

Geographical Indications in Horticulture: An Indian perspective

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Geographical Indication, an exclusive community rights, recognizes crucial roles played by location, climate and human know-how in making the products distinguished on the basis of their unique intrinsic attributes. It acts as an effective tool in protecting and rewarding not only the market potential of elite items but also the traditional knowledge associated with them. Since the enactment of the GI Act, 89 agricultural items have been accorded with GI tags till March 2018 and among them the share of horticultural items is more than 75 percent. Among horticultural crops, maximum GIs have been accorded to fruit crops (36) followed by vegetable crops (11). Plantation crops and spices share 8 GI tags each, whereas flowering plants and medicinal and aromatic plants conferred with 5 and 2 GI tags, respectively. Mango, citrus, banana, chilli, tea, cardamom, jasmine, grapes, pineapple, brinjal, onion and coffee are important horticultural crops with regard to GI tags. The state-wise ownership of GIs in horticultural crops indicates activism of Maharashtra and Karnataka. The efforts made by public and quasi-public institutions in obtaining GI tags are indeed a significant to protect, exploit market potential and to facilitate better return to legitimate rural producer from origin-linked reputed products as under the TRIPS Agreement unless a geographical indication is protected in the country of its origin there is no obligation under this Agreement for other countries to extend reciprocal protection.

Keywords: Geographical indication, horticulture, *sui generis*, rural economy, traditional knowledge, TRIPS Agreement, WTO, Geographical Indications of Goods (Registration & Protection) Act, 1999

A Geographical Indication (GI) is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to the place of origin. In order to function as a GI, a sign must identify a product as originating in a given place. In addition, the qualities, characteristics or reputation of the product should be essentially due to the place of origin. Since the qualities depend on the geographical place of production, there is a clear link between the product and its original place of origin. In other words, GI is a type of intellectual property which identifies goods originating in a territory, region or locality, where a given quality, reputation and other characteristics are essentially attributable to their geographical origin.¹ The coveted GI tag ensures that only authorised users and those residing inside the geographic territory are allowed to use the GI tag for registered product. The goods may be agricultural, handicrafts, textiles, manufactured goods, food stuff, etc. and the indications may be any geographical name or figurative representations or any combinations of the both conveying the geographical origin of goods to which it applies.

GI protects intangible economic assets such as the attributes and reputation of a product through market differentiation. It is considered as a promising tool to maintain multi-functionality in rural landscapes and involve local populations in biodiversity management and conservation.² Trade-Related Aspects of Intellectual Property Rights (TRIPS) of the World Trade Organisation (WTO) recognize IPRs as a crucial component for the development of mankind and paved way for protection of intellectual property including potential genetic wealth through a systematic approach. Among IPRs, patent, trademark, geographical indication and protection of new plant varieties are vital tools to protect our genetic wealth and harness the market potential of elite items. These tools are in turn instrumental in the development of Indian agriculture. Article 22.1 of the TRIPS Agreement defines GI as “*Geographical indications are, for the purpose of this agreement, 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*”. In general, a geographical indication is recognised in the country in which the

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place to which the geographical indication refers is located. This country is commonly referred to as "the country of origin". Any association of persons or of producers or any organisation or authority established by or under the law can be a registered proprietor or authorized user of GI. The rightful users are entitled to prevent anybody from using that geographical indication if the goods on which the geographical indication is used do not have the indicated geographical origin. Thus GI provides comprehensive and effective protection to items registered as GI goods.^{3,4,5,6} On the other hand, the Article 23 of TRIPS Agreement provides additional protection to geographical indications only in cases of wines and spirits which means they should be protected even if there is no risk of misleading or unfair competition. The Article further imposes an obligation upon member countries to legislate to prevent the use of geographical indications regarding wines or spirits, which do not originate in the place indicated.⁷

Geographical Indication and Goods Act of India

Under the TRIPS Agreement, countries are under no obligation to extend protection to a particular geographical indication unless that geographical indication is protected in the country of its origin. The need to protect products of repute through geographical indications was acutely realized following the basmati case. In 1997, the US Patent Office granted a patent on *Basmati Rice* to an American company called *Rice Tec Inc*. In the absence of domestic legislation then to protect GIs, India had no option but to resort to the expensive procedure of challenging the patent in the US Court of Law. In view of these circumstances and to comply with the TRIPS Agreements, it was considered necessary to have a comprehensive legislation for registration and for providing adequate protection for geographical indications.⁶ Consequently, India has enacted Geographical Indications of Goods (Registration & Protection) Act in 1999 and started giving protection for GI through *sui generis* legislation (of its own kind) from 15 September 2003.¹ To facilitate GI of goods, Geographical Indications Registry headed by Registrar was set up in Chennai in 2003. The Act defines a geographical indication in relation to goods as "*an indication which identifies such goods as agricultural goods, natural goods or manufactured goods as originating, or manufactured in the territory of country, or a region or locality in that territory, where a given 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, as the case may be." The Act further clarifies that "*any name which is not the name of country, region or locality of that country shall also be considered as the geographical indication if it relates to a specific geographical area and is not used upon or in relation to particular goods originating from that country, region or locality, as the case may be.*"

The important features enshrined in the legislation are; a) it confers legal protection to geographical indications in India, b) it prevents unauthorized use of a registered geographical indication by others, c) unlike other intellectual property rights, any association of persons, producers, organization or authority established by or under the law can apply for registration of a GI, d) it provides exclusive rights to community/authorized users for GI products, e) unlike patent, GI can be continued to be protected indefinitely by renewing the registration (after ten years), f) it empowers the Central Government to give additional protection to certain goods or classes of goods, g) it prohibits the registration of a GI as a trademark to protect the interest of the community, h) recognizes GIs non-transferable as they belong to the producers of the concerned goods, i) it boosts exports of Indian geographical indications by providing legal protection, j) it promotes economic prosperity of producers, and enables seeking legal protection of GIs in other WTO member countries, k) it acts as a tool to protect and promote traditional knowledge. Registration of the GIs in India is not mandatory as an unregistered GI can also be enforced by initiating an action of passing off against the infringer. It is, however, advisable to register the GI as the certificate of registration is evidence of its validity and no further proof of the same is required.^{1,8,9}

Significance of GI

As per the TRIPS Agreement, unless a geographical indication is protected in the country of its origin, there is no obligation for other countries to extend reciprocal protection. Moreover the prevalence of information asymmetry has ill effect on marketability, profitability, product quality and consumer's preferences. Producers maintaining the quality of their products are usually exposed to unfair competition

from producers who sell lower quality products at the same price. This unethical practice of selling fake products in the name of reputed products to fetch better prices is rampant in the Indian market and even abroad. Under such circumstances the real producers suffer great financial loss, whereas consumers end up by paying inflated prices for fake goods. Moreover consumers usually do not have perfect access to information regarding the quality and prices of goods. Under this condition, GI has the potential to eliminate information asymmetry between producers and the consumers. Hence, India felt the need to equip property rights regimes to effectively protect the reputation of geographical indications and their intrinsic attributes.^{1,6,10} GI possesses unique advantages for producers as well as consumers which are being described briefly.

Products Reputation

Geographical indications are increasingly viewed as helpful tools for product identity and economic efficiency as it enables authorized producers to deliver appropriate supply to the market. Geographical indications facilitates for creation of product differentiation on the basis of attributes which in turn makes marketing supportive. Moreover exclusive rights provide unique opportunity to producers/ community for establishing a different marketing strategy and niche.¹¹

Higher Market Price

The profitability is primarily influenced by repute and quality of product, market size, degree of competition, consumer perception and demand elasticity. Geographical indications provide an effective platform for obtaining premium market price. Studies indicate that consumers are willing to pay higher price for origin-guaranteed products. French origin labelled cheeses earns more than other brand of cheese. Similarly, Italian Tuscano olive oil managed to earn 20% more market price since registration.¹¹ There are many examples which explicitly indicate higher market value of items possessing GI tags. On the other hand, GI as a concept is still at its infancy in India, however agricultural items have the potential to earn more market price.

Protection for Consumer and Producer

GIs are source identifiers as they help the consumers to identify the place of origin of the goods as well as act as the indicator to quality, reputation

and other distinctive characteristics that are essentially due to their place of origin. GIs increase the scope of better revenues for local producers and small scale entrepreneurs. Any duplication and misappropriation of GIs by unauthorized parties are disadvantageous for consumers as well as legitimate producers. Importantly, Prevalence of such type of act is likely to deceive consumers as they buy the product by considering as genuine product with specific qualities and characteristics. The Act, acts as to tool to prevent such type of malfunctioning.¹²

Protection of Traditional Knowledge

Geographical indications have been instrumental in promoting and protecting traditional knowledge as the Act affords collective rights which an important feature of TK. India is a biologically and culturally diverse country possessing rich source of products emanating from the use of biocultural knowledge of tribal peoples and local communities. These goods offer the potential for strengthening local economies and community cohesion apart from preventing erosion of biodiversity, traditional knowledge (TK) and culture. The increased market demand for biological resources and associated TK could offer new opportunities for generating benefits and enhanced incomes for indigenous and local people. The products emanating from the use of traditional knowledge like *Navara Rice*, *Kaipad Rice*, *Pokkali Rice*, etc. have been protected though GI to harness their market potential and to strengthen the socio-economic conditions of rural communities.⁹

Rural Development

Protection of GIs has significant implication on rural development by giving due recognition to our unique biodiversity and traditional knowledge. Origin-labelled products are one of the most evident manifestations of locality and are often considered useful instruments through which rural development could be fostered especially in disadvantaged areas. The monetary gain due to the market potential of origin-labelled products is shared among all the legitimate producers belong to rural areas which in turn strengthen the process of rural development and sustainability.^{13,14,15}

Status of Geographical Indications in Horticultural Crops

More than three hundred items have been accorded with GI tags and the maximum GIs has been granted to handicraft goods (177) followed by agricultural items (89). As per the registration details of GIs, horticultural items have lion's share in agricultural goods by covering more than 3/4 of items (Table 1).

Table 1 — List of GI tags accorded to horticultural crops

Crop	Name	State	Specific character
Fruit crops (36)			
Mango	Laxman Bhog Mango		Fruit quality
	Khiraspati (Himsagar) Mango	West Bengal	Fruit quality
	Fazli mango of Malda		Fruit quality
	Mango Mallihabad Dusseheri	Uttar Pradesh	Fruit quality
	Appemidi Mango	Karnataka	Pickle making
	Gir Kesar Mango	Gujarat	Fruit quality
	Marathwada Kesar Mango	Maharashtra	High pulp content and shelf life
	Baiganapalli Mango	Andhra Pradesh	
	Jardalu mango	Bihar	Thin peel and aroma
Citrus	Coorg Orange (<i>Citrus reticulata</i>)	Karnataka	Fruit quality
	Nagpur Orange (<i>Citrus reticulata</i>)	Maharashtra	Fruit quality
	Arunachal Orange (<i>Citrus reticulata</i>)	Arunachal Pradesh	Fruit quality
	Khasi Mandarin (<i>Citrus reticulata</i>)	Meghalaya	Fruit quality
	Jalna Sweet orange (<i>Citrus sinensis</i>)	Maharashtra	Sweetness and juice content
	Devanahalli Pomelo (<i>Citrus grandis</i>)	Karnataka	Pink flesh
	Kachai Lemon (<i>Citrus jambhiri</i>)	Manipur	Flavour, vitamin content, juice quality
	Memang Narang (Indian wild orange – <i>Citrus indica</i>)	Meghalaya	Medicinal value
Banana	Nanjangud Banana	Karnataka	Fruit quality
	Virupakshi Hill Banana	Tamil Nadu	Flavour and shelf life
	Sirumalai Hill Banana		Flavour and shelf life
	Chengalikodan Nendran Banana	Kerala	Taste, bunch shape and fruit colour
	Kamlapur Red Banana	Karnataka	Medicinal properties and low sugar content
Grape	Jalgaon Banana	Maharashtra	Fruit quality and shelf life
	Nashik Grapes	Maharashtra	Berry colour and quality
	Bangalore Blue Grapes	Karnataka	Foxy flavour
	Sangli Raisins	Maharashtra	Quality
Pineapple	Tripura Queen Pineapple	Tripura	Fruit quality
	Vazhakulam Pineapple (Queen)	Kerala	Sweetness and flavour
Litchi	Tezpur Litchi	Assam	Fruit colour and aril quality
Strawberry (<i>Fragaria x ananassa</i>)	Mahabaleshwar Strawberry	Maharashtra	Fruit quality
Guava	Allahabad Surkha	Uttar Pradesh	Pulp colour and quality
Custard apple	Beed Custard Apple	Maharashtra	Sweetness
Fig	Purandar Fig	Maharashtra	Size, colour, taste and Fe content
Pomegranate	Solapur Pomegranate	Maharashtra	Fruit quality, antioxidant property
Sapota	Dahanu Gholvad Chikoo	Maharashtra	Unique taste
Kokum	Sindhudurg & Ratnagiri Kokum	Maharashtra	
Vegetable crops (11)			
Chilli	Naga Mircha (<i>Capsicum chinense</i>)	Nagaland	High pungency
	Guntur Sannam Chilli (<i>Capsicum annuum</i>)	Andhra Pradesh	Pungency, colour
	Byadagi Chilli (<i>Capsicum annuum</i>)	Karnataka	Colour, mild pungency, Oleoresin
	Mizo Bird's Eye Chilli (<i>Capsicum chinense</i>)	Mizoram	Pungency
	Bhiwapur Chilli	Maharashtra	

(contd.)

Table 1 — List of GI tags accorded to horticultural crops (*contd.*)

Crop	Name	State	Specific character
Brinjal	Udupi Mattu Gulla Brinjal	Karnataka	Unique taste
	Jalgaon Brinjal	Maharashtra	
Bean	Waghya Ghevada	Maharashtra	Taste and rich in protein
Onion	Bangalore Rose Onion	Karnataka	Bulb shape and pungency
	Lasalgaon Onion	Maharashtra	Aroma, shelf life, colour
Tree tomato	Naga Tree Tomato (<i>Cyphomandra betacea</i>)	Nagaland	Pickle, Chutney
Spices (8)			
Cardamom	Sikkim Large Cardamom (<i>Amomum subulatum</i>)	Sikkim	Pod quality
	Alleppey Green Cardamom (<i>Elettaria cardamomum</i>)	Kerala	Pod quality, oil content
	Coorg Green Cardamom	Karnataka	Fruit quality
Ginger	Assam Karbi Anglong Ginger	Assam	Flavour and pungency
Pepper	Malabar Pepper	Kerala	Berry flavour
	Tellicherry Pepper	Kerala	Aroma and pungency
Turmeric	Waigoan Turmeric	Maharashtra	
Bay leaf	Uttarakhand Tejpat	Uttarakhand	
Plantation crops (8)			
Tea	Darjeeling Tea (word & logo)	West Bengal	Flavour
	Kangra Tea	Himachal Pradesh	Flavour
	Nilgiri (Orthodox) Logo	Tamil Nadu	Quality
	Assam (Orthodox) Logo	Assam	
Coffee	Monsooned Malabar Arabica Coffee		
	Monsooned Malabar Robusta Coffee	Kerala	Bean quality and aroma
Coconut	Eathomozhy Tall Coconut	Tamil Nadu	Nut quality
Cashew	Vengurla Cashew	Maharashtra	Nut quality
Flower (5)			
Jasmine	Mysore Jasmine (<i>Jasminum sambac</i>)	Karnataka	Fragrance
	Hadagali Jasmine (<i>Jasminum auriculatum</i>)	Karnataka	Aroma
	Madurai Malli (<i>Jasminum sambac</i>)	Tamil Nadu	Thick petals and fragrance
Kewra (<i>Pandanus amaryllifolius</i>)	Ganjam Kewra Rooh	Odisha	Fragrance
Aromatic plants (2)			
Betel wine (<i>Piper betel</i>)	Mysore Betel Leaf	Karnataka	Smooth texture and hot taste
Betel wine	Magahi Paan	Bihar	Soft texture and unique taste

Among horticultural crops, more than half of the items belong to fruit crops (36), whereas the share of

vegetable crops (11), plantation crops (8), spices (8), flowers (5) and aromatic plants (2) is relatively less

(Fig. 1). Among fruit crops, maximum number of GI tags have been accorded to mango and citrus followed by banana. Geographical indications have also been granted to elite clones of grape, pineapple, litchi, strawberry, guava, kokum, fig and custard apple (Table 1). Among vegetable crops, maximum number of GI tags is accorded to chilli, followed by brinjal and onion. Tree tomato of Nagaland and a unique type of bean of Maharashtra are also in the list of registered GIs. Tea is the most important plantation crop for geographical indications. Interestingly, Darjeeling tea is the first item accorded with GI tag in 2004. Apart from tea, coffee, coconut, cashew and betel are also reflected in the GI list. Cardamom is the most important spice crop for geographical indications followed by pepper. Elite clones of ginger, turmeric and bay leaf are also accorded with GI tags. Among flowers, four types of jasmine and two types of *Kewra* have been granted GIs for their unique flavour and market potential.¹⁶

The state-wise ownership of GIs indicates more activism of Maharashtra and Karnataka in obtaining GI tags for unique clones of horticultural crops (Fig. 2). Tamil Nadu, Kerala, West Bengal, and north-eastern states also showed their activism in protecting their elite horticultural crops/variety. On the other

hand, states like Punjab, Haryana, Rajasthan, Chhattisgarh, Jharkhand, Bihar, Madhya Pradesh and Jammu & Kashmir have no GI for horticultural crops in their credit.

There is a temporal variation in conferring GIs to horticultural crops. Initially few items were granted GI followed by a substantial increase in the number registered items. The first GI tag was conferred to *Darjeeling Tea* (word & logo) in 2004 for its distinctive naturally-occurring quality and flavour and market potential. This initiative encouraged public and quasi-public institutions to protect and enhance market potential of their unique items. The year, 2007-08, 2008-09, 2014-15 and 2016-17 are important in terms of GI allocation (Fig. 3).

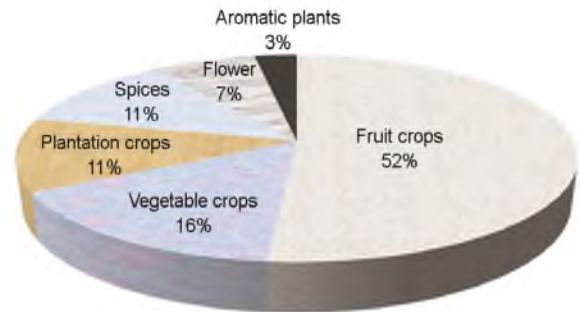


Fig. 1 — Geographical indications in horticultural crops

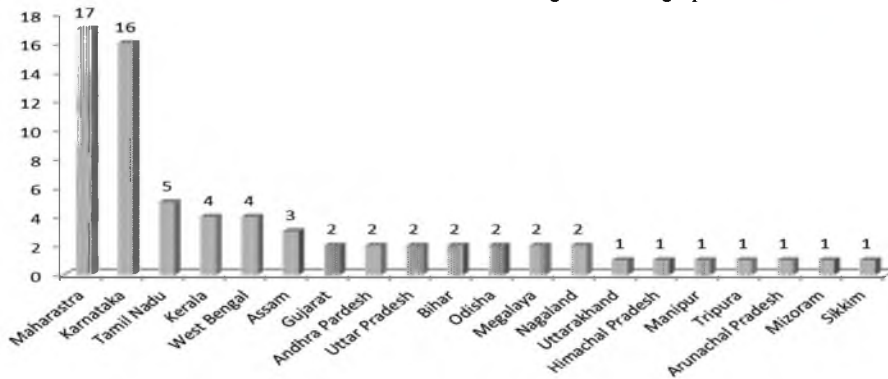


Fig. 2 — State-wise ownership of GIs in horticultural crops

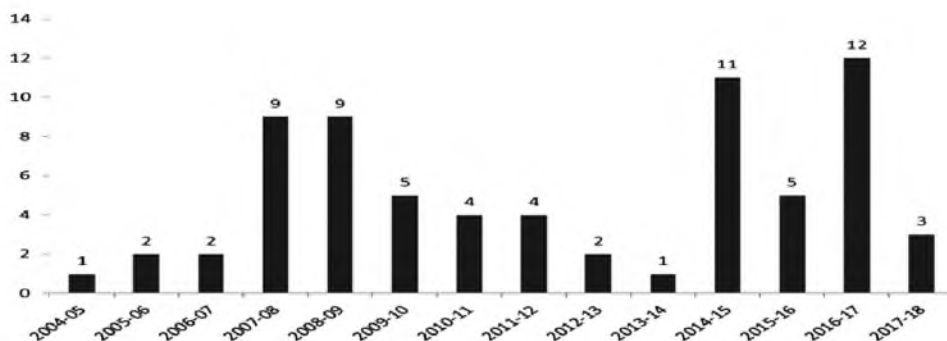


Fig. 3 — Trends in the allotment of GIs in horticultural crops

Issues and Concern

Unlike other IPRs, the concept of GI has been received favourably in the developing countries. The potential socio-economic benefits that GIs could accrue to developing countries have led many to believe that GI is the 'sleeping beauty IPR'.¹⁷ GI is instrumental in protecting the ownership right on the natural resources, natural product and by-products, and manufactured goods. It also acts as an effective tool for development of rural enterprises through market access. The key socio-economic issues relating to geographical indications particularly relevant to developing countries are misappropriation, protecting traditional and indigenous knowledge and culture, improving market access, creating niche markets, protection of reputation, potential income effect and rural development. It has also been observed that origin-labelled products are often considered useful instruments to preserve local culture and traditions and to foster rural development, especially in disadvantaged areas.^{14,17} The rural development potential of GIs is dependent on inclusive and representative producers that ensure participation of local actors and their capacity building to harness more benefits from the production and supply chain. Success in exploiting the economic potential of a GI depends primarily on effective marketing and promotional efforts to develop consumer perceptions about the 'niche' acquired by the product on account of product-place link. In India, there are some issues in realizing the potential of commercial benefits out of GI registration.

Lack of Post-GI Protection Mechanism

Perhaps the most important concern is the lack of an effective post-GI mechanism to prevent unethical marketing. There has been reasonably good progress in granting GIs to agricultural items, but only registration of goods *per se* does not fulfil the objectives of the act, unless it is backed by sound enforcement mechanism both in domestic and export markets. The role of Government is vital in ensuring protection of registered items from unfair competition as most producer groups do not have the resources and expertise to effectively defend or promote their GI brand.^{4,18}

Appropriateness of Identification of Items

It has also been observed that items with GI tag don't invariably possess high market potential as applicants often do not assess the commercial status/prospect of a GI product in the domestic and

export markets. The role of Government is vital in formulating strategies for branding, marketing and promotion of products especially in foreign countries to ensure better economic benefit for producers to enhance the pace of rural development process.¹⁹

Identification of Beneficiaries (Producers)

Various economically powerful intermediaries still continue their control over markets and the real producers are still dependent on these intermediaries for market access. The impact analysis on the socio-economic implication of GI tags on the producers of Malabar Pepper and Vazhakulam Pineapple indicated that they were not being directly benefitted though GI as it was intended to help the marketing of the product through more brand visibility. There was also a general feeling that it is the traders who reap benefit out of the GI tag and not the farmers.¹⁹

Conclusion

The effort made by public and quasi-public institutions towards ensuring legal protection for Indian GIs is itself a significant step to protect and exploit the market potential of origin-linked reputed products. As most of the GIs are linked to rural culture, climate and lives of the communities we have a considerable scope for building the brand image of such exotic products by highlighting the cultural aspects associated with them. Most of the registered items are exploiting the market potential and consequently producers are being benefitted. However, in many cases the benefits of GIs are being reaped primarily by intermediaries. If we want to strengthen rural economy such act should be minimized by strict implementation of rules and regulations. Effective inter-institutional linkages and coordination are needed to avoid duplication of efforts and optimization of return to facilitate the process of exploiting the commercial and socio-economic potential of GIs in India. There has been substantial progress in conferring GI tags to potential elite clones of horticultural crops, however the Act is at initial stage and the levels of awareness among producers and traders are perhaps low with regard to the processes for registration and social and economic significance of registered items.

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