

Sustainable Development Pathways of Qinzhou Lingshan Giant Zongzi (Intangible Cultural Heritage Product) from the Perspective of Linear Cultural Heritage

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Abstract: The Pinglu Canal is a national “project of the century” that links the Xijiang River’s Golden Waterway to the Beibu Gulf International Gateway Port, basically creating a north-south linear cultural heritage corridor. Lingshan Giant Rice Dumpling is a pretty iconic ICH food item from Qinzhou, Guangxi. It already has a basic eco-recycling chain going, rooted in local farming. But after doing field research in Lingshan County, Qinzhou, we found some real problems when it comes to turning Lingshan Giant Rice Dumplings into an industry. The cultural symbols do not really match up with what the product actually does, the eco-recycling chain is not well connected yet, and along that linear cultural heritage route, there is not enough momentum to drive things forward. So from a linear cultural heritage perspective, this paper tries to figure out a sustainable development path — the core idea being “cultural anchoring, ecological closed loop, linear connection, community co-benefit.” In practice, that means coordinating policies, restructuring the industrial chain, and rebuilding cultural value — so Lingshan Giant Rice Dumpling stops being just an everyday snack and becomes a new brand: “ecological canal + ICH product.” The goal is to help ICH food products build stronger brands, set up representative ICH brands along the canal, grow their reach, and offer some practical references for how intangible cultural heritage can develop sustainably along the Pinglu Canal.

Keywords: Linear cultural heritage; Pinglu Canal; Lingshan giant rice dumpling; Intangible cultural heritage products; Sustainable development

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1. Introduction

The Pinglu Canal is a huge national project. Once it opens up, it will link Southeast Asia straight to the Guangdong-Hong Kong-Macao Greater Bay Area, and drive economic, cultural, and environmental growth across the whole region. Lingshan Giant Rice Dumpling is a well-known ICH item from Lingshan County,

Qinzhou. Since it uses locally grown ingredients, it already has a pretty solid eco-friendly production cycle in place. Once the canal starts shipping, local trade is going to boom. That means more chances to share our traditional culture, more jobs, and more foreign trade — all of which help these heritage food products stick around for the long run.

The author went out to the field and had long talks with Tai Xiang Zong Wang, a really well-known local rice dumpling maker. What the author found is pretty clear: if people want Lingshan Giant Rice Dumplings to actually compete in the market and keep this heritage going, they need way stronger and more well-rounded support from everyone involved.

Lingshan Giant Zongzi is a famous traditional food and intangible cultural heritage from Qinzhou, Guangxi. Its production process is deeply connected with the local agricultural system. From growing ingredients and raising livestock to making zongzi and enjoying them during festivals, a complete basic ecological cycle has been formed locally.

Historically, Qinzhou has maintained close trade connections with the Guangdong-Hong Kong-Macao Greater Bay Area and neighboring provinces, both by water and by land. The ingredients used in Lingshan Giant Zongzi have long been important products in regional trade.

After the Pinglu Canal opens, this traditional heritage product will get a historic chance to rejoin regional and even international trade networks. The canal will lower transportation costs, widen sales channels, create more local jobs, and strengthen international trade connections ^[1].

However, as intangible cultural heritage products are produced on a larger scale and become more standardized, they also face new challenges. These include the loss of traditional cultural characteristics, the breaking of ecological cycles, and products becoming too similar to one another.

Based on the field research, this paper tries to answer three big questions. First, under the linear cultural heritage framework, how do people actually reorganize the way ICH products are made, distributed, and sold? Second, what problems will Lingshan Giant Zongzi run into as it tries to grow along the Pinglu Canal? Third, how can people use policy support to upgrade the whole industrial chain, bring back the cultural value, and build a real, workable model for these heritage products to develop sustainably?

Through all this analysis, the study came up with some practical suggestions — basically to help heritage items along the canal move beyond just being “protected” and actually start thriving.

2. Theoretical foundations and analytical framework

2.1. Linear cultural heritage

The idea of linear cultural heritage in China was first put forward by scholar Shan Jixiang in 2006. It refers to cultural heritage that spreads along a “line,” instead of being concentrated at a single site or within a certain area.

In 2008, ICOMOS (International Council on Monuments and Sites) published the Charter on Cultural Routes. It defines cultural routes as channels that allow people to communicate and interact, carrying important shared values.

Famous examples such as the Beijing-Hangzhou Grand Canal, France’s Canal du Midi, and Germany’s Rhine River all show that linear cultural spaces do more than just connect scattered cultural resources ^[2]. They also create a “corridor effect” that helps industries work together, encourages public participation, and

supports environmental protection.

The field research on the Qishi Hub section of the Pinglu Canal shows that the canal has clear features of linear cultural heritage. It can bring three major benefits to intangible cultural heritage products along its route.

First, in transportation, it lowers shipping costs. Second, in tourism, a “canal + cultural tourism” model can attract steady numbers of visitors. Third, in branding, being linked with the canal improves product recognition and cultural value.

2.2. Sustainable development of intangible cultural heritage products

The UNESCO Convention states that protecting intangible cultural heritage requires keeping it alive and ensuring community involvement.

It says heritage must remain dynamic and continuously recreated, with full participation from local communities.

The key idea is: heritage should not only exist in records. It must stay active in people’s daily lives to achieve sustainable development ^[3].

So, for intangible cultural heritage to grow sustainably, it must shift from passive protection to active development. People can build a positive cycle that brings together community participation, living inheritance, industry growth, ecological protection, and policy support. These five elements work as one integrated system to keep heritage strong from within. Lingshan Giant Zongzi, a regional intangible cultural heritage item, is more than just a cooking skill. As Zhang Longfen — known as “Taixiang Zongzi King” — puts it: “No zongzi, no New Year.” Traditions like making zongzi on New Year’s Eve and offering them to ancestors give this food deep cultural life.

If people only treat the craft as something to “protect” without reviving the festive traditions behind it, the heritage will become stiff and lifeless. To truly help Lingshan Giant Zongzi develop sustainably, people need to think bigger, innovate, and move beyond passive protection.

3. Development status and sustainability challenges of Lingshan Giant Zongzi

3.1. Overview and industrial foundation of Lingshan Giant Zongzi

Lingshan Giant Zongzi is named for its big size, large bamboo leaves, and rich fillings. Traditional zongzi uses glutinous rice, mung beans, and pork. They weigh from 3 jin up to 138 jin and carry deep cultural meaning. The saying “No zongzi, no New Year” represents family reunion. Also, “zong” sounds like “zhong” — meaning success — so it stands for wishes for good luck in study and work.

After becoming a regional intangible cultural heritage in 2008, homemade zongzi began to be sold commercially. “Taixiang Zong King” is a famous and well-run zongzi factory in Lingshan County. Under the inheritor Zhang Longfen, traditional skills have been standardized. The factory buys local ingredients to support nearby farmers: fresh glutinous rice from Xinxu Town, and pork from local free-range pigs.

This forms a sustainable ecological cycle: leftover bean dregs and rice-washing water feed the pigs, and pig manure fertilizes the bamboo fields.

The factory also creates lots of local jobs. It hires middle-aged and elderly residents, as well as left-behind women from nearby villages, to wash bamboo leaves, sort rice, wrap zongzi, and do packaging work.

At the end of 2023, during the canal construction, “Taixiang Zong King” made a huge 138-jin zongzi

to thank the canal workers. This event helped build confidence in promoting the “Canal + Giant Zongzi” cultural heritage brand along the waterway.

3.2. The three major dilemmas facing sustainable development

Field research on Thai Fragrant Zongzi King reveals that Lingshan Zongzi is trapped in cultural, market, and inheritance dilemmas, which hold back its sustainable development.

Da Zong sources all raw materials like zong leaves, mung beans, and glutinous rice from small local farmers. While this boosts local household income, it creates notable ecological and economic challenges.

The Thai Fragrant Zong King factory enforces strict hygiene protocols, including staff protective gear, pre-entry sanitization, and formal reward and penalty policies.

However, several workshops lack proper wastewater treatment systems. Untreated organic waste is discharged directly into ditches and soil, triggering water eutrophication and soil acidification. Piled zong leaves waste also breeds mosquitoes and emits unpleasant odors. These environmental problems degrade raw material planting areas, creating a vicious cycle of ecological deterioration.

The brand also faces tough market problems. Its sales are highly concentrated in the Dragon Boat Festival and Spring Festival, with very few sales channels. Daily sales drop to under 20% right after the Dragon Boat Festival.

Though the brand has tried online sales, outdated packaging, poor operational skills, and failure to attract young consumers limit sales growth. Its sales system and promotion effects are far from satisfactory.

Besides, the brand cannot fully leverage local canal resources as the waterway is still unavailable for navigation. It relies solely on costly road logistics with no canal transportation advantages.

Zhang Longfen, the inheritor of Thai Fragrant Zong King, has studied marketing and communication methods in Hong Kong, Shanghai and Guangzhou. She keeps updating promotion strategies, planning to expand Da Zong’s business to Southeast Asia once the canal opens.

4. Sustainable development pathways for the Lingshan Giant Zongzi from the perspective of linear cultural heritage

4.1. Cultural anchoring: Constructing the core narrative of “*Broussonetia papyrifera* + *Oryza sativa* Cultivation + Giant Zongzi”

Lingshan Giant Zongzi is more than food. The key is to refine its core cultural logic of rice farming, waterway trade, and festive reunion into a modern, appealing story that fits public cognition and current trends.

A local intangible cultural heritage experience center can be built to display the whole process of zong leaf planting, rice processing, and manual wrapping. Local inheritors can explain the traditional philosophy of zongzi symbolizing heaven, earth, and humanity.

Holiday hands-on zongzi-making activities with local schools help cultivate young people’s cultural awareness. The brand can also promote zongzi folk customs through the Canal New Year Festival and Guangxi March 3rd Festival. After the canal opens, joint competitions and blessing events with riverside towns will build the giant zongzi festival into a valuable cultural and commercial IP.

4.2. Ecological closed loop: Establishing the “Grand Canal Ecological Zongzi” certification system

Linear cultural heritage calls for joint protection of ecology and culture. The Lingshan Giant Zongzi project can upgrade traditional ecological models and launch the branded “Canal Ecological Zongzi” with full product traceability^[4].

Enterprises can team up with riverside villages to use local raw materials. Customers can check ingredient sources by scanning QR codes. Waste like leaf scraps, bean dregs, and rice water will be recycled to make biogas and farm fertilizer, forming a green cycle.

Working with agriculture and tourism departments, officials will design a special logo for the product. Over 80% of goods will carry it, with 90% waste recycled. This boosts recycling and brand value.

4.3. Linear series connection: Embedding canal cultural tourism consumption scenarios

Currently, the “Thai Fragrant Zongzi King” is experimenting with intangible cultural heritage production experiences for giant zongzi, but the consumer base remains relatively small. This is also related to the priority destinations of tourists traveling to and from Qinzhou. After the opening of the Pinglu Canal, increased cargo transportation will continuously improve ship navigation. Additionally, the ongoing construction of red cultural tourism projects in the Luwu Town section of the Qishi Hub will attract more visitors.

Lingshan giant zongzi can be integrated into canal one-day tours and the canal intangible cultural heritage corridor. It will shift from purely seasonal festival sales to year-round experiential tourism. A tourism service spot can be set up in Xinxu Town, allowing tourists to watch zongzi making, experience DIY production, and take their works away. This can connect local upstream and downstream tourism resources. Meanwhile, it can launch youth volunteer programs. Students can help with simple work like washing zong leaves in exchange for free accommodation or product discounts, realizing public welfare tourism integration^[5].

As the brand grows, launch mini packaged zongzi, ready-to-eat versions, and cultural gift boxes. Create a cartoon mascot to enrich creative products. Partner with other intangible cultural heritage brands, like launching Luosifen-flavored zongzi, to boost Guangxi’s food industry together.

4.4. Community Co-benefits: A multi-stakeholder incentive system

The sustainable development of intangible cultural heritage relies on joint efforts from inheritors, farmers, businesses, and the government. Lingshan giant zongzi can adopt a shared benefit model. Offer pension subsidies for senior inheritors aged over 60, mentor allowances, and performance-based bonuses.

Build a profit-sharing system across planting and processing. Farmers get material fees plus a share of annual profits. Gather scattered family workshops into an industrial alliance to unify purchasing, quality control and branding, forming an integrated operation system of alliance, enterprises and farmers.

5. Policy coordination and implementation recommendations

The sustainable growth of Lingshan giant zongzi needs joint efforts from the government, businesses, communities and inheritors, plus a clear phased action plan.

With the canal opening, include local zongzi workshops in its cultural tourism project and grant renovation funds. Add zongzi-making experiences to official canal tour routes, and set up sales and exhibition

booths at visitor centers.

Share Zhang Longfen's story through official short videos to boost the cultural brand of the canal and zongzi. Officials will build a cluster of zongzi heritage workshops and develop a cultural industry park in Xinxu Town, combining production, experience, display and research. Officials will also hold packaging design contests to create stylish traditional-style packages loved by all groups.

Officials will apply for geographical indication trademark protection to stop brand misuse and strive for national intangible cultural heritage recognition to raise brand influence. Relying on the Pinglu Canal, officials will build the "Zongxiang Canal" brand for ASEAN markets, exporting packaged zongzi and raw materials to Vietnam, Thailand, and other countries.

Officials will connect with local Dragon Boat Festival cultures in ASEAN and make the zongzi a featured food for the China-ASEAN Dragon Boat Festival. Finally, officials will form a complete industrial chain from local materials and handmade production to canal transportation, global sales, and eco-friendly recycling, turning Lingshan zongzi from a local seasonal snack into a world-famous canal cultural symbol.

6. Conclusion

Intangible cultural heritage items should not be merely preserved on official lists but constantly updated and developed. Single-track development that relies only on industrialization or tourism cannot support long-term growth. Under the framework of linear cultural heritage development, it is necessary to fully coordinate cultural, ecological, economic, and social values.

The sustainable development practice of Lingshan giant zongzi shows that traditional agricultural techniques can be well integrated with modern canal logistics systems. This has shaped a distinctive local development model for Guangxi: adopting local raw materials and handmade craftsmanship, relying on canal transportation to expand market circulation, and realizing ecological feedback through industrial profits. This innovative, balanced development model provides a practical reference for the sustainable operation of regional intangible cultural heritage.

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