



# 2023 TOP 100 GOOD PRACTICE STORY

**Title:** Explore Penghu's Nasca Lines - Guardians of Stone Weirs.

**Destination, Country:** Penghu National Scenic Area, Taiwan

**Submitted by:** Shiu-Ying Tsai / Division Chief of Planning Section / Destination Coordinator

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

**The Story in a picture:**

Nasca Lines scattered across the ocean of Penghu.



**Summary:**

The stone weirs in Penghu's Jibei Island were once an important fishing method for the ancient people, utilizing the principles of tidal ebb and flow and fish migration to capture abundant seafood from the ocean. However, with technological advancements, stone weirs have ceased to be the primary fishing method for fishermen, leading to their gradual decline. In order to preserve this cultural heritage, we have established environmental education facilities, organized promotional activities during the stone weir season, and engaged in the preservation and application of stone weir cultural skills and traditions. Through these efforts, we aim to achieve cultural preservation while also integrating various community groups to promote sustainable local economies.



## Good Practice Story:

### Destination description

*Brief background of the destination.*

Penghu County has 609 stone weirs, totaling 133.1km in length. Jibei's earliest stone weir, built around 1700, consists of 101 weirs spanning 22.4km. They are the most numerous and densely distributed in the county, earning Jibei the title of "hometown of stone weirs." Jibei Island, located about 5.5km north of Penghu's main island, features various single and double-curved stone weir patterns, resembling the enigmatic Nazca Lines from above.

The construction of these weirs dates back to ancestral knowledge, with long-term observations of tides, fish migration, and local stone resources guiding the stacking techniques. Representing a sustainable fishing method, they reflect the island residents' wisdom and adaptation to the natural environment. In 2008, the Penghu County government officially recognized them as cultural assets, confirming their historical significance.

### Issues faced

*Problems/issues solved with the Good Practice Story.*

1. The mechanization of fishing methods has replaced traditional fishing practices, rendering stone weirs obsolete in terms of their fishing function. As a result, they have fallen into disrepair over time, and there is no longer investment in their restoration, leading to the gradual disappearance of traditional culture.
2. Being a second-level outlying island in Penghu County, Jibei is located in a remote area with limited transportation access and is susceptible to weather conditions. This unfavorable situation hinders the attraction of tourist crowds, resulting in scarce opportunities for economic development. The majority of the younger generation has left Jibei in search of employment, leading to a gradual decline in the local population. Additionally, the aging of stone weir craftsmen and the lack of young individuals to inherit the restoration techniques further exacerbate the situation.
3. Repairing stone weirs and promoting culture need cooperation from various parties. For the cultural promotion of stone weirs, consent from multiple owners is vital for using outdoor sites. Contacting local instructors, tourism operators, and guides is crucial for sharing relevant knowledge. Local briefings might be needed for opinions. Past stone weir construction involved manpower from families and has evolved into fishing organizations. Restoring stone weirs requires Penghu's Cultural Affairs Bureau to develop plans following cultural asset preservation laws, led by skilled artisans.

### Methods, steps, and tools applied

*Solutions implemented to address the sustainability problems or issues.*

1. In 2008, the Penghu County Government designated the Jibei stone weirs as a cultural landscape, allowing effective resource allocation for maintenance. Following the Cultural Heritage Preservation Act, two teams of about 30 people, including fish weir keepers and skilled craftsmen, were employed for restoration. Between 2016 and 2022, 37 stone weirs were successfully restored with an annual budget of approximately NT\$800,000 to NT\$1,000,000 for preservation.
2. After a year of field surveys and reviews, efforts to promote the cultural education and heritage of stone weirs paid off when it received certification as an environmental education facility from the Environmental Protection Administration on December 29, 2014. Since 2015, cultural training for stone weir instructors has been conducted on-site, with 19 participants gaining

qualifications as lecturers. Two individuals emerged as main lecturers for the stone weir environmental education courses. Further training programs were held in 2018 and 2023, certifying 25 individuals and creating a local talent database for enhancing and expanding stone weir environmental education capacity.

3. In 2022 and 2023, the techniques of stone weir craftsmanship were integrated with tourism development, and a hands-on stone weir craftsmanship trail experience activity was conducted at the Chihsiyuan Waterfall Scenic Area. A total of 74 people from the local community, residents, and colleagues were invited to participate. Following the traditional stone weir craftsmen of Jibei, they worked together to create a stone trail of approximately 50 meters using stone weir craftsmanship techniques, fostering sustainable education in traditional craftsmanship and preserving the basalt landscape.
4. Organizing a series of themed seminars on marine culture, conducting oral interviews with local elders and artisans, engaging in interviews with domestic and international scholars, and promoting Stone Weir Festival activities to integrate and revitalize local resources.

### Key success factors

*Critical elements that led to successfully solving the issues.*

We integrate various community groups to overcome the geographical disadvantages of the outlying island and promote local sustainable operation:

1. Collaborating across communities, industries, schools, and the county government, we organize the Stone Weir Festival to cultivate knowledge of marine culture, increase local tourism, and have the Pingtung County Government lead the stone weir restoration project.
2. The public sector guides and allocates resources to conduct teacher training and workshops, combining them with promoting the Stone Weir Festival itinerary, thereby continuing the inheritance of stone weir cultural knowledge.
3. Create the Penghu Stone Weir Season tourism brand to attract more people to recognize the cultural value of stone weirs. Utilize diverse channels to strengthen the marketing of sustainable culture and the awareness of the need for cultural heritage preservation. Drive overall local economic benefits, create more job opportunities, and provide new opportunities and connections for the local community through the promotion of stone weirs. By benefiting from stone weirs, the continuous restoration and preservation of stone weir culture can be achieved.

### Lessons learned

*Challenges faced while implementing the Good Practice and their solutions.*

1. It is necessary to prioritize promoting local economic development in order to attract talented individuals to participate in the stone weirs restoration project.
2. To avoid conflicts of interest, it is important to communicate and integrate the diverse opinions of stakeholders, aiming for balanced benefits.
3. Merely focusing on site restoration without continuous promotion would make it difficult to maintain cultural awareness and sustainability.
4. By applying the restoration techniques of stone weirs to the repair of trails in tourist areas, we can not only preserve the artistry of stone weirs but also create a sustainable and immersive experience for visitors.

### Achievements and Results

*Direct and indirect results of the Good Practice.*

1. Through the continuous restoration project conducted by the Penghu County Government, a total of 37 stone weirs, around 7.5km in length, have been restored between 2016 and 2022.

- The Jibei Stone Weir Cultural Center has been certified as an environmental education site by the Environmental Protection Administration since 2014. The certification has been extended until 2024, providing a venue for the public to learn about stone weir culture and cultivate environmental sustainability thinking.
- We are committed to cultivating assistant educators for stone weir environmental education. In 2023, we have already trained 17 assistant educators.
- From 2015 to 2021, 1,491 people joined the Jibei Environmental Education Program. In 2022, we introduced the "Stone Weir Season," combining environmental education with stargazing. Despite Covid-19 challenges, we attracted 487 participants in 21 sessions, with 71% from outside the county. This created the "Penghu Stone Weir Season" brand, deepening Jibei knowledge and boosting the local economy. Benefiting local industries and interpretation services, it led to increased tourism during the Stone Weir Season. Fostering new connections between people and stone weirs was the primary goal of this initiative.
- Since the inception of the stone weir environmental education program in 2014, a total of 90 sessions have been conducted. The estimated overall economic value brought to Jibei is approximately NT\$2 million. This income supports the ongoing involvement of local elders and community workers in the restoration of stone weirs, and local manpower continues to serve as educators to promote stone weir education.

### Tips for other destinations

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

- Take stock of the various challenges faced.
- Identify stakeholders through the identified problems and engage in cross-sector collaboration with them to develop solutions that balance cultural, economic, and environmental considerations.
- Start from local advantageous resources, cultivate interpretive personnel, promote creative and sustainable itineraries that integrate cultural heritage, and elevate the issue from mere interest generation to being seen, valued, and ultimately attracting more participation.
- Take actions aimed at creating cultural longevity, environmental conservation, and sustainable local economy.

### Recognitions and Additional references

*Recognitions and awards the Good Practice received and supporting evidence.*

- 2018 Jiabei Stone Weir Environmental Education – Highlights  
<https://www.youtube.com/watch?v=rviM0n7F4hQ>
- 2018 Jiabei Stone Weir Environmental Education - Teaching Edition (Including Elderly Records)  
<https://www.youtube.com/watch?v=XJCv-nKQFGE>
- 2019 Jiabei Stone Weir Environmental Education - Accessibility Edition  
<https://www.youtube.com/watch?v=8M-NBgLuLrl>
- 2023 Jiabei Island Stone Weir Season - KOL Exploration Edition  
<https://www.youtube.com/watch?v=tu2AxrtKQy4>
- 2023 The hands-on stone weir craftsmanship trail experience activity  
[https://drive.google.com/file/d/1Xp0\\_PqviiqeodSkDGRUTgzSJ25lcmUz/vi](https://drive.google.com/file/d/1Xp0_PqviiqeodSkDGRUTgzSJ25lcmUz/vi)
- 2022、2023 KPI and Satisfaction Survey of Stone Weir Season  
[https://drive.google.com/file/d/1V-q7dSo3u-L9QXDINTBkckMQqZkjqc75/view?usp=drive\\_link](https://drive.google.com/file/d/1V-q7dSo3u-L9QXDINTBkckMQqZkjqc75/view?usp=drive_link)



2014-2019

2019-2024