





Boundary Adjustment of Geographical Indications in Response to Climate Change A Chinese Case Study on the Economic and Environmental Impact

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- 1. Cases comparison: Boundary adjustment in Europe and China
- 2. Climate change and boundary adjustment

3. <u>Economic,environmental impact and sustainable development of GIs in</u> <u>China</u>

- Climate Change Impact: Climate change affects the quality and viability of Geographical Indications (GIs).
- Guanxiang Case: Traditional production areas are becoming unsuitable; neighboring regions show better conditions, supporting boundary expansion.
- Legal Economic Support: China's legal framework and economic analysis validate geographic adjustments to sustain production.
- Global Context: Similar adaptations have occurred globally, e.g., Champagne in France, to maintain product quality.
- Policy Need: Flexible legal frameworks and collaboration are essential for long-term GI sustainability amidst climate change.

Responses of Geographical Indications to Climate Change: A Comparative Case Study

Guanxiang (Dongguan, China)

- Facing challenges due to increasing temperatures and decreasing precipitation.
- Proposed expansion of production areas within Dongguan city to adapt to changing climatic conditions.
- Utilizes climate data analysis, economic modeling, and legal framework assessment to justify the expansion.

Champagne (France)

- Adaptation through the expansion of its production boundaries in response to warming temperatures.
- Demonstrates how traditional GIs evolve while maintaining product quality and authenticity under climate change.
- Emphasizes the importance of spatial correlation and climate impacts in the adaptation process.

Reform of Geographical Indications in China: Boundary Adjustment

- Article 26 (Amendment and Cancellation)
 - If the protection requirements for a geographical indication product need to be changed, an application for amendment should be submitted to the National Intellectual Property Administration.
 - For updates or improvements that do not change the quality characteristics or product form, but involve changes in the name, production area, etc., the NIPA will review the application after receiving initial opinions from provincial intellectual property management departments.

• Main Content Changes

- For significant changes such as the name, production area, quality characteristics, etc., the NIPA will organize a technical review by experts.
- If the review is successful, the NIPA will issue a preliminary change announcement. If there are no objections within 2 months, the final change announcement will be issued.
- If the review is unsuccessful, the NIPA will notify the applicant in writing. 5/11

Guanxiang: The Feasibility and Necessity of boundary adjustment

Block

The expansion of the production scope of Guanxiang (Agarwood from Dongguan) under its geographical indication (GI) protection is justified by aligning with the core elements of GI systems: terroir, traditional craftsmanship, and reputation tied to origin. Controlled expansion not only meets growing demand but also reinforces regional economic development and cultural heritage, as the GI framework legally safeguards against imitation while promoting sustainable, origin-based value. This balance protects the "Dongguan" identity while leveraging GI principles to scale responsibly.

Guanxiang: The Feasibility and Necessity of boundary adjustment





Figure: The original distribution of Guanxiang production area

Climate change and suitability variation:Rationale for application





- Guanxiang can adapt to climate change through expansion into more productive areas, optimizing overall economic welfare.
- Expanding production areas due to climate change has notable environmental benefits but also presents challenges.
- Consideration must be given to urban development and industrialization effects on air quality, which directly impacts cultivation conditions and product quality.

Future Development Trends of GI Production Areas in China

• Increased Flexibility in Legal Frameworks:

- Expectation of more flexible legal frameworks to accommodate climate-induced boundary adjustments.
- Continuous amendment processes to support sustainable GI production and maintain product quality.

Towards Sustainable Practices:

- Emphasis on sustainable agricultural practices to mitigate environmental impacts.
- Integration of green technologies in GI production to enhance sustainability.

• Enhanced Collaboration:

- Greater cooperation between local producers, regional authorities, and international partners to share knowledge and resources.
- Joint efforts in research and development to innovate solutions for climate adaptation.

• Focus on Quality over Quantity:

- Shift towards prioritizing product quality and authenticity over increased production volumes.
- Strengthening the reputation and market value of Chinese GIs globally.

Adaptation Strategies:

Advanced climate modeling techniques for better prediction and planning.

Thanks for your attention