



2022 TOP 100 GOOD PRACTICE STORY

Title of the Story: The Capacity Management Conducted to Guishan Island

Destination Name: *(include any state, province or region)*

NEYC - North East and Yilan Coast National Scenic Area

Country: Taiwan

Submitter name: Cheng Hui, Hung

Email address: hui-neyc@tbroc.gov.tw

Position: Green Team executive

Submission category: *(Please check one of the boxes that indicates the focus of your story)*

Please find detailed information for the categories below in the Top 100 training module 'Good Practice Story'.

- ☒ Governance, Reset & Recovery
- ☐ Nature & Scenery
- ☐ Environment & Climate
- ☐ Culture & Tradition
- ☐ Thriving Communities
- ☐ Business & Marketing

Find detailed instructions for submitting good practices in the Top 100 training module "Good Practice Story".

Should you have any questions on your submission please refer to our FAQ page or contact top100@greendestinations.org





DESCRIBE YOUR GOOD PRACTICE STORY

Address each aspect of your good practice story in the different sections being specific including relevant quantitative and qualitative information.

Issues faced

What was the problem/issue solved with the good practice?

Guishan Island, situated in the northeast corner of Taiwan, is 10km off the east coast of the port of Wushi Fishery Harbor in Yilan County. The island is about 1.7 kilometers long, with an area of approximately 2.841 square kilometers. It got the iconic name - Turtle Island- by its shape like a turtle when looking from the land ("gui" in Mandarin is "turtle"). Before 1977, the maximum population was more than 700, mainly engaged in fishing activity. Later, some of the population was relocated to the main island of Taiwan in Toucheng Township of Yilan due to the hardships associated with living on the island. After the government abolished Taiwan's martial law in 1999, the authority transferred to the Northeast and Yilan Coast National Scenic Area Administration (NEYC, one organ of the Tourism Bureau of Ministry of Transportation and Communications). On 1st August 2000, NEYC opened the island to tourists. When it opened to tourists, the NEYC decided to position the island as an ecological island. To avoid mass tourists destroying the ecological environment of Guishan Island, NEYC controlled the total number of visitors to the island at the time of its opening. They conducted periodic reviews and evaluations and gradually revised the limit on the number of visitors to the island. NEYC also established an online reservation system and a tourist-charging mechanism and developed a unified regulation on island-going behavior to institutionalize management to achieve the goal of balanced tourism and ecological conservation. The challenges include:

1.Environmental Impact:

Guishan Island is surrounded by the sea, with limited water sources and a lack of electricity, and daily necessities need to be transported by sea. Tourist activities exert pressure on the natural environment, including sewage discharge, artificial garbage disposal, noise, tread on land/trails, and increasing the risk of invasive species.

2. Social and Economic Benefits to Local Community Impact:

The surrounding waters of Guishan Island is a vital Fishery area. In recent years, the yacht and sailboat carry passengers for stand-up paddling and diving around Guishan Island. Nonetheless, Whale watching, island tours on boats, and water recreation activities share the same water with fishers who initially fished around Guishan Island; they interfere with each other and cause conflicts.

3. Involving the joint operation and management of multiple units:

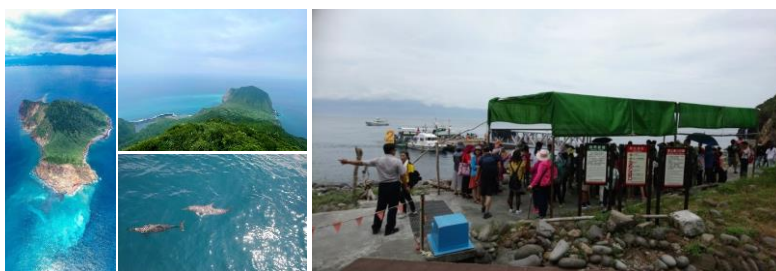




Yilan County has jurisdiction over the Guishan Island, and all lands are public domain. So far, no land under the NEYC authority. The recreation fishery permit, the tour price, and activities in the waters around Guishan Island are in charge of different agencies except NEYC. NEYC is responsible for the island's recreational tourist behaviors and tourism business management, including the issuance of vessel permits and tour-interpreter certificates. Overall, tourism developments in Guishan Island involve multiple parties in the administrative system, and each party needs to learn how to collaborate and build a cooperative scheme.

4.The resident's vision for the development of Guishan Island:

Between 1974 and 1977, residents of Guishan Island gradually moved to mainland Taiwan. After no one lived on the island, the Taiwan government reclaimed the right of land use, and most of the original houses and buildings were demolished and disappeared. People who used to live on the island hope NEYC can value their opinions, putting the idea of local culture into practice when having tourism facilities construction, and make the Guishan Island a culture-experience area.



Methods, steps and tools applied

How was the good practice implemented?

The recreational carry capacity control, developed and operated by NEYC, has been reviewed and amended over the years. Below is the current system:

1. Due to the blustery winds and treacherous sea conditions that come with the northeast monsoon; and the ecological recovery on the island, it opens up the area to daily visitors .from March to November. Besides, no visitor can stay overnight. In addition, an online system has been set up for applying to visit the island. In 2000, the visitor capacity control number was 250 persons per day, then gradually rose to 1800 (2015) until now.
2. Under the "Regulations for Guishan (Turtle) Island Ecological Tour", NEYC issues a permit to dock on Guishan Island. For vessel operators, they should obey the provisions of the regulation, as well as other mechanisms such as reporting the





- departure time, number of people, batch number, and ticket-selling.
3. NEYC implemented zone management on Guishan Island. Only the south and north shore piers of the Guishan Island and the trails around Guiwei Lake (literally turtle tail lake) are opened for tourism purposes. The rest of the area and places without trail facilities are only open for applied researchers (zone management is shown at <https://events.necoast-nsa.gov.tw/Coast/Articles.aspx?a=2656>).
 4. Code of conduct was established to maintain the island's ecosystem and set the norm for tourist behavior, including the "Regulations for Guishan (Turtle) Island Ecological Tour", and "Instructions for Applying for Ecotourism on Guishan Island". The " Fee-charging Regulations For Traveling Guishan Island " was established; while NT\$40 is for environmental cleaning and maintenance, NT\$60 is for landing facility maintenance.

The NEYC takes the following methods to make sure the controls mentioned above:

- 1) Establish an online system for tourists to apply for landing permits: (<https://events.necoast-nsa.gov.tw/Coast/>)
- 2) On-site Security Guard mechanism: NEYC owns its security guard team. During the island's opening season, team members take shifts to stay on the island for managing purposes. They responsible for the management of the recreation behavior of tourists on the island, communication and coordination with the coast guard and vessel owners to ensure the total amount control, assure the operation procedures for landing fees and the relevant norms for visiting the island are implemented, and report to ensure all the facilities are well-functioned.
- 3) Enhancing the recognition and support of tourism operators:
 - Training and certification mechanism for tour guides: To obtain the Guishan Island tour-guide qualification are required to be trained by the NEYC training course and pass the AED+CPR test held by Yilan County Government Fire Department. Tour guides who need to interpret on ferries and the island must be licensed by NEYC twice a year.
 - Holding themed tours and activities: Using themed activities connect ecotourism tours to promote environmentally friendly tourism behaviors. Inviting vessel owners, non-government organizations, and the public to beach cleanup activities before the opening of Guishan Island: In 2022, 9 whale-watching tour operators in Wushigang, Yilan County, 90 vessel owners, 30 fans from the NEYC FB pages, and four public affairs agencies (including NEYC) participated in this event.
 - Using the whale-watching app, let tourists, operators, and other relevant personnel contribute to whales and dolphins monitoring: NEYC appointed the Taiwan Cetacean Society (TCS) for the Guishan Island whale-watching training program between





2017 and 2019. During that time, TCS developed the " Whale Finder " mobile app. One can upload relevant records when witnessing dolphins/whales and check whale watching information and species knowledge. In addition, for researchers, interpreters, and tour operators who signed in as members, this app provides a detailed recording function. The system then exports these data to a public whale watching map platform, providing the survey result and simple statistic data.

Key success factors

What helped you tackle the issues?

1. Dynamic adjusts recreational carry capacity control figures: To protect the ecological resources of Guishan Island while maintaining high-quality tourism services, it needs to have a carry capacity control. Through scientific methods to assess the capacity, as well as to consider the recreation needs of tourists, the NEYC service capacity, and the livelihood of residents in the surrounding area. In doing so, the daily visitor numbers were gradually reviewed and adjusted.
2. Collaborating with different agencies: 5 agencies share the jurisdiction of Guishan Island and the surrounding waters. In 2022, 18 boats have permits to dock at the Guishan Island. It needs every agency's coordination and collaboration to reach a satisfactory outcome. Various government units coordinate cooperative management mechanisms. In response to the controversy over the use of the common area by recreational fishing boats and yachts happened in recent years in the Milk Sea area. NEYC continues to pay attention to and collaborate with Yilan County Government, focusing on sharing resources without affecting the safety and fishery rights.
3. The original residents' support: In response to the promotion of ecotourism on Guishan Island, individual interviews with the mayor and elder of Guishan Village in 2015 showed that it should still limit the number of tourists to maintain the quality of tourism; in addition, they expected that there should be more culture-awareness when promoting ecotourism, increasing community participation, and guiding community development to operate and maintain the tour independently.

Lessons learned

While implementing the Good Practice what challenges were faced, and how were they overcome?

1. There will be a shortage of on-site management workforce in the future: NEYC has its on-site security guard with a total of 7 members. Due to the change in the government system, the team members are downsizing through attrition. A mechanism for training and replacement of personnel needs to be ready in an early stage.
2. Balance between Academic Evaluation and Local Economic Development: Based on the 2003 Guishan Island visitor Capacity Assessment Study results, In 2009,





recalculated the fair visiting number to under 600 persons daily. This number came by considered that tourist activities are limited to the scope of recreational facilities, therefore using the facility carrying capacity (150 persons per time) and social carrying capacity (127 persons per time) as the basis for measurement, then calculated by divided a day into four sections for calculation. According to the 2009 Visitor Satisfaction Survey (limited to 500 people on a single day), 56% of visitors believe that the number of visitors needs to be increased. Using carrying capacity control and zone management, NEYC distinguished tourist activities from the rural area, thereby reducing the negative impact of human interference. It also considers the livelihood of passenger fishing boats, meets the tourism needs of tourists on the island.

3. It is not easy for a tourism agency to establish a long-term monitoring system for conservation: NEYC is a tourism organization under the administrative system, and the main task is to develop the tourism industry, to implement resource surveys for planning and tourism construction purposes, to promote sustainability for local tourism industry, and to ensure the safety of tourists; the long-term monitoring and research of the natural environment is mostly handled by agricultural units which have relevant professional technology and capabilities to conduct the projects. In the case of Guishan Island, the NEYC management department is responsible for the application for long-term monitoring and research of the natural environment by groups, and the results of the study shall be a copy to NEYC. NEYC planning department also points to professional institutions that conducted surveys.

Results, achievements and recognitions

What were the qualitative and quantitative results of the good practice?

1. With a daily limit of 1,800 people, the number of tourists grew from 2016 to 2019 (shown in Figure 1), with an average of 130,000 visitors entering the island annually. In the opening months, from March to November, the average number of tourists in a single month is less than 20,000. The number then divided into a daily base (about 667 passengers per day), showed slightly higher than the number of tourists assessed by the 2003 study. 2020 Covid-19 pandemic started to affect the world, but the number of tourists in 2020 was still increased by 5.6% compared to 2019. In 2021, with the epidemic prevention needed to close the island during the opening months, the number of tourists dropped by 41.2%.
2. As for the animal and plant resources survey in Guishan Island, a 2021 plant resources investigation recorded five species that were listed on the Near Threatened (NT) category in the red list of vascular plants of Taiwan, including *Liodendron formosanum*, *Diospyros discolor*, *Chionanthus ramiflorus*, *Rhaphiolepis integerrima*, and *Hypericum formosanum* (Chen Ziyang et al., 2021). Results from





the survey held from July to November 2020 and March to May 2021 showed that, compared with the historical record (119 species), five new species of butterflies were added (Yang Yuezi, 2022) ; From 2018 to 2019, the image records and fecal of a group of Formosan flying fox (*Pteropus dasymallus formosus*), listed as endangered species, has increased (Lin Qinglong et al., 2019).

3. International Exposure: In 2015, it was listed on the travel website "When on Earth" as one of the 12 most famous naturally formed islands worldwide.
4. NEYC appointed TCS to conduct tourists' satisfaction survey toward whale watching tour operators with the sustainable practices in 2019. The result showed that more than 50% of tourists felt satisfied with the operators, but these operators still need to strengthen their environmental protection and free-from-plastic actions. NEYC should communicate with tour operators through regular training or ecological education activities.

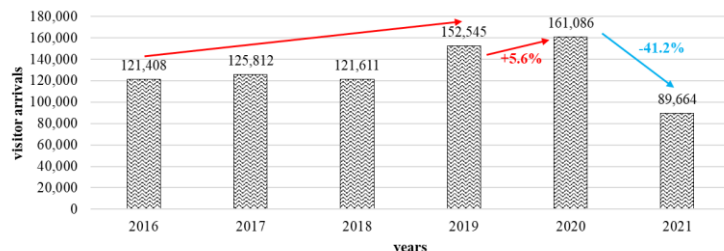


Figure 1. Changes in the number of visitor arrivals to Guishan Island from 2016 to 2021.

Additional references

Provide links to further information. Pictures and videos should be available for download either from YouTube,

1. A Taiwanese Island Boosts Tourist Capacity – Sustainably (2021 English)

<https://destinationcenter.org/dsr-introduction/destination-stewardship-report-winter-2021/a-taiwanese-island-boosts-tourist-capacity-sustainably/>

2. Video of Turtle Island (English)

<https://youtu.be/d0nXlQtJp1s>

3. Tour information of Turtle Island (English)

<https://www.necoast-nsa.gov.tw/FileAtt.ashx?lang=1&id=1181>

4. Study on recreational carrying capacity in turtle island (2004)

<https://ndltd.ncl.edu.tw/cgi-bin/gs32/gsweb.cgi?o=dnclcdr&s=id=%22091SHU05571023%22.&searchmode=basic>

