



2023 TOP 100 GOOD PRACTICE STORY

Title: Vine Architects Preserving the Iya Vine Bridge Every 3 Years

Destination, Country: Miyoshi City, Japan

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In the category: Destination Management Environment & Climate Thriving Communities
 Nature & Scenery Culture & Tradition Business & Marketing

The Story in a picture:

Iya Vine Bridge (Suspension Bridge Made with Vines)



Summary:

The Iya Vine Bridge or Iya Kazura Bridge, one of the three strangest bridges in Japan and designated as a National Important Tangible Folk Cultural Property, is a suspension bridge made of Japanese holly vine, 45m long, 2m wide, and 14m above the surface of the water, which used to be the only means of transportation across the deep mountain valley to the other side of the river, but now it is an important tourist resource in Miyoshi City, attracting about 350,000 tourists a year.

The Iya Kazura Bridge is replaced every three years by the local "Iya Kazura Bridge Preservation Association" due to its aging and to pass on the replacement techniques. The bridge is still being built in the traditional way, using natural materials and almost all of the work is done by hand. The material used to make the bridge is the Shirakuchi-kazura, which used to grow wild in the mountains of Iya, but in recent years it has become difficult to obtain enough of the material to make the bridge.

Therefore, a committee was set up with the Forest Service to secure materials for the replacement of the Iya Kazura Bridge, and an "Agreement on Creating a Forest that Supports Wood Culture" and an "Agreement on Securing Materials for the Iya Vine Bridge" were concluded. In addition to procuring materials to replace the bridge from the national forest in Kochi Prefecture, the committee





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is also working with local elementary and junior high school students to grow Shirakuchi-kazura seedlings and plant them in the national forest in the East Iya Valley as part of their environmental education program, aiming to procure materials locally.

By securing traditional materials and passing on the bridge-building techniques, the number of visitors -- including foreign visitors who prefer to experience the local nature and culture --has remained around 350,000 per year, although the number of bridge crossings has temporarily declined sharply due to the COVID-19 pandemic. The planting of 200 seedlings in the local natural forest has been confirmed, and there is now a certain prospect for the growth of the Shirakuchi-kazura, which is said to be 20 years and will be needed to replace the Iya Kazura Bridge, as well as for the procurement of materials locally.



Good Practice Story:

Destination description

Brief background of the destination.

The Iya Kazura Bridge in Nishi-Iya Village, Miyoshi City, Tokushima Prefecture, is one of the three strangest bridges in Japan, and is designated as an Important Tangible Folk Cultural Property. The bridge is about 45 meters long, 2 meters wide, and 14 meters high above the water, and is made of woven native Japanese pines that can weigh up to 6 tons.

Kazura-bashi Bridge is said to have been built in the old days by Heike fugitives who fled to Iya in order to prevent the invasion of the Genji by cutting off the bridge immediately. It is also said that when Kobo Daishi entered Iya, he saw villagers in trouble because their floating bridge had been washed away by heavy water. So he taught them how to build a suspension bridge using the strong and rot-resistant Shirakuchi-kazura (Salix vine).

For the people living in the deep mountain valley, the Iya Kazura Bridge, which is strong enough to withstand heavy water, was an indispensable way of life. The Iya Kazura Bridge is the fruit of the harsh climate of Iya and the wisdom of mountain life.

In the Meiji era (1868-1912), it is said that there were 13 such bridges in the East and West Iya regions, but by the Taisho era (1912-1926), they had all been replaced by wire suspension bridges, and their role had come to an end. The mayor of Ikeda, a neighboring town at the time, called for the revival of the bridge as a tourist resource, and the youths of the Nishi-Iya Zentoku and Koshita youth groups (later the Iya Kazura Bridge Preservation Association) rebuilt the bridge using traditional materials and construction methods at its current location (Zentoku, Nishi-Iya Mountain Village). This was in March 1928. There were large trees on both banks of the bridge that served as fulcrums, and nearby was a waterfall basin necessary for processing shirakuchi-kazura, making it a suitable location for the traditional method of building the bridge, as well as a suitable road for living between the villages. Since 1939, the bridge has been rebuilt every three years, and in order to welcome visitors as a tourist resource, we have been focusing on the traditional Iya Kazura Bridge production process, while also considering the safety, strength, and durability of the bridge. We have been planning a bridge crossing experience as a tourist resource, in order to fund the maintenance, repair, and rebuilding costs of the bridge. In 1966, a fee of 50 yen was charged to cross the bridge to raise funds for future maintenance, repair, and replacement of the bridge.

Currently, the bridge is being replaced once every three years by the Iya Kazura Bridge Preservation Association to replace the aging bridge and pass on the replacement technology as a tourist resource that allows visitors to experience the life, history, and culture of Iya, the "unexplored region" of Shikoku.

Issues faced

Problems/issues solved with the Good Practice Story.

The Iya Kazura Bridge, a nationally designated Important Tangible Folk Cultural Property, is constructed of shirakuchi-kazura, which requires a large amount of plant materials.

In order to preserve and repair important cultural properties, it is necessary to secure materials of the same variety and quality as in the past, as well as to hand down the replacement techniques and secure the people who will be responsible for the work. In recent years, however, it has become difficult to secure stable supplies of replacement materials for such repairs.

This situation has created a significant cost burden, requiring not only locally produced materials, but also materials from outside the prefecture.

Methods, steps, and tools applied

Solutions implemented to address the sustainability problems or issues.

The following steps were taken to secure materials for the Iya Kazura Bridge:

In 2008

Miyoshi City, Tokushima Prefecture, and the Tokushima Forest Office of the Shikoku Regional Forest Office set up an executive committee to secure materials to replace the Iya Kazura Bridge, and asked the Iya Kazura Bridge Conservation Association to provide free of charge the Shirakuchi-kazura, which was no longer available in the city, from the national forest in Kochi Prefecture. The Kazura Bridge Preservation Association will procure these trees.

In addition, to secure local resources, we concluded a "Forestation Agreement to Support the Culture of Trees" and began working with local children to grow Shirakuchi-kazura saplings and plant them in the national forest in Higashi Iya, Miyoshi City.

In 2017

The saplings grew and were planted in a natural forest, but due to their growth environment and the fact that they were not thriving due to feeding damage caused by deer, the Faculty of Agriculture of Kagawa University, Tokushima Forest Office, and Miyoshi City concluded an "Agreement on Securing Iya Kazura Bridge Shirakuchi-kazura Materials" and received guidance from Professor Kataoka of Kagawa University, an authority on the propagation and cultivation of plants in the genus *Matatabi*.

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To cultivate the saplings, they will be grown from cuttings and planted in the East Iya National Forest for about 5 years together with elementary and junior high school students.

Under the guidance of Professor Kataoka of Kagawa University, they took measures such as taking into consideration the conditions (drainage, sunlight) of the area where the Shirakuchi-kazura were planted and maintaining deer nets to prevent feeding damage by Japanese deer, and the trees have successfully taken root and are growing well.

Over the past 15 years, approximately 1,500 trees have been planted, and approximately 200 trees have been confirmed to be thriving.

Key success factors

Critical elements that led to successfully solving the issues.

It takes about 20 years to cultivate Shirakuchi-kazura as a material for replacing the Iya Kazura Bridge and other bridges. In addition, there are many issues and problems in the cultivation process.

Therefore, in order to solve these problems and issues and to ensure a reliable and stable supply of shirakuchi-kazura as a replacement material in the future, we obtained technical support from the Faculty of Agriculture, Kagawa University, an authority on propagation and cultivation of matatabi plants. The project is working to cultivate shirakuchi-kazura with guidance on how to take cuttings, how to manage sunlight and water during the seedling growth process, and how to manage the plants after planting in the forest.

By having local children participate in the planting, the project is linked to tree education, environmental education, and the passing on of tree culture.

The Miyoshi City Sarukuchi Kazura (also known as "sarunashi") Council has also decided to commercialize the fruit of the sarunashi, and has recruited farmers to cultivate saplings on abandoned farmland. The Miyoshi City Sarunashi Council is also active in the "National Sarunashi/Kokuwa Summit Council" and is working to promote regional development through the use of saplings.

Lessons learned

Challenges faced while implementing the Good Practice and their solutions.

- Continuation of replacement work
 - Passing on replacement techniques by the Iya Kazura Bridge Conservation Society

- Securing replacement materials
 - Procurement from national forests in Kochi Prefecture
 - Planting in national forests in the city Good conditions for the growth of Shirakuchi-kazura Deer nets

- Time of replacement work
 - The replacement work will be carried out during the off-season of winter, making the replacement work a tourism resource.

- Main benefits of the project
 - Stable supply of tourism resources, shortening of time and safety of replanting work, securing of materials for replanting
 - Seedling production by local children, planting in natural forests, environmental education, and tree education
 - Potential in developing secondary products (juice, wine, etc.) from the fruit of the shirakuchi-kazura (sarunashi) plant

- Spread to other city policies
 - Declaration of "Wood Start" (February 16, 2019) Wood education project to give locally produced and consumed wooden toys as birthday gifts
 - Miyoshi City forestation ordinance (2019.6)
 - Miyoshi City Basic Plan for Forest Development "Thousand Year Hide and Seek" Forest Concept (2021.3)

- We believe that the success of this project has mainly benefited the following stakeholders:
 - Human resource development and the securing of personnel for the "Iya Kazura Bridge Guarantee Association," which is responsible for the repair and replacement of the bridge and for passing on the skills.
 - Increase in the number of visitors to the city and its surrounding tourism-related businesses due to the recovery in the number of tourists.
 - Inherit "tree culture" by planting trees by local children
 - Elimination of abandoned farmland and increase in motivation of farmers to produce by utilizing the fruit of the Japanese honeysuckle.

Achievements and Results

Direct and indirect results of the Good Practice.

- By securing traditional materials, we were able to continue the preservation and usage of the Iya Kazura Bridge as a cultural asset and tourist resource.

- By offering the experience of crossing the bridge for a fee, we were able to preserve, manage, maintain, repair, and utilize the cultural facility as a tourism resource.
- The "Shirakuchi-kazura" (white cedar) planted 1,500 trees over the past 15 years, but the trees did not grow well.

However, thanks to advice from Dr. Kataoka of Kagawa University through a tripartite agreement, 200 trees have been successfully planted.

- The number of inbound visitors has been increasing year by year as they are interested in the nature and historical culture of the area, such as the Iya Kazura Bridge.

Tips for other destinations

Your suggestions or recommendations for other destinations facing the same issues or implementing similar solutions

- Agreements by the city, state, and academia to protect local treasures
- Invite local children to participate in the inheritance of local culture
- Implement projects with a broad perspective, not only the project in question, and spread it to other policies

(Utilization of sarunashi nuts, rehabilitation of abandoned farmland, forest maintenance, conversion to natural forests,

Participation in the "Kokuwa Summit," development of tree-education programs, etc.)

Recognitions and Additional references

Recognitions and awards the Good Practice received and supporting evidence.

Miyoshi City Official Tourism Site "Kazura Bridge in Iya"

<https://miyoshi-tourism.jp/spot/iyanokazurabashi/>

Agency for Cultural Affairs Database of National Designated Cultural Properties, etc. Production process of the vine bridge

<https://kunishitei.bunka.go.jp/heritage/detail/312/500>

Ministry of Land, Infrastructure, Transport and Tourism

https://www.mlit.go.jp/sogoseisaku/region/teдукuri/list/pref/list_36tokushima.html

City newsletter Miyoshi, special feature "Passing on the Kazura Bridge to the Next Generation" (Japanese only)



https://www.miyoshi.i-tokushima.jp/fs/9/1/2/1/8/_/__.pdf&sa=U&ved=2ahUKEwiki96t3dD_AhU-mIYBHRcAD8gQFnoECAAQAg&usg=AOvVaw3 xXadSafVsi_99EmjuLAzI

Shikoku Regional Forest Office, Shikoku District Forest Office, Shikoku District Forest Office, Shikoku District Forest Office, Shikoku District Forest Office, Shikoku District Forest Office, Shikoku District Forest Office
<https://www.rinya.maff.go.jp/shikoku/tokusima/shirakutikazura.html>

Iya Kazura Bridge Story Hall, which introduces how the Kazura Bridge was built and life in the Iya Valley

https://www.miyoshi.i-tokushima.jp/fs/9/1/1/6/0/_/28____.pdf&sa=U&ved=2ahUKEwiki96t3dD_AhU-mIYBHRcAD8gQFnoECAYQAg&usg=AOvVaw3Rbx3 F8IOifDyiQRzav1kj

