

## **Geographical Indications and Biodiversity in the Western Ghats, India**

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# Geographical Indications and Biodiversity in the Western Ghats, India

## Can Labeling Benefit Producers and the Environment in a Mountain Agroforestry Landscape?

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A geographical indication (GI) is a form of protection highlighted in the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement of the World Trade Organization (WTO). It protects intangible economic assets such as the quality and reputation of a product through market differentiation. It is considered a promising tool at the international level to maintain multifunctionality in rural landscapes and involve

local populations in biodiversity management and conservation. Using the example of an existing GI for Coorg orange, a crop frequently associated with coffee agroforestry systems in the mountain region of Kodagu (Western Ghats, India), we discuss how a GI can be successfully used by local producers and what conditions are needed for it to have a positive impact on the landscape and its associated biodiversity.

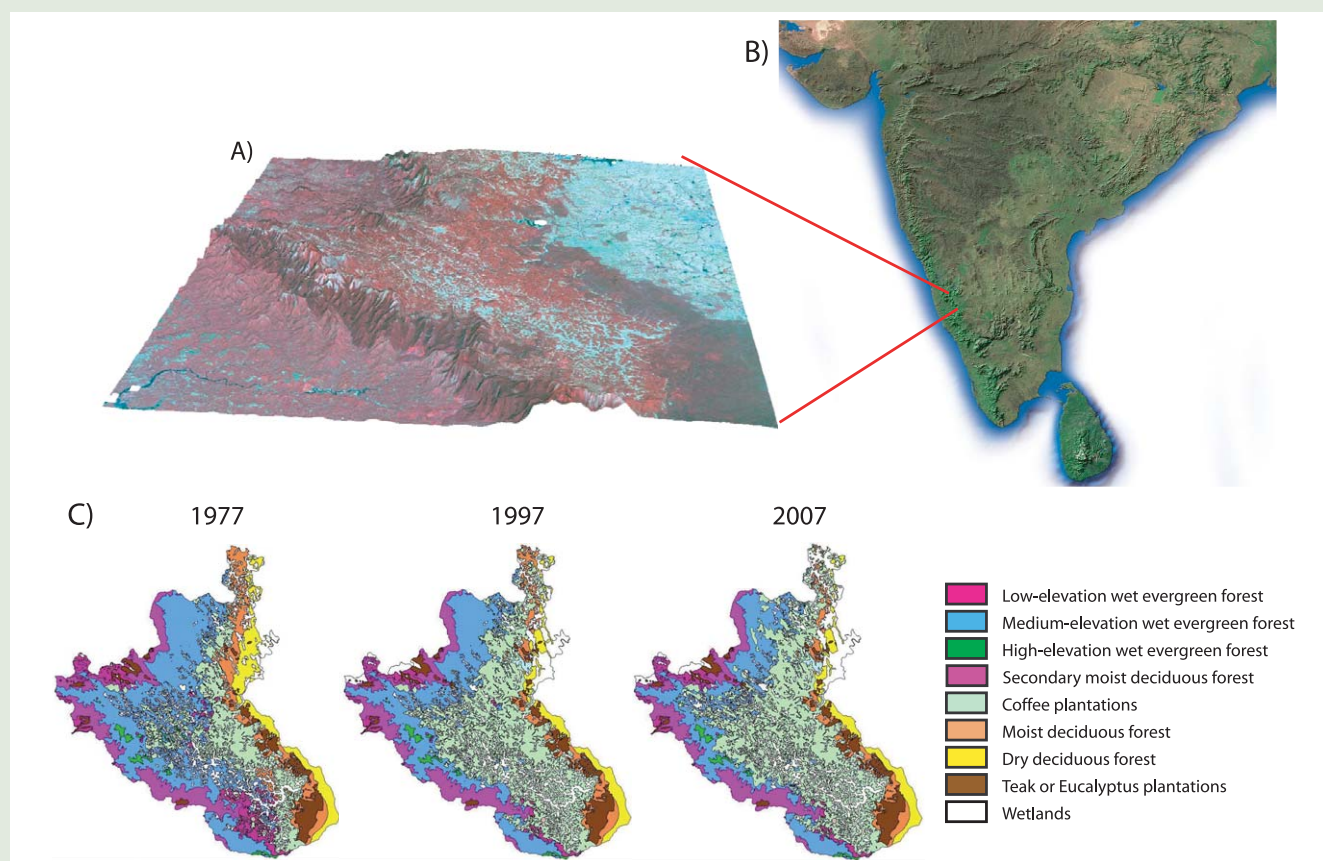
### A protective label

A geographical indication (GI) identifies a good as originating in a country, a region or a locality where a given quality, reputation, or other characteristics of such a good are essentially attributable to its geographical origin.

GIs were developed to protect consumers, offering reliable information about the goods they buy. It was initially thought that GIs could also afford protection to producers by fighting against

unfair competition and “reputation theft.” The third generation of GIs extended this concept to the rural landscape. If they could be used to protect producers, they could be used for rural development. Only recently was the concept extended to the environment and to the cultural and biological diversity associated with production. What remains to be seen is whether and how GIs can have an impact on the management and conservation of the cultural and biological diversity associated with products.

**FIGURE 1** Kodagu district (A) is located in the Western Ghats of India (B). Land use (C) has undergone drastic changes over the last 30 years, with coffee plantations replacing forest—essentially medium-elevation, wet evergreen forest. (Source of maps: French Institute of Pondicherry)



## The legal framework

India has taken the lead in protecting its origin-based products and associated traditional knowledge (TK) through the promotion of GIs, with a *sui generis* protection system that is regarded as a model for other countries. Conflicts over spotlight products such as Basmati rice and Darjeeling tea have created nationwide awareness and, in accordance with the WTO agreement on TRIPS, India passed the Geographical Indication of Goods Act in 1999, which entered into force in 2003.

Until now, there have been more than 80 applications for GIs in the field of textiles, handicrafts, and agricultural products. More than 30 have been registered. Darjeeling tea is one of the best examples of agricultural products originating in mountain areas that had the required reputation and historical evidence to successfully apply for a GI. The application must show the uniqueness of the product due to its geographical origin—a combination of human and natural factors. The application includes a description of the method of production, historical proof, and a map.

Two types of stakeholders are directly involved in a GI. The first is the applicant; the second is the authorized user of the

GI. The applicant can be any association of persons or producers, or any organization or authority representing the interest of the producers of the concerned goods. Should the application be successful, the applicant will become the registered proprietor of the geographical indication. Since the registered proprietor represents the interests of producers, a GI is supposed to be a collective right.

## Kodagu district: a multifunctional landscape mosaic

Kodagu district in Karnataka state ( $75^{\circ}25'-76^{\circ}14'$  E,  $12^{\circ}15'-12^{\circ}45'$  N) is a major coffee-growing region located in the Western Ghats mountains (Figure 1). It produces nearly one-third of Indian coffee, mostly in agroforestry systems under native tree cover. The district name under British rule was Coorg, and it is under this name that the product we discuss here is known today. We refer to Kodagu when speaking of the district, and to Coorg orange when we discuss the product.

Forest represents almost 50% of the district. Central Kodagu is dominated by agricultural land, essentially coffee estates that cover 30% of the total area of the district. Coffee in Kodagu is grown under tree shade. The other crops associated

**FIGURE 2** Landscape mosaic in Kodagu district: paddy fields occupy the lowlands while coffee plantations and forest fragments are located on the hilltops. A belt of forest reserves and protected areas surrounds the district, as seen on the horizon. (Photo by Claude Garcia)





**FIGURE 3** Coorg orange is known for its sweet taste, its greenish color, and its tight skin. (Photo courtesy of DoH)

*“We are not the owners of the GI, we are the guardians. We will hand over the ownership to the producers.” (Department of Horticulture)*

with coffee are pepper, cardamom, oranges, and rice in paddy fields. Altogether, forests and agroforests account for nearly 80% of the district.

The landscape mosaic in Kodagu is completed by the existence of forest fragments embedded in the human-dominated landscape of the coffee belt (Figure 2). Those forest remnants improve landscape connectivity, serving as corridors for numerous species. Together with the coffee plantations, they provide a series of environmental services in terms of pollination, carbon sequestration, and water recharge that the scientific community is only now starting to assess. An assessment of the Kodagu landscape would be incomplete if there was no mention of the role sacred forests play in village life and in the identity and ethos of the inhabitants.

Over the last 30 years, in response to external market-driven dynamics, intensification of coffee cultivation has led to the loss of 30% of the forest cover, essentially in the species-rich wet evergreen belt of the district. Hence, massive landscape fragmentation, habitat loss, and biodiversity depletion are continuing.

Still, Kodagu is known for its exceptional biodiversity. The question is how this reputation could be used to valorize origin-based products whose quality stems from this high biodiversity. A possible strategy could be to use a GI, provided that the specifications for the GI application are environmentally friendly and compatible with the maintenance of the landscape mosaic.

### Coorg orange: GI administration and the planter

#### The GI application

Coorg orange (Kodagina kittale, *Citrus reticulata*) is an ecotype of mandarin (Figure 3). It is a small tree that grows well in evergreen, subtropical hilly tracts at elevations between 600 and 1200 m. It requires annual rainfall of 80–200 cm and a warm winter climate. Coorg orange was a crop frequently associated with coffee, but diseases and lack of interest among farmers eager to involve themselves in more lucrative cash crops (coffee and pepper) have almost entirely wiped out the crop over the

last 50 years. The Department of Horticulture (DoH) of the government of Karnataka filed an application for a “Coorg Orange” GI, which was registered in 2004.

The GI application in itself is a 9-page public document. It describes the fruit and provides information about the kind of soil and bioclimate in which the orange grows. It makes little or no mention either of the landscape mosaic associated with the crop or of the traditional knowledge associated with cultivation of the crop. The map provided is not limited to Kodagu, as it also includes the districts of Hassan and Chickmangalur, which are also coffee production areas.

#### The role of the administration

In response to the conflicts over Basmati rice, the government of India took administrative steps to identify and protect local varieties and local products, in a push for protection against biopiracy. The GI on Coorg orange was then filed by the DoH, in a top-down, pro-active approach. Since it represented the government, the rationale was that it would stand in for the orange producers, who, in the view of the Department, were too few and too unorganized to bear the costs of drafting the GI application.

The two main objectives pursued by the DoH were to protect and revive a traditional crop variety and to provide high quality (disease-free) plant material, bringing economic development to the region (Figure 4). A third objective appeared later, once the GI had already been registered: it could be used to protect the ecosystem where the orange is grown.

#### Transferring the GI to producers

To be successful, a GI should rest in the hands of the producers located in the area. Therefore, it should be drafted while considering the knowledge producers have about cultural practices, which should be embedded in the specification. Only then can the cultural and biological diversity associated with the product be maintained in the area by their proprietors. The main challenge faced now by the DoH is successful transfer to the producers.

This particular GI is meant as a tool for marketing the orange, even if until

now no cases of misuse have been encountered. The strategy of the Department is to educate the farmers about the GI, considered a collective right, and then try to gather them in a registered society to whom the ownership of the GI can be transferred.

In order to liaise with the producers, an arrangement was made via a local NGO, Kodagu Model Forest Trust (KMFT). The DoH asked KMFT to revive cultivation via a package of organic methods to be proposed to the planters. Outreach began, with farmers identified throughout the entire district. But transfer has stalled, since there is uncertainty over whether or not the organic package should be part of the Coorg Orange GI. The DoH will retain the GI until they feel that planters have organized themselves and adopted good practices. According to the DoH, farmers will then need to produce a commercial development plan (fruit/juice/brand name) and publicize the product and its GI legal aspects in local papers.

## Obstacles

Several challenges must be faced which could impair successful transfer of the GI. First, there is a serious lack of awareness among the planters about what a GI is. This is slowly changing, through outreach and dissemination from NGOs, government agencies, the media, and the research projects present in the area. Second, the package developed aims to promote best practices among the orange and coffee growers. It is based on the assumption that, aware of what services they get from their environment, growers will strive to maintain it. But much as the government through its agencies and the NGOs might wish to embed the multifunctionality of the landscape in the GI, there also seems to be a lack of awareness about this aspect among the planters (see Box).

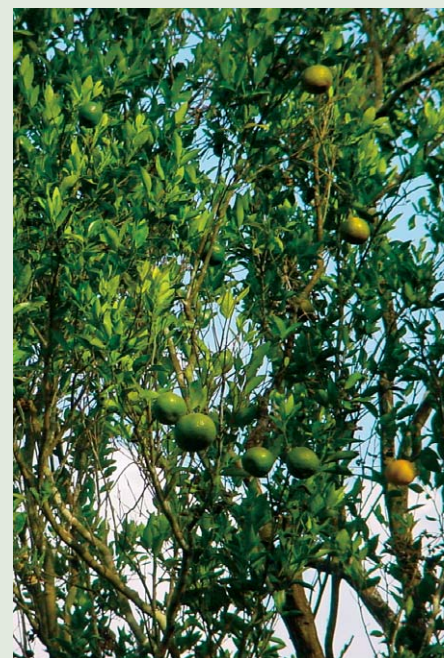
Third, relations between the producers and the current owner of the GI are shaky at best. And fourth, it could be argued that the package of organic practices advocated by KMFT and the DoH is not an integral part of the GI or of the product itself. This can be added in an amended GI application, but with the

result that it would exclude any other method of cultivating Coorg orange. As such, it could probably be challenged successfully if planters raised an objection.

## Lessons learned and the way forward

To this day farmers do not use the GI to market their oranges, and the supply chain is very limited. Based on the initial interactions KMFT had, it is now proposed that other methods of cultivation should also be permitted—but a few basic organic packages have to be implemented. KMFT and the DoH are working out an arrangement to register the Kodagu Orange Growers Cooperative Society as an authorized user of the GI. Surprisingly, no stakeholder has yet come up with a proposal to actually amend the GI specifications so as to include environmentally sound practices (Figure 5), even though this option is clearly provided for under the Indian GI act.

The example of the Coorg orange provides an opportunity to discuss how a GI can be successfully used by local producers, and what conditions are needed for it to have a positive impact on the landscape and on conservation of both biological and cultural diversity. As things



**FIGURE 4** Coorg orange tree: the crop has all but vanished from the district. It now remains only in pockets where it seems to be resistant to diseases. (Photo by Claude Garcia)

## Lack of knowledge and lack of trust

Q. "What do you or your farm get from the surrounding areas?"

A. "We do not get any help or services from the surrounding area (landscape)."

Q. "What about rivers?"

A. "We don't use the water; we have our own water tank."

Q. "What about forests?"

A. "More than help from forests we have problems from it, like elephants."

(MB, Nittur village)

"Whatever I take, I pay for it and take; ... once I pay, it is not a service... We call something service when it is free."

(MA, Devarapura village)

"They sit somewhere and tell us to do things. I know more things than many of them [agronomists, horticulturists] about the problem." (AP, Mallur village)

**210** **FIGURE 5** Coorg orange harvest: planters used to grow orange as a single crop. It is now grown in association with coffee, even though both crops have different shade requirements. (Photo courtesy of DoH)



stand today, the Coorg Orange GI may have prevented this local variety from disappearing. However, several conditions

make it doubtful that this GI will have an impact on the biodiversity and landscape dynamics of Kodagu:

- The way the GI was initiated, via a government agency speaking on behalf of the producers rather than by the producers themselves;
- The fact that the specification was not drafted with the objective of maintaining and fostering multifunctionality within the landscape;
- The lack of local awareness of the environmental services provided by the landscape and of the GI tool itself.

For a GI to be successful it needs to secure income for the producers. For this to happen, the GI needs to be filed or at least appropriated by the producers. For a GI to be successful in protecting biodiversity, the environmentally sound practices identified need to be embedded in the specification of the GI. But choosing environmentally sound practices involves opportunity costs that need to be taken into account, lest the GI fail to become profitable and therefore defeat its purpose.

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