

Why Do Geographical Indication Policies Underperform? The Implementation Gap in China's GI Regime: A Case Study of Jiangjin *Zanthoxylum bungeanum* with Lessons from the EU

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Abstract

Geographical indication (GI) serves as a vital instrument for rural development, while its practical effectiveness presents obvious disparities. This paper introduces the public policy concept of the implementation gap into research on China's GI system. This concept denotes the structural disconnection between formal institutional design and practical policy implementation. Drawing on an embedded case study of Jiangjin pepper and taking the European Union as a reference, this paper conducts document analysis with reference to European Union (EU) benchmarks to examine policy delivery in terms of registration, producer organisation, quality control and market performance. It identifies five interacting sub-dimensions that contribute to the implementation gap, including state over-embedding, transplant dissonance, institutional monoculture, institutional layering, and protection overreach. Narrowing this gap requires institutional reforms to separate regulatory functions and incorporate producer knowledge into policy practice.

Keywords

Geographical indications, Implementation gap, Policy delivery, Jiangjin pepper

Introduction

Geographical indications protect signs identifying a product as originating in a place where a given quality or reputation is attributable to that origin. Since the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) made GI a mandatory subject of intellectual property protection in 1995, the instrument has spread well beyond Europe. Bilateral and regional agreements, notably the China-EU Agreement of 2020, now extend mutual recognition to thousands of products. In China, expansion has been rapid: Since the consolidation of GI administration under the China National Intellectual Property Administration (CNIPA), the country has maintained one of the world's largest GI registries.

Yet breadth of registry has not been translated into uniform local success. Many GIs registered a decade or more ago remain weak in market recognition, producer organisation and quality assurance. China's regime is institutionally elaborate. It combines a *sui generis* protected-product system, a trademark-based system, and an agricultural-product channel, with core rules

consolidated in the 2024 Measures. Internationally, the China-EU Agreement, in force since 1st March 2021, commits mutual protection of roughly 100 GIs each in a first batch followed by 175 each within four years. The design is, by any formal measure, sophisticated. The puzzle is why it coexists with substantial variation and frequent shortfall in how these policies work on the ground.

The GI literature on China has been dominated by institutional comparison, yet it tells us little about what happens once a GI is registered, when policy moves from statute to implementation. Studies of implementation in the Global South exist, but none connects institutional design to policy delivery within China's own regime [1,2]. It is this connection that the present article attempts to make: Where earlier work asks how the Chinese and EU systems differ, this study asks why well-designed GI policies underperform at the local level, and this paper locates the answer in an implementation gap between formal rules and actual delivery.

In short, this study focuses on the practical operational

effects of widely recognised institutional designs. The Jiangjin pepper case provides a concrete research context, where GI registration, quality control and market promotion rely entirely on official governance channels and producer organisations remain underdeveloped amid a large group of small-scale farmers. To address this question, implementation is traced across the GI life cycle, the explanatory power of the gap's five sub-dimensions for empirical findings is assessed, and contributions from the well-established EU experience are examined. The analysis confronts the GI literature with the implementation-gap perspective, offers one of the first systematic local-level accounts of Chinese GI delivery, and draws out recommendations that speak to reform. Throughout, the EU is treated not as a template to be copied but as a mature reference from which transferable principles can be extracted. The remainder of the article reviews the relevant literature, develops the framework, sets out the design and methods, presents and discusses the findings, and closes with policy implications.

Literature review

The study of geographical indications has long been dominated by a comparative-institutional paradigm. Existing literature extensively compares Chinese and EU geographical indication legal frameworks, evaluates sui generis protection systems and trademark-based mechanisms, and discusses the scope and intensity of relevant protection measures. Within this research context, the EU's protected designation of origin/protected geographical indication (PDO/PGI) system, grounded in *terroir* characteristics and producer-led governance, is widely regarded as a mature benchmark. China's multi-layered registration mechanisms are generally evaluated based on their degree of alignment with this standard. These comparisons illuminate formal design, yet tell us only how the two systems look beside each other on paper.

What this paradigm underplays is implementation: The chain of decisions and practices through which a registered GI is translated, or fails to be translated, into benefits for producers and enforceable protection on the ground. Registration of a geographical indication shifts analytical focus away from formal institutional coherence toward its practical performance for producers,

standard-setting entities, and enforcement authorities. Formal structural consistency often diverges from real-world outcomes: sophisticated institutional frameworks may yield poor local implementation, whereas simpler mechanisms can operate effectively when supported by robust producer organisations [3]. This divergence, namely the implementation gap, represents an underexamined dimension within comparative literature concerning China.

This concept holds a notable lineage within public policy scholarship. Research on a federal employment programme in Oakland demonstrated that even well-designed policies frequently fail due to the multitude of actors, decision points, and clearance procedures requiring alignment. Implementation is not merely residual execution but a constitutive stage of policymaking [4]. Later work extended this insight to developing countries, where the gap between policy rhetoric and realised outcomes is often widest and where state capacity and institutional fit mediate the translation of formal rules into practice [5]. Two implications bear on GI policy: Implementation failure is rarely a single-point breakdown but a systemic property emerging from the interaction of multiple constraints, and the gap depends on the fit between transplanted institutional templates and the local context [6].

GI policy aligns well with this analytical tradition. Geographical indications function as collective goods whose value relies on effective co-ordination among scattered producers. Relevant institutional regimes often result from legal transplantation, which introduces concepts such as *terroir* into local contexts without inherent institutional foundations. In addition, GI benefits appear diffuse and long-term, while regulatory compliance costs remain immediate and concentrated.

This article breaks down the implementation gap into five interacting sub-dimensions, including state over-embedding, transplant dissonance, institutional monoculture, institutional layering, and protection overreach. These dimensions are developed based on theoretical propositions illustrated in the framework section. Three gaps motivate the study: No existing work integrates these sub-dimensions coherently. None applies an implementation-gap lens to China, where an elaborate regime coexists with uneven local outcomes. None uses Jiangjin *Zanthoxylum bungeanum* as a case,

despite its long registration history, its inclusion in the second batch of the China-EU GI Agreement, and its standing as an emblematic mountainous agricultural product of Southwest China.

Theoretical framework

The implementation gap as a systemic phenomenon

This study argues that the implementation gap within China's GI regime is not an isolated policy failure. It is a systemic phenomenon generated by the interplay of five sub-dimensions summarised in the literature review. This phenomenon reflects the structural disconnect between institutional design commitments and practical policy outcomes. State over-embedding sits at the apex: In China the state is the initiating and co-ordinating actor across the entire GI life cycle. Transplant dissonance, institutional monoculture, and protection overreach describe distinct modes in which formal design diverges from local reality, while institutional layering runs beneath as a horizontal condition structuring the field within which the others operate. This scheme serves as a heuristic for evidence organisation rather than a mechanically followed diagram.

Propositions

Five propositions follow, each linking a sub-dimension

to a predicted widening of the gap, each examined against the Jiangjin case in the findings section. State over-embedding widens it by reducing producer agency and creating role conflicts, as the state's simultaneous roles obscure accountability and crowd out producer-led governance [7].

Transplant dissonance widens it by generating formal compliance without substantive alignment, as imported concepts such as *terroir* are inscribed in rules that do not correspond to local categories. Institutional monoculture widens it by disconnecting formal standards from producer practice, so specifications become technically correct yet detached from the craft they govern. Institutional layering widens it by fragmenting accountability and creating co-ordination costs, as overlapping regimes impose competing rules on the same producers [8]. Protection overreach widens it by imposing compliance costs that exceed benefits, deterring participation and chilling market activity [9]. Figure 1 presents the resulting architecture: Five interacting sub-dimensions converge on a structural disconnect between formal institutional design and actual policy delivery.

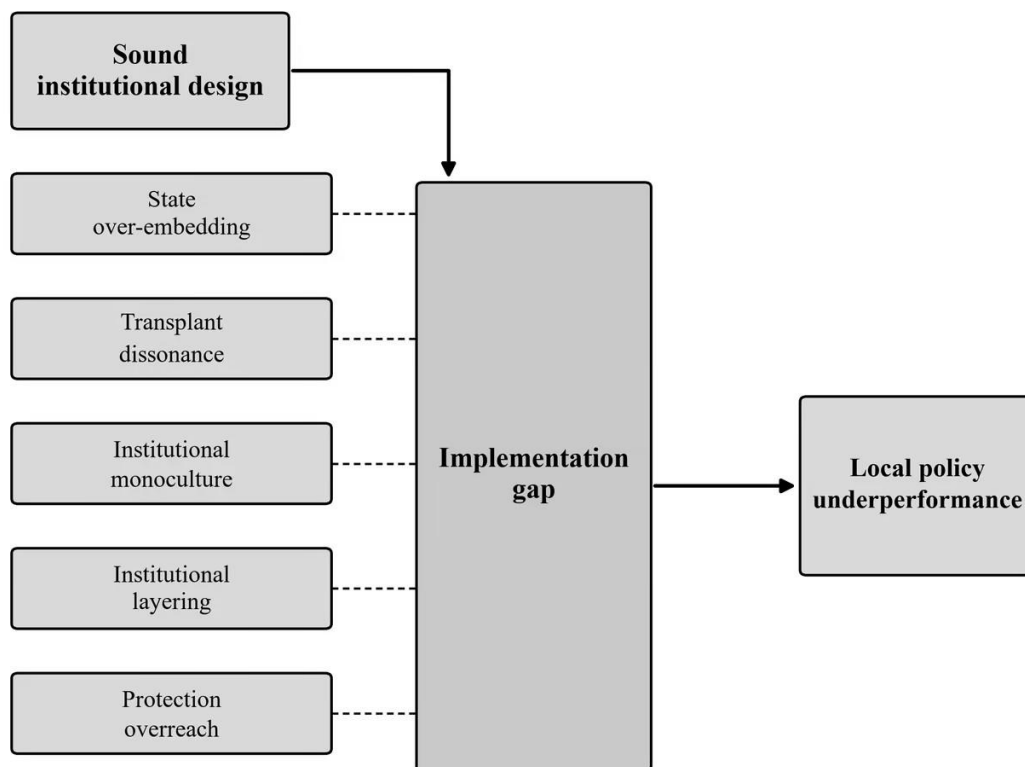


Figure 1. The implementation gap as a systemic phenomenon.

The EU as a reference, not a comparison

A deliberate choice underpins the use of the EU. Its PDO/PGI system is regarded neither as a template for replication nor a benchmark for scoring, but as a well-established reference for extracting transferable principles. Three features are analytically instructive. First, the EU system rests on strong producer organisations that define and defend specifications from the bottom up - the institutional opposite of state over-embedding. Second, it separates regulatory functions - the state sets the framework while producers and certification bodies implement it - whereas China conflates them. Third, the EU's own experience reveals the model's fragility: Even in France, privatisation of control and European harmonisation have eroded producer participation, with the concept of origin progressively assimilated into quality. Extracted principles, namely role separation, producer empowerment, and precaution against overreach, constitute adaptable norms rather than replicable institutional arrangements.

Why the gap may be wider in China and in Jiangjin

Three structural features predict a wider gap in China than in the EU. Chinese GIs are usually state initiated and applied for by government bodies on behalf of producers, producing ownership and agency problems from the outset. The layering of multiple regimes is a distinctly Chinese condition, largely absent from the EU's consolidated framework. And China's rapid, top-down expansion of registration has outpaced the development of the producer organisations and certification infrastructure on which effective delivery depends. Within China, the gap tends to be wider for cases such as Jiangjin. Its pepper is registered under the protected-product system with state-defined specifications, and its producers are smallholders with limited organisational capacity. Its inclusion in the China-EU GI Agreement subjects it to compliance demands, while supporting institutions are lacking to satisfy those requirements.

Methods

Research design

This study adopts a single embedded case-study design [10]. The unit of analysis is GI policy implementation in Jiangjin District, Chongqing, examined through four embedded sub-units corresponding to the stages of the GI

life cycle: registration, producer organisation, quality control and market performance. This approach enables intensive and process-oriented tracking of policy operation from registration to practical delivery. It delivers fine-grained analytical detail unavailable through multi-case or large-N research designs. This method serves the article's theory-building objective to develop and demonstrate a diagnostic framework rather than verify predefined hypotheses. The EU serves as an external reference, a benchmark against which the Jiangjin mechanisms are interpreted, strengthening interpretive validity without overclaiming generalisability.

Case selection

The case is Jiangjin *Zanthoxylum bungeanum* or Jiangjin pepper, a nationally registered GI product of Jiangjin District, Chongqing. Four key features validate this case selection. First, Jiangjin pepper obtained its GI product certification in 2005 via the former General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China (AQSIQ) channel, which was later integrated into CNIPA. Its two decades of policy implementation history provides a mature research setting, as the institutional effects of state over-embedding, institutional layering, and institutional monoculture only emerge prominently with regime development. Second, the inclusion of this product in the second batch of the China-EU GI Agreement enables concrete empirical examination of protection overreach and compliance requirements under cross-border GI protection mechanisms. Third, it represents typical mountainous agricultural heritage in Southwest China. As a traditional and geographically embedded crop planted by smallholder farmers, the crop itself is inherently tied to local territorial characteristics, which renders it an appropriate case for analysing transplant dissonance and institutional monoculture. Fourth, this case supports reliable empirical analysis with accessible public data sources, including CNIPA registration documents, official government reports, industrial statistics, and the official EU GI registry, which establishes a solid evidentiary foundation for document-based research.

Analytical methods

Three procedures are combined. Document analysis codes policy texts, registration files, government reports,

and industry statistics against the framework’s concepts. Process tracing reconstructs the causal chain from policy design to local implementation, identifying for each stage the formal rule, actors, and observed outcome, and examining their connections. Triangulation validates research findings across diverse sources by comparing registration specifications, official statistical data, and EU registry records to avoid methodological bias from single-document reliance.

Limitations

This study presents three key limitations. First, single-case research design limits empirical generalisability. This weakness is alleviated by four subsidiary analytical units and the adoption of the EU institutional framework as a standard reference. Second, the exclusive reliance on public documents excludes supplementary interview data, which restricts access to unrecorded operational practices and producers’ subjective perceptions. This constraint is offset by evidence triangulation and strict adherence to verifiable archival information. Third, China’s rapidly evolving policy environment features the institutional consolidation of CNIPA and the promulgation of the 2024 Measures. Such dynamic changes make certain findings time sensitive. All analytical conclusions are clearly contextualised with temporal boundaries to clarify their scope of applicability.

Findings

Within the findings section, the first subsection addresses the descriptive question, tracing GI implementation in Jiangjin across registration, producer organisation, quality control and market performance. The second subsection addresses the explanatory question, examining the five sub-dimensions. The third subsection turns to the EU reference. All figures are reported with their reference years. Where they reflect official disclosure rather than independent measurement, this is

noted.

GI policy implementation in Jiangjin

Jiangjin pepper was registered as a protected geographical indication product on 17th October 2005 under Bulletin No. 150 of the then AQSIQ, whose GI functions were later consolidated into CNIPA. The applicant was the People’s Government of Jiangjin District rather than a producer organisation, and the specification lays out state-formulated standards covering the jiuweqing variety, altitude range, and soil conditions such as a pH value ranging from 7.0 to 7.5. Two features are analytically significant: The applicant was a government body, establishing state initiation, and the specification was defined top-down in agronomic terms with no documented role for producer knowledge. Registration did not remain static: In 2021, the district gained a National GI Protection Demonstration Area; in 2024, it became one of the first twelve national exemplars, and it entered the second batch of the China-EU GI Agreement.

The producer side is characterised by smallholder dispersion. Jiangjin pepper involves an estimated 280,000 households and 620,000 people in planting and related employment (2022), across an area that grew from roughly 500,000 mu in 2007 to about 530,000 mu by 2022, producing approximately 360,000 tonnes of fresh pepper annually. Against this scale, producer organisation appears thin: The Jiangjin Pepper Association exists, but the record does not establish a collective-governance role comparable to the producer groups that anchor EU systems. Weak collective organisation relative to the producer base is precisely what the framework predicts will leave producers as passive recipients. This finding is flagged for confirmation. Figure 2 places the major Jiangjin milestones on a single timeline.



Figure 2. Jiangjin pepper GI: a timeline of implementation milestones (2005-2024).

Quality control operates through an administrative, state-led system. The demonstration-area framework

establishes a standard hierarchy comprising one national, one industrial, five local, and twelve group standards. These standards are regulated via management measures, a special mark ledger, spot checks, and joint multi-department inspections. This top-down model differs from the EU's third-party certification and producer-led specification, exemplifying institutional monoculture: standards are formally rigorous, but their connection to producer knowledge is not established. The area has nonetheless invested in internationally accredited infrastructure, including one of China's few independent *Zanthoxylum* testing centres, a Société Générale de Surveillance (SGS)-accredited facility. It is a genuine asset but sits within a state-led framework rather than empowering producers.

The market picture is mixed and must be read by distinguishing official disclosure from independent measurement. Official figures put the district's industrial chain output value at approximately RMB 5.5 billion in 2024, brand value at RMB 6.6 billion, and exports at 248.6 tonnes worth RMB 8.4 million to 23 countries and territories. These figures suggest a large, modernising industry, yet they do not demonstrate that GI, as opposed to the broader pepper economy, is delivering its intended benefits. There is no published evidence of a sustained GI-specific price premium. The relationship between registration and exports has not been quantified, and benefits may be diluted across a producer base not organised to capture them. These are not claims of failure; they indicate that the GI's distinct contribution is not yet demonstrable from public data, itself a finding about implementation evidence.

The implementation gap: Five sub-dimensions

The Jiangjin case exhibits the state's simultaneous role as registrar, regulator, and promoter. Registration was state-initiated, quality control is administered by state bodies, and promotion is driven by demonstration-area programmes rather than producer organisations. The consequence is the role conflict and diffuse accountability that state over-embedding predicts: No single actor is accountable for delivering the GI's benefits, and producers have no institutional channel through which to exercise agency.

The registered specification defines quality with Europe-inspired indicators including variety, altitude, and soil pH, translating *terroir* into quantifiable

parameters. Yet the lived category through which local actors understand the product is the Chinese notion of a regional speciality (*difang techan*), denoting administrative-regional fame rather than the indivisible fusion of place, craft, and nature that *terroir* asserts. Consistent with transplant dissonance, formal compliance coexists with a substantive divergence between the categories inscribed in registration and those through which the product is understood.

The standard system is technically sophisticated yet state-formulated, with no documented institutionalised role for producer knowledge. The demonstration area concentrates professional expertise within state-supported platforms such as a national *Zanthoxylum* germplasm nursery, a big-data platform, and an engineering technology innovation centre, instead of placing such expertise within producer collectives. Consistent with institutional monoculture, this may produce standards practically disconnected from smallholder practice, given the dispersion of the 280,000-household producer base.

Jiangjin pepper is registered under the *sui generis* protected-product system, one of several overlapping instruments in the same policy domain. The trademark-based system and the agricultural-product channel coexist with it, generating the regulatory competition and accountability gaps Cheng's "Chinese GI schizophrenia" describes. Whether the product is registered under trademark and *sui generis* channels simultaneously is not established, but the structural condition of layering applies regardless. Consistent with institutional layering, superimposition fragments accountability and imposes co-ordination costs.

International mutual recognition adds new compliance demands. Jiangjin's inclusion in the second batch imposes obligations such as anti-evocation protection. Local producers are required to monitor and safeguard the GI mark across jurisdictions, including EU markets with divergent enforcement standards. For small and medium producers with limited legal capacity, these costs may exceed the marginal benefits of international protection, particularly where exports are concentrated in a few enterprises. Consistent with protection overreach, protection may add burdens not matched by institutional support. This dimension is the least developed and requires producer-level evidence.

The EU reference: PDO/PGI implementation

The EU's PDO/PGI system offers a contrasting implementation model along the dimensions where Jiangjin exhibits gaps. In the EU, GI identification is initiated by local actors who draft the preliminary specification; the state verifies and registers rather than originates - the opposite of the state-initiated Jiangjin registration [11]. Under the French system, the National Institute of Appellation of Origin (INAO), a joint public-private entity, grants producers substantive participation rights. Producer organisations occupy considerable seats within national committees, a formal producer-centred function not observed in the Jiangjin case.

EU quality control also separates functions China's administrative model does not replicate. Since Council Regulation No. 2081/92, the EU distinguishes PDO, requiring every production stage within the origin area, from PGI, requiring at least one step there, and relies on accredited third-party certification rather than state inspection alone. The history is instructive: Control of French GIs has been progressively transferred from INAO to private certifiers, a trajectory in which origin has risked being assimilated into quality. The EU reference is thus not a static ideal.

The EU also benefits from an empirical literature quantifying what GIs deliver, of a kind currently impossible to assemble for Jiangjin. Crescenzi et al. exploit propensity-score matching and difference-in-differences on municipal Italian data (1951-2011) for DOCG wine GIs, finding population growth (0.050-0.062) and a shift towards non-farming sectors (farm

employment share falling by 0.078-0.099). Crucially, these effects depend on regional institutional quality: Where the European Quality of Government index is low, the effect of GIs becomes statistically insignificant. Their conclusion is direct: "For GIs to activate fruitfully the mechanisms of change, the overall architecture of institutions needs to be supportive."

The system's scale and economic weight are documented in official EU sources. The Commission's eAmbrosia register records 2,452 geographical indications across food, wine, and spirits and includes 110 Chinese names protected under the China-EU agreement, though Jiangjin pepper is not yet among them. The Commission's Study on the Economic Value of EU Quality Schemes (2020) estimates total GI-related sales reached EUR 74.8 billion in 2017, accounting for 7.0 % of the EU food and drink sector, with a global value-premium rate of 2.07. This figure indicates that GI-labelled products attain approximately twice the value of comparable non-GI alternatives.

This premium serves as the quantitative counterpart to the implementation-gap argument. A well-designed GI generates developmental benefits only when adequate supporting institutional conditions exist, including functional producer organisations, sound governance, and clear role separation. Where such conditions are deficient, the developmental effects of geographical indications diminish. The Jiangjin configuration would be expected to sit at the thinner end of effectiveness precisely because the institutional supports the European evidence identifies as necessary are the ones most absent.

Table 1 condenses the contrast.

Table 1. EU PDO/PGI reference versus the Jiangjin case, by GI life-cycle stage.

Dimension	EU PDO/PGI model (evidence)	Jiangjin case (this study)
Registration/specification	Producer groups draft specifications; state verifies	State-initiated application (2005); state-formulated standards
Producer organisation	Strong producer organisations; producers in INAO committees	Weak collective organisation vs 280,000-household base
Quality control	Third-party certification; PDO/PGI distinction	Administrative inspection; state standard hierarchy + SGS centre
Market/effectiveness	Causal evidence: population 0.050-0.062, farm share 0.078-0.099 (Crescenzi et al., 2022); value premium 2.07	Official output RMB 5.5 bn, brand RMB 6.6 bn (2024); GI premium not demonstrated
Registration scale	2,452 GIs; 110 Chinese names (eAmbrosia)	Single product; second batch not yet visible in EU register

Discussion

The implementation gap explained

The Jiangjin findings back the core claim. The implementation gap represents a systemic outcome shaped by interactions among the five sub-dimensions rather than an isolated failure. These dimensions exert compounding effects. State over-embedding shaped the institutional structure at the registration stage through government-led application and state-drafted specifications. This circumstance presupposed and further intensified institutional monoculture, as top-down specification definition eliminated formal channels for integrating producers' practical knowledge. The same state-centrism left producer organisation weak, so no collective body existed to push back, institutional layering supplied the background fragmentation, and protection overreach added compliance costs that fell hardest on small, dispersed producers.

The five dimensions are mutually reinforcing. State over-embedding generates conditions for institutional monoculture and weakens producer organisations that might mitigate such outcomes. Both monoculture and institutional layering fragment accountability and render the implementation gap self-sustaining. Protection overreach imposes burdens on participants whose engagement is required to reverse institutional shortcomings. These dynamics explain why incremental adjustments fail to resolve the gap. The gap is more pronounced within China compared with the EU, where producer-driven initiation prevents such feedback loops at their origin. The divergence becomes even greater in contexts such as Jiangjin, characterised by a large smallholder base alongside strong state steering. The EU maintains a 2.07 value premium across EUR 74.8 billion in GI-related sales, whereas no comparable premium can be demonstrated for Jiangjin. This contrast does not indicate that geographical indications are inherently devoid of value. Institutional design governs whether such potential value can be realised.

Theoretical implications

Three contributions follow. To the GI literature, the article shifts the focus from institutional comparison to implementation analysis. To the policy implementation literature, it contributes a new empirical domain - GI policy, whose collective-goods structure and reliance on

dispersed co-ordination make it a demanding test of implementation theory. And to legal transplant theory, it shows that a transplanted institution's success depends on implementation: A concept such as *terroir* may be transplanted in text while failing in reality, because its viability requires producer organisation and role separation that text cannot transfer. Implementation, rather than design, is the decisive variable.

Relevance to development policy debates

The findings speak to long-standing debates on the roles of state, market, and community, and on the divergence between policy rhetoric and rural reality. State over-embedding is an instance of the state-community tension: Where the state dominates the GI life cycle, the producer community is reduced to a passive beneficiary, and the collective governance a functioning GI requires never forms. The implementation gap constitutes one form of rhetoric-reality divergence. It provides an institutional mechanism grounded in policy design and on-the-ground delivery that generates misalignment between formally sophisticated policy frameworks and their practical outcomes in rural contexts.

Scope and limits of the findings

The findings are drawn from publicly available documentary sources. Certain dimensions, notably producer organisation and protection overreach, receive suggestive rather than definitive support and would require producer-level evidence for firmer validation. The market analysis concludes that the GI's distinct contribution is not yet demonstrable from public data, a finding about evidentiary status rather than a verdict on failure. This constitutes an initial diagnostic manuscript that establishes and illustrates the framework.

Policy recommendations

For China's GI policy

Narrowing the gap requires institutional reform, not capacity building alone. Five recommendations follow. First, reduce state over-embedding: separate the registration, regulation, and promotion functions concentrated in the state, devolving promotion and quality governance to producer organisations and confining the state to setting the framework and verifying compliance. Second, address transplant dissonance by incorporating local producer knowledge into quality specifications rather than imposing *terroir*-derived

parameters. Third, reduce institutional monoculture by empowering producer organisations in quality governance and pairing the state's technical infrastructure with producer-led processes. Fourth, reduce institutional layering by clarifying mandates across the *sui generis* product system, the trademark system, and the agricultural-product channel. Fifth, prevent protection overreach by calibrating anti-evocation and international obligations to local capacity, matching compliance demands with technical assistance for small and medium producers.

For Jiangjin specifically

Three policy implications emerge from this study. First, the governance capacity of the Jiangjin Pepper Association should be strengthened to transform it from a nominal administrative body into an authentic producer collective capable of initiating specification revisions and co-ordinating quality governance. Second, producer-led quality monitoring mechanisms should be developed on the basis of existing standard systems and SGS-accredited facilities. Third, the China-EU GI Agreement should be leveraged through coordinated institutional arrangements. The demonstration-area governance structure should support enterprises and smallholders that bear compliance burdens, thereby preventing the monopolisation of export benefits by a narrow group of stakeholders.

For the implementation of the China-EU GI Agreement

At the bilateral level, monitor implementation of mutual recognition at the local level rather than treating entry into force as its end point, since the Jiangjin experience shows international recognition and local delivery can diverge. Provide technical assistance to producer organisations so the compliance capacity the agreement demands is developed, not assumed. And evaluate the agreement's economic impact on rural households. Without such monitoring, the agreement risks reproducing at the international scale the gap documented here at the local scale.

Conclusion

This article sets out to explain why well-designed geographical indication policies underperform at the local level, using Jiangjin *Zanthoxylum bungeanum* as a case and the EU's PDO/PGI system as a mature reference.

The findings support the central claim: The gap is systemic, produced by the interaction of state over-embedding, transplant dissonance, institutional monoculture, institutional layering, and protection overreach. It is wider where state over-embedding is stronger and producer capacity weaker - precisely the Jiangjin configuration of a government-initiated registration, state-formulated standards, weak collective organisation and a large dispersed smallholder base. In contrast, contexts characterised by producer-driven initiation and robust producer organisations witness 2,452 registered GIs generating EUR 74.8 billion in sales with a value premium of 2.07. However, no GI-specific value premium has been identified for Jiangjin. This stark contrast demonstrates that identical institutional instruments can yield disparate outcomes under divergent governance arrangements.

This paper makes three distinct contributions. First, the proposed implementation-gap framework establishes a clear analytical linkage between institutional design and on-the-ground policy delivery. Second, the five sub-dimensional constructs form a generalisable diagnostic tool applicable beyond the Chinese institutional context. Third, this study adopts the EU regime as a comparative reference rather than a rigid normative template. Furthermore, such references are dynamically contextualised. The gradual erosion of producer participation within the French GI system demonstrates that effective origin protection demands sustained institutional maintenance and governance adjustment.

The central policy implication is that narrowing the gap requires institutional reform, not merely capacity building. Separating regulatory functions, incorporating producer knowledge, empowering producer organisations, clarifying overlapping mandates, and calibrating protection matter more than additional resources channeled through the existing state-centred structure. Producer empowerment is key: Where producers can define, govern, and defend their designation, the reinforcing loop that produces the gap is broken at its source.

This study proposes three avenues for future research. First, multi-case comparisons across diverse Chinese GI regions can examine the boundary conditions of the analytical framework. Second, quantitative measurement of the GI implementation gap, grounded in empirical

causal evidence from European practices, can advance current diagnostic analysis toward systematic quantitative evaluation. Third, longitudinal investigation of post-2020 institutional reforms can trace whether such policy adjustments effectively mitigate the implementation gap over time.

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Conflicts of Interest

The authors declare no conflict of interest.

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