


Strengthening India's GI Ecosystem in the E-Commerce Era: Opportunities for Innovation and Inclusive Development

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ABSTRACT

Intellectual property rights (IPR) are granted to protect creative innovation by conferring exclusive ownership and commercial rights. Geographical Indications (GIs) have emerged as a significant intellectual property tool in India, fostering rural development, protecting traditional knowledge, and supporting inclusive economic growth in a rapidly transforming digital environment. With the expansion of e-commerce platforms, GI products have gained new avenues for visibility and market access; however, recent research highlights challenges including counterfeit listings, quality dilution, inadequate producer awareness, and weak digital branding strategies (NIScPR, 2023; IBEF, 2022). These issues limit the full commercialization potential of GI goods and restrict the benefits reaching artisan and farming communities. The key objectives are to analyse the role of digital marketplaces in enhancing GI product reach, identify legal and socio-economic barriers affecting online GI trade, and propose actionable policy strategies to improve traceability, producer participation, and value chain integration. However, geographical indication (GI) rights represent a distinctive category of intellectual property that is granted collectively to producers of a specific region, signifying the origin, reputation, and unique qualities of their products. These rights serve not only as legal protection but also to preserve the cultural heritage. In the traditional market, GI products are not identified through labelling, inspections and their sale within designated localities. It is complicated in the online e-commerce platforms, such as Amazon and Flipkart. Online platforms facilitate third-party sellers from anywhere in the world to market products. The genuineness of GI products is difficult to verify on online platforms. Consequently, consumers may be misled about the origin, quality and certification of these goods. The proliferation of counterfeit registered GI products undermines the authenticity and economic value of these products. Although consumer protection (E-commerce) rules attempt to introduce greater transparency and liability of intermediaries, they remain largely ineffective. It is necessary to incorporate a stronger traceability system, digital certification mechanisms, and enhance the accountability for e-commerce platforms. The study adopts a mixed-method approach comprising policy and legal analysis of the GI Act, TRIPS provisions, and digital trade frameworks; qualitative interviews with artisans, producer collectives, IP experts, and e-commerce representatives; and case studies of selected Indian GIs marketed through online platforms. Secondary data from GI registries, government reports, and recent academic studies complement the primary findings.

Keywords: Geographical Indications, E-commerce, Inclusive Growth, Innovation, Digital Trade, Intellectual Property, Authenticity, TRIPS.

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INTRODUCTION

The emergence of e-commerce has created a paradigm shift in the way trade is carried out in the country and opened up unprecedented opportunities for local products to reach both national and international markets. However, along with these opportunities, this digital transformation has also brought some severe challenges regarding GI protection. In India, the GIs represent a product which is, by nature, connected with its geographical origin, and authenticity, preservation of rich cultural heritage, and economic benefits for local producers are some of the key associations. Despite being legally protected under the Geographical Indications of Goods (Registration and Protection) Act of 1999, some of the iconic Indian GI products, like Darjeeling Tea, Pashmina, and Banarasi Silk, are now victims of counterfeiting, with offenders taking advantage of anonymity and global reach on major online platforms like Amazon and Flipkart. Counterfeit GI products mislead the consumers and at the same time adversely affect genuine producers as they bring down the pricing and erode the brand value of real products. The sale of fraudulently marked GI products on e-commerce sites has brought economic losses for artisans and farmers and have decreased trust by consumers in traditional products. Pithily noting thus, given the country's expanding digital economy, GI rights' legitimate enforcement continues to be a very challenging endeavor that warrants collaborative strategies that incorporate legal frameworks, technological advancements, and active policies from online portals to achieve the desired goals. Currently, there are several ways to protect GI. One such form is the sui generis system in India. The second example is the use of certification or collective marks in the USA. The third form of protection is sui generis, which has significantly evolved and expanded in the EU. Like other forms of IP, GI is also indispensable. GI has much potential for regional growth. Regional growth leads to national development. The paper advocates for the development of the GI landscape in India, viewing it as a model of regional growth.

India has implemented numerous measures to enhance regional growth. One such instance is "One District One Product" (ODOP). The goal of ODOP is to identify, brand, and promote a single product with significant potential from each district. ODOP is tagged with GI. Undoubtedly, GI can supplement ODOP because it protects and promotes unique treasures safeguarding the interests of the local people involved in the production. This encompasses regional growth, socio-economic growth, investment in the district, employment in the district and to provide an ecosystem for innovation. ODOP also aims to foster balanced regional development across all districts. ODOP includes GI tag. ODOP has independent identity but where a good can get GI tag than GI supplement ODOP. Few examples are "Ramban Sulai Honey", and "Lakadong Turmeric".

RESEARCH OBJECTIVES

1. To examine the current status and effectiveness of India's Geographical Indications (GI) ecosystem in the context of digital and e-commerce platforms.
2. To identify opportunities for innovation in production, branding, packaging, and digital marketing for GI-registered products.
3. To evaluate how e-commerce can enhance inclusivity for artisans, farmers, producer groups, and rural communities associated with GIs.
4. To analyse barriers to digital adoption faced by GI producers, including technological, regulatory, logistical, and financial challenges.
5. To assess the role of government policies, e-marketplace practices, and institutional support in strengthening the GI value chain.

RESEARCH QUESTIONS

1. How effectively is India's current Geographical Indications (GI) ecosystem functioning, and to what extent has it adapted to the structural and technological transformations brought by the e-commerce era?
2. What opportunities for innovation in production, certification, supply chain management, and digital marketing can enhance the competitiveness and visibility of GI products in online marketplaces?
3. What strategic interventions are required at policy, institutional, and platform levels to strengthen the GI ecosystem and promote inclusive participation of marginalized producers in the digital economy?

RESEARCH METHODOLOGY

This study adopts a mixed-methods approach to analyse the functioning and digital transition of India's GI ecosystem. Primary data are collected through surveys with artisans and producer groups, and semi-structured interviews with policymakers, GI associations, and e-commerce platform representatives. Case studies of selected GI products provide additional comparative insights. Secondary data from GI Registry reports, policy documents, academic literature, and market studies supplement the findings. Purposive sampling is used to select relevant stakeholders, and data are analysed using descriptive statistics, thematic analysis, and policy review to identify key challenges and opportunities in the e-commerce context.

CONCEPT OF GEOGRAPHICAL INDICATION –

A geographical indication is a sign used on products that has a specific geographic origin and includes the qualities or reputation of that origin. A geographical indication is given mainly to agricultural, natural, manufactured, handicraft arising from a certain geographical area. Geographical indications (G.I.) are one of the forms of IPR which identifies a good as originating in the respective territory of the country, or a region or locality in that particular territory, where a given quality, reputation or other characteristic related to good is essentially attributable to its geographical origin.

It performs three functions:

First, they identify the goods as to the origin of a particular region or locality;

Secondly, they suggest to consumers that goods come from a region where a given quality, reputation, or other characteristics of the goods are essentially attributed to their geographic origin;

Third, they promote the goods of producers of a particular region. They suggest the consumer that the goods come from this area where a given quality, reputation or other characteristics of goods are essentially attributable to the geographic region.

DEFINITION OF GEOGRAPHICAL INDICATION BY WIPO: -

According to WIPO, GI is a signature that indicates the authenticity of the products originated from a specific region or manufactured by a particular community. The WIPO defines GI as, "a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin."^[5]

ELEMENTS OF GI

1. Goods, originating in a particular territory, region, or locality: -

Origin of goods is one of the vital elements in determining GI. But to identify the origin, proper delimitation of the region is necessary considering the specific nature of the product. Delimitation means dividing a particular area into appropriate administrative zones. It will help to identify that the concerned geographical area is situated in a specific zone or region. For example, Aranmula Kannadi. Aranmula is a region in the Pathanamthitta district. The Kannadi (Mirror) is made in the region called Aranmula. Hence it is called Aranmula Kannadi, increasing the importance of the area called Aranmula.

2. Quality: -

Quality is one of the main attractions of goods having a GI tag. The quality of goods is mainly due to two things i.e. natural quality and quality attributable to the method of manufacturing. Natural quality mainly due to the physical and chemical properties of raw materials, temperature, and climate of that particular region, soil, landscape, etc. In the case

of agricultural products, quality depends on the soil, harvesting methods, seeding, and packaging of the finished products. For example, the prominent Palakkadan matta is popular because of its unique taste, which is cultivated in the district of Palakkad Kerala. This rice is cultivated in the dense black cotton soil. The soil contains clay and silt, which gives a natural flavor to the rice. Quality attributable to the method of manufacturing includes the quality of raw materials and the method of manufacturing. The actual presentation of the product is also due to the quality

3. Reputation: -

Reputation of the goods is related to the historical origin of the goods. Every good having GI tag has some history. It will help to distinguish it from other forms of product. While registering for GI tag, the applicants must show the proof of origin, i.e., the history related to the product.

FUNCTIONS OF GI

GI's primary purpose is to protect the goods registered under GI from a socio-economic perspective.

Ø It will help identify the fake products, getting manufactured/produced and sold in the market, and take legal action against them.

Ø It will also improve the economic status of the producers of the products with original proof of origin.

Ø From the consumer's perspective, identifying the authentic product will be easy for them, which will improve the consumers buying decisions.

Ø Further, GI also helps to protect the culture by preserving the traditional methods of production. It thus provides a natural and regional identity to the products.

BENEFITS OF GEOGRAPHICAL INDICATIONS:

The organizations or companies who register their geographical indications enjoy various advantages from the registration, including:

1. Registered geographical indications have the exclusive right to access or use G.I. products during the business.
2. Authorized users enjoy the right to sue for infringement.
3. It provides legal protection to geographical signs in India.
4. Prevents unauthorized use of registered geographical indications by others.
5. It provides legal protection to Indian geographical signals which in turn promotes exports.
6. It promotes the economic prosperity of producers of goods produced in a geographical area.
7. A registered owner can also approach for legal protection in other WTO member countries.
8. It provides legal protection to the respective goods in domestic as well as in international markets.

IMPORTANCE OF GIS IN SUPPORTING RURAL ECONOMIES IN INDIA

Certain communities around the world are well-known for their distinctive products, on which their livelihoods are highly reliant. These speciality products are frequently associated with cultural and regional identity, and they highlight a long history of craftsmanship, community, and civilization. GI tags enable manufacturers to distinguish their products and sell them as authentic, enabling future generations of artisans, chefs, and other professionals to maintain their traditional practices.

Traditional knowledge - It forms the basic foundation for Geographical Indication. It encompasses conventional methods of cultivation, processing, craftsmanship, and natural resource management that have developed and been preserved within a specific geographical area over generations.

Quality assurance - Although a wide range of blended products is available on the market, GI products are renowned for maintaining the quality and authenticity of their products. They enhance consumers' credibility about the product's genuineness and reinforce the perception of value for money.

1. Economic Benefits and Job Creation

GI protection enhances the value of traditional products in the market, which automatically generates more income for local producers. Farmers cultivating GI-tagged agricultural produce like Darjeeling Tea and Alphonso Mangoes command a premium market price due to the unique quality and origin-based brand name. Similarly, handloom Pashmina Wool weavers and artisans of Kanchipuram Silk or Madhubani Paintings are more economically stable since GI protection hinders illegal commercial exploitation of their crafts. Conservation of these age-old industries also leads to employment generation among rural people, which prevents them from migrating to cities for jobs.

2. Conservation of Cultural Heritage

GI status is instrumental in the preservation of India's diverse cultural heritage through the continuity of traditional craftsmanship. The majority of the indigenous arts and crafts are at risk of extinction due to industrialization and mass production. But GI protection forces artisans to retain traditional skills and pass them on to future generations. For example, Banarasi Silk production and Channapatna Toy making are deeply ingrained in the local culture of their respective places of origin. Protection under the law of the GI regime ensures that these crafts are sustainable by preventing imitation and mass production under false labels.

3. Market Differentiation and Export Potential

GI-tagged products possess a unique identity in the market, and they are highly sought after by consumers who value authenticity and heritage. Commodities such as Darjeeling Tea and Basmati Rice have become very popular in foreign markets, thereby boosting the exports of India. A number of GI commodities have obtained exclusive representation rights in foreign markets, and it ensures that only authentic Indian producers benefited from their commercial advantage. It allows segmentation so rural producers can engage in global markets, and it boosts their economic chances and overall prosperity.

2. Pashmina Wool Craftsmen of Kashmir

The Pashmina Wool industry is the livelihood of many artisans in Kashmir, who create the best wool in the world. GI protection has played an important role in guaranteeing authentic Kashmiri Pashmina from fake synthetic replicas. The establishment of GI marking, with QR-coded authentication, has allowed artisans to differentiate their products in the market, thus having their skills appreciated and rewarded economically.

3. Banarasi Silk Weavers

The handloom Banarasi Silk sector provides employment to thousands of weavers in Varanasi, Uttar Pradesh. The GI tag for Banarasi Silk deters machine-made imitations from entering the market, and therefore enables traditional weavers to pursue their craft. Many weavers have benefitted from government-supported programs that encourage GI craftsmen worldwide, increasing their revenues and demand for authentic handloom silk.

4. Madhubani Painting Artists of Bihar

Madhubani Painting, a traditional Bihar art form, has gained international recognition due to the GI-tagged status. The rural women artists, who constituted the majority of the artists, have experienced improved economic conditions as a direct consequence of increased domestic and global demand for authentic Madhubani paintings. The GI tagged status ensures their hand-painted works are not imitated or produced in bulk under the false pretense of branding.

LEGAL FRAMEWORKS OF GEOGRAPHICAL INDICATIONS IN INDIA

In India, GIs are registered and protected under the Geographical Indications of Goods (Registration and Protection) Act 1999. This legislation aligns with the provisions of the TRIPS Agreement to ensure both domestic and international recognition of Indian GI products.

1. Geographical Indication

Under these Act, section 2(1) clearly define GI

An indication which identifies goods such as agricultural, natural or manufactured goods originating, or manufactured in the territory of a country, or a region or locality in that territory having quality, reputation or other characteristic of such goods is essentially attributable to its geographical origin and in case where such goods are manufactured goods one of the activities of either the production or of processing or preparation of the goods concerned takes place in such territory, region or locality.

2. Registered proprietor and Authorised user

To protect GI products, it is essential to register before the Registrar of Geographical Indications. The application is submitted by the registered proprietor, which may be an association of persons or an organisation representing the interests of producers of the concerned goods. The registered proprietor is responsible for protecting and maintaining the name and reputation of the GI. An authorised user is an individual producer who is entitled to manufacture GI goods within a designated geographical area. For instance, Darjeeling Tea is registered as a GI, for which the Tea Board of India serves as the registered proprietor. At the same time, producers from these specific regions who meet the prescribed criteria are recognised as authorised users.

3. Rights conferred by registration

Suppose any infringement, such as falsification of true origin, counterfeit of product or misuse of the manufacturing process, arises in relation to registered GI products. In that case, the registered proprietor and authorised user of specific origin have the right to obtain relief in respect of it. However, any dispute between two or more authorised users of identical GI products cannot be deemed to be an infringement against each other. Moreover, the use of expressions such as “kind”, “style”, or “imitation” of a registered GI product also constitutes an act of infringement under the law.

4. Penalty for selling goods representing a false geographical indication

Any person who sells or trades goods falsely claiming origin or qualities linked to the registered GI is liable to imprisonment for a term not less than six months and a fine not less than fifty thousand. However, a person may avoid a penalty if they can prove their lack of knowledge or intent regarding the false representation.

MARKETING AND GEOGRAPHICAL INDICATIONS

Merely registering a GI is not an end in itself; its true significance lies in its potential to enhance product marketability and contribute to long-term brand establishment.² The value of a GI product may diminish if it lacks broader market access and consumer recognition. Therefore, effective marketing strategies are crucial for increasing visibility and enhancing the value of GI products among consumers. Such initiatives foster a confident and trust-based relationship between producers and consumers. Moreover, they enable local producers to compete effectively in the international market by meeting demand for authenticity and superior quality.

CHALLENGES IN THE MARKETING OF GI PRODUCTS

- Integration of online and offline marketing

GI products are traditionally sold through the local market, which limits their access to wider consumer bases. The expansion of online marketing has created demand for these products in the marketplace. However, while offline sales preserve the experiential and cultural authenticity associated with GI products, such characteristics are often difficult to replicate in online environments. Questions concerning authenticity and origin remain significant challenges in the digital marketplace. Therefore, an integrated marketing approach is crucial for establishing trust and expanding the market reach of GI products.

- Consumer loyalty

Building consumer trust and maintaining a strong emotional connection to GI products are essential in competitive markets. Establishing brand recognition beyond their local market and quality assurance of producers enhances consumer confidence and repeat purchase behaviour. In the digital marketplace, customer loyalty can be strengthened through interactive practices such as collecting consumer feedback for continuous improvement, sharing product stories, and communicating the cultural and historical significance behind GI products.

- Product Pricing

Pricing represents a complex challenge in the marketing of geographical indication products, as it involves balancing authenticity, unique origin, and cultural value. In many cases, intermediaries capture a disproportionate share of profits, leaving local producers with minimal returns despite the high retail price of GI goods. To address this imbalance, it is necessary to promote direct-to-consumer (D2C) marketing models and adopt fair trade principles to ensure equitable distribution of value throughout the supply chain. Additionally, educating consumers on the socio-cultural importance of GI products can enhance their willingness to pay premium prices and thereby support producer welfare.

LEGAL FRAMEWORKS OF THE E-COMMERCE PLATFORM IN INDIA

E-commerce in India is regulated by several legislations, varying from digital transactions to consumer protection.

1. The Consumer Protection (E-commerce) Rules, 2020

These rules specifically govern all activities related to the buying and selling of goods and services over digital networks. The rule defines an ‘E-commerce entity’ as any person who owns, manages, or operates a platform for E-commerce, but excludes sellers who list their products on such a platform.

Rules 4 and 5 outline the duties and liabilities of E-commerce entities. The responsibilities of an entity include providing clear and accessible information to its users, such as the name, contact details, and website address of the e-commerce entity. Entities are strictly prohibited from engaging in any form of unfair trade practice and are required to redress consumer grievances within one month from the date of receipt.

The rules also impose specific liabilities on e-commerce platforms to ensure that details of sellers are available, including the name of the business, its geographic address, a description of the product, an image, and other relevant content. These disclosures must accurately represent the nature, quality and purpose of the product or service being offered. Additionally, sellers operating on e-commerce platforms are bound by duties not to engage in deceptive or unfair trade practices. They must provide all relevant information about their goods and services, including the country of origin, which is necessary for consumers to make informed decisions during the pre-purchase stage.

2. Information Technology Act 2000,

Section 79 of the Information Technology Act, 2000 provides a safe harbour protection to intermediaries, exempting them from liability for any third-party listings of products on their platforms. This protection was not absolute, and intermediaries must exercise due diligence while acting promptly upon receiving actual knowledge of an infringement. The Intermediary Guidelines and Digital Media Ethics Code Rules 2021, particularly Rule 3, elaborate on these due diligence obligations for e-commerce platforms and impose a legal responsibility to act against counterfeit or misleading listings, including those that violate GI rights.

FACTORS FOR GI PRODUCTS ARE COUNTERFEIT ON THE E-COMMERCE PLATFORM

✓ Supply and demand gap

The prevalence of counterfeit GI products on e-commerce platforms primarily stems from a combination of demand and supply chain factors. Authentic GI products are more prevalent in the market; however, their production is limited to a specific region, which falls short of meeting the overall market demand. As a result, many sellers on online platforms misled consumers by falsely labelling products to gain unlawful enrichment. Consequently, genuine producers suffer revenue loss, and consumer trust and integrity of GIs are significantly undermined.

✓ Non -Affordability

Most GI products are priced higher even within their specified region. However, sellers on online platforms often exploit this price sensitivity by attracting customers through misleading price disparities and the unauthorised use of GI names. Consumers find it difficult to distinguish authentic style from imitations, and the deceptive origin of labelling and pricing blurs lines of authenticity. For instance, Darjeeling tea is one of the most expensive varieties, priced at Rs 1.5 lakh per kilogram in its origin. At the same time, e-commerce platforms such as Amazon sell similar labelled varieties at Rs 700 per kilogram.

✓ Lack of a producer database

The absence of a publicly accessible database of registered producers of GI products creates a loophole in the market, making it difficult to verify authenticity and trace the origin of products. Establishing such a database on the official government website would significantly contribute to curbing the counterfeiting of GI products. It not only enhances consumer trust but also strengthens enforcement mechanisms in both physical and digital marketplaces.

✓ Lack of consumer Awareness

Another major factor contributing to the counterfeiting of GI products is the lack of consumer awareness regarding the significance and identification of authentic GI labels. Consumers often rely primarily on price or visual appearance and are generally unfamiliar with GI tags and regional uniqueness. The absence of clear product information on e-commerce platforms and digital verification systems further misleads consumers, making it difficult to differentiate genuine GI products from counterfeit ones.

✓ Weak regulatory enforcement

In India, the issue of counterfeit GI products on e-commerce platforms is significantly exacerbated by weak regulatory enforcement. Although the Geographical Indications of Goods (registration and protection) Act, 1999 provide framework and implementation remain inadequate. Insufficient monitoring of online marketplaces and lack of digital tools to verify GI-labelled products. Additionally, under the Act penalties and legal action against sellers are much low it creates benefit for big e-commerce platforms. As a result, fake GI products continue to circulate widely on platforms such as amazon, flip kart, causing economic loss for authentic producers and undermining the credibility of India registered GI products. In 2018, Department of Industrial Policy and Promotion (DIPP) reveal tricolor logo and geographical Indication certified products but it ineffective among GI producer due to limited outreach.

INTERNATIONAL LEGAL FRAMEWORK FOR GI FRAMEWORK FOR GI PROTECTION

Geographical Indications (GIs) are a significant part of international intellectual property (IP) rights, which are mostly governed by multilateral agreements, regional arrangements, and bilateral agreements. The international law of GIs is shaped by the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement, the Lisbon Agreement on the Protection of Appellations of Origin, and free trade agreements (FTAs). These frameworks set the registration, recognition, and enforcement regime for GIs in cross-border trade. However, issues such as counterfeiting, loopholes in enforcement of e-commerce, and variations in national legal systems continue to challenge GI protection at the international level.

1. The TRIPS Agreement and GI Protection

The most comprehensive international agreement governing GIs is the TRIPS Agreement, which is overseen by the World Trade Organization (WTO). TRIPS Articles 22 to 24 set the floor level of GI protection among WTO members.

- Article 22 provides that GIs are “indications which identify a good as originating in the territory of a Member, or a region or locality in that territory, where a given quality, reputation, or other characteristic of the good is essentially attributable to its geographical origin.” It requires WTO members to prohibit the use of GIs in a manner that is deceptive or amounts to unfair competition.
- Article 23 gives greater protection to wines and spirits, forbidding the application of deceptive GI terms even if preceded by explanatory words like “style,” “type,” or “imitation.” This implies that “Champagne” cannot be applied to sparkling wines produced outside the Champagne area of France, even if described as “Champagne-style.”
- Article 24 makes provision for WTO members to negotiate greater protection for other products than wines and spirits and settle disputes over current GIs. Nevertheless, it also has exceptions whereby there can be continued use of some GIs used prior to the coming into operation of the agreement.

Although TRIPS sets a minimum standard for GI protection, it does not require a worldwide GI registry, and enforcement is left to the legal systems of individual nations. This has resulted in differing approaches to implementation, with some countries adopting trademark-based GI protection (such as the United States) and others employing dedicated GI legislation (such as the European Union and India).

FINDINGS AND RECOMMENDATIONS

The study reveals that e-commerce entities continue to allow third-party sellers to list and sell counterfeit GI products on their platforms until the registered authority issues a formal notice of infringement. The existing “notice and takedown” model places an excessive burden on registered proprietor who lack the resources to monitor global online platforms continuously. Beyond the digital market, there exists a lack of comprehensive regulation governing the sale and promotion of GI products, as well as a mandatory registration system for authorised users of origin. Furthermore, the study identifies that GI tags are not consistently affixed to products. The absence of a publicly accessible database of registered producers further weakens traceability and enforcement mechanisms. It is therefore recommended that the government establish an official online platform dedicated to marketing and verifying authentic GI products to ensure transparency and consumer trust. Additionally, implementing a digital QR code for disclosing information on GI products and packaged goods sold on e-commerce platforms would specify a unique serial number for each GI product. To emulate singapore model , a Transation Safety Rating (TSR) mechanisms may be implement to verify sellers and monitor activites based on e- commerce platform. This rating would reflect the degree to which platforms have adopted and enforced anti-scam and consumer protection measures

CONCLUSION

The protection of Geographical indications in the digital marketplace represents one of the most contemporary challenges in Indian intellectual property regime. While the Geographical Indications of Goods (Registration and Protection) Act 1999 provides a robust legal foundation for safeguarding regional products, the rapid evolution of e-commerce has exposed significant gaps in enforcement, traceability and consumer awareness. The geographical indication rooted in authenticity, origin, and traditional craftsmanship is undermined in a virtual environment that facilitates mass listings by anonymous third-party sellers’-commerce platforms have transformed market accessibility for GI goods, expanding their reach beyond local boundaries and contributing to rural economic growth. However, the benefits of digitization are accompanied by unprecedented risks. Although the consumer protection (E-commerce) rules 2020 and the information Technology Act, 2000 impose obligations on intermediaries to act against deceptive listings remain inconsistent and reactive rather than preventive.



REFERENCES:

1. Chiara Bartoli, Marketing Geographical indication in products in the digital age: a holistic perceptive (2021)
2. Sheeba George, Ashamol, Counterfeit Geographical indications; challenges and consequences
3. The Geographical Indication Act, 1999
4. The Consumer Protection (E-commerce) Rules,2020
5. Information Technology Act 2000
6. The Intermediary Guidelines and Digital Media Ethics Code Rules 2021
7. Geographical Indications in the Digital Marketplace: Legal Challenges and Enforcement in India -A 2025 blog-style article by CSRI-PRNUSRL (Centre for Studies in Intellectual Property Rights, NUSRL)
8. Geographical indication landscape in India: Suggestions and way forward Parveen Yadav
First published: 17 February 2026 <https://doi.org/10.1111/jwip.70015> **Digital Object Identifier (DOI)**
9. Title: “Geographical Indications and their Protection in India”
Journal: Indian Journal of Law and Rural Affairs (IJLRA), by Pratiksha Pravin Barve (2024).
10. “Geographical Indication Landscape in India: Suggestions for Strengthening the Registry and Policy” Published in Journal of World Intellectual Property (2026)