatami-facing prices of 2010 and 2017 were obtained by interviewing a wholesaler by Hiroaki HAYASHI.