

RESEARCH ARTICLE

Collective Action Milieus and Governance Structures of Protected Geographical Indications for Coffee in Colombia, Thailand and Indonesia

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In an attempt to capture a greater share of the symbolic value of coffee in the market, some producers have started to safeguard the geographical names of specific origins through Geographical Indications in their home country, and then subsequently registering Protected Geographical Indications (PGI) under European Union (EU) law. To enable effective value capture, such initiatives require successful collective action. We explain how the need for collective action has manifested within four coffee Protected Geographical Indications in Colombia, Indonesia and Thailand (2 cases). Based on the Institutional Analysis and Development (IAD) framework developed by Elinor Ostrom, we examine the cases following a common analytical approach, encompassing: i) contextual setting of product and territory; ii) actors involved; iii) institutional arrangements and action arena; and iv) the outcome of these arrangements. The cases involved a diversity of applicants including a producer association (Colombia), a social foundation and a private company (Thailand), and a government-supported consortium (Indonesia). The process of institutionalizing the GI required powerful, and well-resourced actors to assume a lead role resulting in relatively little participation from actual producers themselves. Therefore, this does not truly satisfy the IAD requirements for effective collective action, such compliance with the EU requirement for collective action was mainly observed as an administrative formality. The design of guiding rules for collective action processes are seen to significantly affect their effectiveness and the distribution of any benefits generated. This article emphasizes how this design is shaped by the positionality and particular interests of the actors involved, their different capacity to exert power and influence, their diverse attitudes towards moral legitimacy, and varying relationships with external actors such as development agents, research organizations and state agencies.

Keywords: coffee; collective action; EU protected geographical indications; Colombia; Indonesia; Thailand

1. Introduction

Collective action is carried out by a group to pursue the members' shared interests (Scott and Marshall 2009). According to Ostrom (1990, 29), "collective action takes place when a group of principals can organize and govern itself to obtain continuous joint benefits when all principals face temptations to free-ride, shirk, or act opportunistically in another way". This paper addresses attempts by coffee producers to take collective action to safeguard Geographical Indications. Additionally, defending a collective reputational resource allows producers to cope with coffee market liberalization and protect well-known geographical names after the dismantling of quotas under the International Coffee Agreement (ICA) in 1989 and the accompanying shift in power to downstream roasters and retailers in the value chain (Daviron and Ponte 2005; Grabs and Ponte 2019).

Grabs and Ponte (2019) depict three main phases to understand the power dynamics along the global value chain for coffee: the ICA phase from 1962 to 1989; the liberalization phase from 1989 to 2008; and the diversification and reconsolidation phase (2008 to present). Earlier, Daviron and Ponte (2005) emphasized how value was increasingly embedded in the symbolic quality and in-person services (intangible quality attributes) of coffee. This implies that producers need to assume greater control of these immaterial or in-person means of quality production rather than selling a highly commercialized and standardized product (Samper et al. 2017) and this has manifested in various attempts at product differentiation, some of which are producer-driven (Fischer 2017; Jaffee 2007). These attempts include voluntary sustainability and quality standards such as Fairtrade, Organic, and Rainforest Alliance, but also include Geographical Indications (GIs) and producer involvement in “Cup of Excellence” events (Neilson et al. 2018; Quiñones-Ruiz et al. 2015; Teuber 2010).

The ability of sustainability standards, however, to induce significant change for producers has been increasingly questioned due in part to their mainstreaming and inability to ensure quality differentiation at the producer level (Bray and Neilson 2018; Grabs 2018; Mutersbaugh et al. 2008). Disillusionment with standards has encouraged some roasters to engage in direct “relationship coffees” to improve both producers’ livelihoods and their corporate images (Vicol et al. 2018). However, the Indonesian cases presented by Vicol et al. (2018) show that although initially participating producers (usually gathered into producer groups) are marginally better off, benefits from these relationships eventually accrue primarily to local elites. While sustainability standards and relationship coffees are essentially institutions designed and maintained by actors in the Global North, the protection of Geographical Indications (GIs) is distinct in that they involve standards framed, established and implemented by the producers themselves. As such, GI protection offers a possibility for producers to partake in symbolic quality construction and then protect those symbolic quality attributes through collective action and self-governing of rules for production, marketing, labelling, and surveillance.

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) is a multilateral legal agreement between all member nations of the World Trade Organization (WTO). It provides an umbrella legal framework for GIs internationally, since it requires all signatory states to establish a national legal framework for GIs, although these vary considerably between countries. Under Article 22 of TRIPS, GIs are considered “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”. This link between specific quality attributes and geography applies to all producers within a territory and so the explicit aim of quality differentiation requires collective action. GI protected goods are thus themselves collective goods derived from the use of shared local resources and assets (the place name), which require the cooperation and collective action of producers and processors (Barham 2003; Biénabe et al. 2013; Bowen and Mutersbaugh 2014). Biénabe et al. (2013) highlight the Karakul case as a “tragedy of the commons” that could have been avoided by designing collective institutional frameworks. Considerable rules, monitoring and sanctioning efforts are needed to preserve the identity and specific quality of the GI products, to develop their reputation and to effectively exclude illegitimate users. Indeed, the necessary institutions for collective action dealing with intellectual property rights are seen as an increasingly important focus within the commons’ literature (see van Laerhoven et al. 2020).

This paper sheds light on the types of actors involved and their role within the GI registration process, as explained by the institutional arrangements reached under the lens of collective action. It is noteworthy that according to the regulatory framework of the studied countries (Colombia, Indonesia and Thailand),¹ group of producers (or government authorities on their behalf) are entitled to apply for GIs. Therefore, our premise for starting this article is based on the expectations within national legislations that collective action processes will be pursued. Our goal is to examine these collective action processes in greater detail. This analysis is based on Ostrom’s work dealing with collective action to analyze institutions, understood as “human-constructed constraints or opportunities within which individual choices take place and which shape the consequences of their choices” (McGinnis 2011, 170). As with the collective management of natural resources, GI protection also requires the design of specific rules for GI use (Quiñones-Ruiz et al. 2015, 2016).

¹ Although in all countries the state plays an important role and can be the owner of the GI, it also allows producer groups to apply for GIs. In Colombia, the Superintendence of Industry of Commerce (SIC) regards denomination of origin as a collective right where the state is the rights holder, but the management can be granted to public or private entities (e.g. associations) (SIC, n.d.). The Thai Act on Protection of Geographical Indications also allows any group or organization of consumers to apply for GIs (Ngokkuen and Grote 2012 based on Thai GI Protection Act 2546). In Indonesia, GI protection can be granted to any organization representing the community in the area which produces the goods (Indonesia Trademark Law 2001).

Factors both internal and external to the group, such as types of actors and their roles (attributes of the community), biophysical conditions, and rules-in-use (institutional arrangements) shape the structure of action situations (Ostrom 2010). Poteete et al. (2010) consider action situations as social places where actors make decisions, solve problems, fight and interact – linked to potential outcomes, costs and benefits. Actors represent various participants who individually take part in these specific action situations (Ostrom 2011).

We aim to understand the role of collective action and the nature of governance structures followed by producer groups for Protected Geographical Indications (PGI) in the coffee sector through a cross-country comparative study. This study addresses PGI protection following registration under the EU GI law only – not the mutual recognition that follows bilateral agreements between the EU and other countries. A particularity of EC Council Regulation 1151/2012 is its needed requirement for collective action when registering GIs, whether as Protected Geographical Indications (PGI) or as Protected Designations of Origin (PDO). This requirement is indicated by Article 49 of the Regulation, which states that “Applications for registration of names under the quality schemes referred to in Article 48 may only be submitted by groups who work with the products with the name to be registered.” The need for GI collective action is to be pursued by a ‘group’, which is understood as “any association, irrespective of its legal form, mainly composed of producers or processors working with the same product” (under Article 3). Furthermore, according to Article 7, the Product Specification, which is the basis for the GI registration and protection, should include: the name to be protected as a designation of origin or GI; a description of the product; the definition of the geographical area; evidence that the product originates in the defined geographical area; a description of the production method; the link between the quality or characteristics of the product and the geographical environment; the link between the quality of the product and the geographical environment or where appropriate, the link between the given quality, the reputation or other characteristic of the product and the geographical origin, and the name and address of the authorities or the bodies verifying compliance with the provisions of the Product Specification. PDOs are linked to a product that originates in a specific place and all production steps have to occur in the delimited geographical area, whereas under PGI protection only one production step is required to occur in the defined geographical area. In this paper, we examine four case studies where conformance to EU GI requirements (510/2006 and 1151/2012) is a common factor, and seek to understand how this particular need for collective action under EU law has manifested within coffee GIs, and to what effect. Our comparative study covers coffee producers in Colombia (one case), Thailand (two cases) and Indonesia (one case) who have registered PGIs in the EU in 2007, 2015 and 2017 respectively.

The next section presents the methods and the analytical framework followed in our study. Section three presents the main findings of the case studies, while section four draws on these empirical findings to discuss broader implications and to highlight our conceptual contribution.

2. Methods

We apply a comparative case study approach drawing upon Ostrom’s (2007) IAD framework and the work done by Quiñones-Ruiz et al. (2016). While Quiñones-Ruiz et al. (2016) illustrated the transaction efforts and outcomes of diverse GI registration processes, we focus on the understanding of the collective action in coffee chains (e.g. actors involved, institutional arrangements and the outcome of the collective interactions among actors).

We apply a cross-country comparative case study approach. Indeed, Flyvbjerg (2006, 1) suggests “that a scientific discipline without a large number of thoroughly executed case studies is a discipline without systematic production of exemplars, and that a discipline without exemplars is an ineffective one”. The motivation to carry out this study commenced with an examination of *Café de Colombia*, which was the first PGI registered for coffee in the EU (Quiñones-Ruiz et al. 2015). By means of the DOOR database (an EU database that publishes and manages all registered PDOs/PGIs; EC 2019), we subsequently identified registered PGIs for coffee in Thailand and Indonesia, which had been less thoroughly analyzed than the relatively well-studied *Café de Colombia* PGI.

We therefore adopted a comparative approach to examine all four EU-registered PGIs for Arabica coffee (as of October, 2019): *Café de Colombia* PGI (2007), *Kafae Doi Tung* and *Kafae Doi Chaang* from Thailand (2015) and *Kopi Arabika Gayo* from Indonesia (2017). All four EU registrations followed an earlier registration within origin countries (**Table 1**), and were each coordinated by a leading organization: the Federación Nacional de Cafeteros de Colombia (FNC, thereafter called the “Federation”); the Mae Fah Luang Foundation under Royal Patronage (thereafter called the “MFLF”); the Doi Chaang Coffee Original Company, Ltd. (thereafter called the “DCCO”), and the Masyarakat Perlindungan Kopi Gayo (Gayo Coffee Protection Society, thereafter called the “MPKG”).

Table 1: Registration dates of GIs at origin and in the EU.

	Café de Colombia	Kafe Doi Tung	Kafe Doi Chaang	Gayo Arabika Kopi
GI registration in origin country	<i>Denominación de Origen Café de Colombia</i> in 2005	กาแฟดอยตุง (<i>Kafe Doi Tung</i>) in 2006 กาแฟดอยช้าง (<i>Kafe Doi Chaang</i>) in 2007		<i>Indikasi Geografis Kopi Arabika Gayo</i> in 2010
PGI registration in the EU	2007	2015		2017

Source: Based on EC 2019.

Table 2: Source of data collection.

	Café de Colombia	Kafe Doi Tung	Kafe Doi Chaang	Gayo Arabika Kopi
Affiliation and number of interviewees	coffee producers (9), cooperatives (5), other buying points (1), municipal/state communities (7), Federation (5), Cenicafe (2), Quality control (4), Experts (3)	coffee producers (8), Kafe Doi Tung (7), Governmental agents (2) Experts (8)	coffee producers (10), other buying points (3), other coffee processors (3), Governmental agents (2) Experts (8)	coffee producers (6), cooperatives (26), village collectors (2), trader (1), certification body (2), Governmental agent (2), Experts (2)

Source: Authors.

Prior to the fieldwork² we carried out a literature review on GIs for coffee in general with a special focus on the selected cases and analyzed relevant documents such as registration documents found in the DOOR database (EC 2019). We conducted semi-structured interviews with value chain actors, experts and government authorities (**Table 2**). We aimed to collect a broad range of different insights and perspectives about the characteristics and dynamics of collective action among the diverse local actors. All questions were formulated in a non-directive open-ended manner, starting from simple to more complex questions. It was important to let the interviewee talk freely without interference. Translations were necessary in all cases (e.g. from Spanish to English; Bahasa Indonesia, and Gayo to English; Thai, Akha, Lisu, and Lahu to English). We used qualitative content analysis in which the meaning and interpretation of the text was the central aspect of the analysis (Patton 2002).

Based on the work done by Quiñones-Ruiz et al. (2016), and drawing upon Ostrom's IAD framework, we present the four cases through the following common analytical approach: i) contextual setting of product and territory; ii) actors involved in the collective action (i.e. who was included and excluded and who initiated the process; iii) institutional arrangements (rules in use)³ and action arena where collective action efforts are designed and effected; and iv) the outcome of these arrangements for collective action. Additionally, cross-case triangulation and reflective loops (i.e. discussion of results with international and local experts and key informants) were aimed to support the validity of the overall comparative analysis (Yin 2009).

3. Results: Protecting Geographical Indications across three countries

3.1. *Café de Colombia*

Contextual setting of product and territory. Jesuits introduced Arabica coffee to Colombia in 1723, when it was first cultivated in the northeast – in los Santanderes (Palacios 1979). In 1927, growers founded the Federation, which has become perhaps the world's longest-standing coffee producer organization, and which now represents the interests of Colombia's estimated 540,000 coffee growers, 90% of whom are small and medium-sized landholders. Colombia is the third largest producing country after Brazil and Vietnam (ICO 2018), and domestic coffee consumption continues to increase (FNC 2013; Ocampo-López

² Interviews in Colombia took place on June 12–September 12, 2012, November 15–January 12, 2015 and November, 2018 (done by a PhD candidate), in Thailand on September 2–October 9, 2014 and November 20–25, 2017 (done by one master student and senior colleague), in Indonesia on June 29–July 21, 2018; April 4–May 23, 2018 and April 1–30, 2017 (done by three master students).

³ The institutional arrangements are based on the type of actors involved before GI registration (e.g., producers, or producers in partnership with processors) willing to design the Product Specification (or code of practice). The Product Specification contains the rules in use to be followed by GI users (i.e. mainly processors).

and Álvarez-Herrera 2017). Colombia has a solid reputation for quality and “Colombian Milds” are a key global price indicator for quality Arabica. According to the Product Specification found in the DOOR database (EC 2019; FNC 2007, 6), coffee cultivation covers an area of approximately 800,000 hectares throughout the mountainous regions of Colombia. The coffee-growing area is characterized by common climatic and orographical conditions, producing coffee beans with a clean taste, of medium/high acidity and body, and a full and pronounced aroma. Accordingly, the quality of Colombian coffee also depends on common factors such as the wet processing method, selective harvesting involving a significant amount of manual labor, cultivation by long-established and skilled producers, and the use of careful selection and classification processes (FNC 2007).

Actors involved in the collective action. GI protection was a producer-led effort (Quiñones-Ruiz et al. 2015) embedded in the *institucionalidad cafetera*, a well-organized and robust structure consisting of 376 Municipal Committees, 15 State Committees, a Steering Committee, the National Coffee Committee and the National Congress of Coffee Producers. The Congress, which meets annually, is the peak authority of the Federation and is comprised of delegates of the state committees. The Federation has set up partnership agreements with organizations such as Almacafé (quality control), Cenicafe (research center) and cooperatives (coffee purchasing points) (Barjolle et al. 2017; Quiñones-Ruiz et al. 2015), which enables the management of coffee production, quality control and commercialization. The role and responsibility of Colombian public authorities, such as the Superintendence of Industry of Commerce (SIC) was confined to national registration processes only.

Institutional arrangements (rules in use) and action arena. There were several important antecedents to GI registration, including the branding of Colombian coffee using the Juan Valdez symbol in 1959, and its subsequent protection as a trademark in 1960 (Reina et al. 2007). The Federation thus became familiar with trademarks and certification marks in the United States of America and Canada, which have historically constituted important export markets for Colombian coffee. Therefore, GI protection was considered as a strategic opportunity to safeguard Colombian origin and quality (reputation) both domestically and abroad (Quiñones-Ruiz et al. 2015). In the 2004 Coffee Congress, their members jointly decided to pursue GI protection. This required a significant administrative and financial effort by the Federation staff to navigate through the legal framework, engage lawyers, accumulate GI knowledge, elaborate protocols on registration procedures, sample collection and analysis (Quiñones-Ruiz et al. 2015) in order to comply with EU GI law. There are three issues to highlight regarding registration: i) since Café de Colombia covers all coffee-producing states, there were no conflicts between producers (in contrast to the later GI registration of Café de Nariño, see Giovannucci et al. 2009); ii) the GI strategy was primarily conceived and decided by Federation staff who work on behalf of producers; iii) not all value chain actors were initially involved in the GI project, as it excluded buyers, traders, exporters, and roasters, for whom rules governing the use of the PGI were established *post hoc* (Quiñones-Ruiz et al. 2015). During the annual Coffee Congress in 2004, it was jointly decided to start the GI process only under the producers’ lead and later allow access to international players to become voluntary GI users. This was one of the main independent institutional decisions made by Federation staff prior to registration.

The outcome of these arrangements for collective action. Although the owner of the GI right is the government, the Federation is entitled to administer and manage the GI. Any value chain actor (e.g. any coffee producer irrespective of size of holding, trader or roaster) who follows the GI rules (Product Specification) can become a GI user. The Federation has been instrumental in supporting GI registration not only in Colombia and the EU, but also in Switzerland, Ecuador and Peru. Following Café de Colombia PGI registration, six local GIs have been subsequently protected: Café de Nariño; Café de Cauca; Café del Huila; Café de Santander; Café de la Sierra Nevada; and Café del Tolima (FNC n. d.).

3.2. Thailand (Kafae Doi Tung, Kafae Doi Chaang)

Contextual setting of product and territory (for both cases). Thailand has commercially grown coffee for over a century. While Robusta is mainly produced in the South, Arabica is predominantly grown in the cooler environment of the northern mountain regions, where it was introduced by rural development initiatives to replace the prevailing illicit opium poppy cultivation (Angkasith 2001; Noppakoonwong et al. 2015; Windle 2018). Yet, the production volume of coffee continues to be low compared to other Southeast Asian producers like Vietnam and Indonesia (ICO 2018). While nationwide coffee production has fallen due to southern Robusta growers shifting to more lucrative crops such as rubber and oil palm, Arabica production actually increased from 2,883 tons in 2007 to 9,098 tons in 2017 (Office of Agricultural Economics 2018).

It is estimated that only about 1.2% of Thailand's Arabica production is exported, as there is strong domestic demand from a booming coffee house culture and growing tourism sector (Office of Agricultural Economics 2018).

Kafae Doi Tung refers to coffee grown on the Nang Non Mountain Range in Chiang Rai Province in the area of the Doi Tung Development Project (EC 2014a; 2019). Kafae Doi Chaang is branded and marketed as an exclusive "single-estate coffee" by the private company DCCO (EC 2014b, 2019; ASEAN 2019) and is grown within the area of Doi Chaang and Ban Mai Pattana villages in Tambon Wawee, Mae Suai district of Chiang Rai province.

3.2.1 Kafae Doi Tung

Actors involved in the collective action. As a foundation under the Thai Royal Projects, the MFLF founded Doi Tung Development Project (DTDP) as a social enterprise to eradicate opium cultivation and address social and environmental problems amongst ethnic minorities (Doi Tung 2018; Renard 2010). The MFLF filed for GI registration in Thailand on behalf of DTDP and received recognition from the Department of Intellectual Property (DIP) in 2006 (ASEAN 2019). The DIP then actively supported the PGI application in the EU (in 2010) which was recognized in 2015. The geographical area of production is based on, and limited to, a 30-year forest land utilization concession (extended in 2017). DTDP also obtained permission to issue land use certificates to participating farmers, which enabled individuals to prove permanent residency and ultimately to receive Thai citizenship (held by almost 80% of residents in the project area in 2018 compared to less than 40% in 1992).

Institutional arrangements (rules in use) and action arena. Arabica coffee has been encouraged by the Thai Government, the Royal Projects and international donors and became an important cash crop amongst ethnic minorities in the area (Noppakoonwong et al. 2015). Coffee, which is often intercropped with other tree crops like macadamia, has also been promoted as part of environmental programs to "re-tree" the landscape and has taken over many areas previously used for shifting cultivation. Much of the coffee is grown on formal forest reserves where individual land rights are restricted (Windle 2018). In addition to this government support, several respondents attributed the relative success of the coffee initiative in the project area to the establishment of the Navuti company, financially supported by several major Thai and Japanese businesses- which provided resources during different stages of the project (Nigmann 2015). The company initially paid farmers a wage to cultivate coffee prior to receiving a harvest income, and then later provided access to credit along with roasting machinery (all of which promoted a sense of ownership and enhanced coffee quality).

DTDP and their success in establishing brand and quality recognition at the consumer level across Thailand was an ideal partner for government interests that sought to promote GI registration. Furthermore, the entire value chain was already vertically integrated within DTDP, which had the capacity to easily adapt and comply with formal control and monitoring systems as required by national and international GI regulations (Nigmann 2015). This governmental ambition was itself a response to advocacy for an intellectual property strategy by the EU and by the World Intellectual Property Organization (WIPO) (Brindle and Layton 2017). For instance, the EU-ASEAN Project on the Protection of Intellectual Property Rights (ECAP III) was implemented in the Association of Southeast Asian Nations (ASEAN) region and was funded by the EU. It was also hoped that GI registration would add value in terms of enhanced quality control mechanisms and marketing, which would have spillover effects benefiting other sectors such as tourism. Although coffee roasting currently takes place within the geographical denomination, DTDP decided to apply for a PGI instead of a PDO status to also have the chance to export GI protected green beans to the EU. Likewise, the DTDP also designed the Product Specification.

The outcome of these arrangements for collective action. DTDP (a social enterprise linked to MFLF) manages the entire value chain ranging from standard setting, production, processing, marketing, sales and the management of coffee shops. The DTDP requires all GI users to register with the MFLF, and is responsible for control and monitoring according to an internal control system (ASEAN 2019). Farmers have a fairly limited understanding of GIs as a legal instrument, but the registration process has provided national and international recognition of their coffee that adds to a sense of pride and increased focus on quality (Nigmann 2015).

The DTDP processes both GI and non-GI coffee from outside the delineated territory under very similar quality control systems. Around 10 to 12 tonnes of GI coffee is sold annually in DTDP's eleven coffee shops located throughout Thailand, while another 30 to 40 tonnes were sold as packaged and branded coffee

through various retail channels, where “Kafae Doi Tung” fetches a considerable price premium (in 2014). While overall production may seem low, DTDP manages to capture a greater share of the total value-added along the entire chain. While producers generally receive higher prices for their cherries, there is no additional price differentiation between the production of GI and non-GI coffee due to a policy of equal treatment of all producers.

Some interviewees stated that the EU registration somehow conveyed quality recognition that was on par with European standards. EU registration thus acts essentially as a quality signal within the domestic Thai consumer market rather than actually protecting the coffee within the EU, where Kafae Doi Tung remains relatively unknown.

3.2.2. Kafae Doi Chaang

Actors involved in the collective action. The Doi Chaang Coffee planters' group, which established the DCCO, filed for GI registration in Thailand and then received support from the DIP to prepare PGI registration in the EU as early as 2010. Coffee cherries are collected by small-scale independent coffee growers, who are registered members of DCCO, although some plots are said to be directly managed by DCCO. Quality-differentiated prices paid to members provide incentives for farmers to comply with standards.

Institutional arrangements (rules in use) and action arena. Both “Doi Chaang” and “Doi Chaang Coffee” were initially registered as Thai trademarks in 2003 and 2007 respectively, which under Thai Law, does not preclude them from subsequent GI registration. As with Doi Tung, Kafae Doi Chaang has brand recognition throughout Thailand. DCCO has a proven capacity to comply to international voluntary standards, such as USDA Organic and Fairtrade, and GI registration was presented in a similar way – as an external form of quality recognition. The initial driver for GI registration for Kafae Doi Chaang was the government strategy for intellectual property rights protection aiming to promote asset creation and commercialization to foster competitiveness. The DCCO designed the Product Specification needed for GI registration. According to DCCO, GI registration is primarily a strategy to add value (symbolic quality) in European markets, with spillover effects on quality perceptions within the domestic market.

The outcome of these arrangements for collective action. The protection is mainly managed by a private company (DCCO). While there are many farmers, processors and roasters located within the Doi Chaang region, the GI is only used by DCCO. Other processors generally market their coffee with a slightly different spelling, such as “Doi Chang”. Given the Thai context where words written in Thai script are commonly transcribed into Roman script in multiple ways (Kanchanawan 2006), this transcription is a concern for DCCO.

3.3. Kopi Arabika Gayo

Contextual setting of product and territory. The cultivation of coffee was introduced to Indonesia by the Dutch East Indies company (the Vereenigde Oostindische Compagnie, or VOC) at the end of the 17th century, and spread across Java and the outer islands throughout the 18th and 19th centuries. However, it was only in the 1920s that coffee cultivation commenced in the Gayo highlands of Aceh, at Sumatra's northern tip (Huitema 1935), with a major period of expansion occurring in the late 1960s (McStocker 1987). Despite the region being embroiled in an armed separatist conflict with the Indonesian state, a high-quality Arabica coffee was the major crop produced in the Gayo highlands by the 1990s, which was being exported to international specialty markets as certified Organic and Fairtrade (Mawardi 2002). Marsh (2006) estimated that production in Gayo had reached approximately 20 thousand tonnes by 2005.

The name “Gayo” derives from the Gayo ethnic group who are the dominant group living in the districts of Bener Meriah, Central Aceh and Gayo Lues. The Product Specification (EC 2017; MKPG 2016) states that “Kopi Arabika Gayo” is produced in these districts at an elevation of between 900 m and 1700 m above sea level. The Kopi Arabika Gayo PGI refers to Arabica coffee processed by the typical “Sumatra semi-washed method” also known as “wet-hulling” (known as giling basah in Bahasa Indonesia), and which complies with Indonesian export standards. The wet-hulling method, combined with a particular climatic zone and soils derived from volcanic parent material, produce a uniform tasting coffee, heavy body and bright acidity. The Gayo region is relatively remote, taking 9 to 10 hours by road to reach the major port of Medan and is surrounded by the Gunung Leuser National Park, which is part of the UNESCO-listed “Tropical Rainforest Heritage of Sumatra”.

Actors involved in the collective action. The 2004 tsunami devastated the coastal regions of Aceh and development funding for the entire province was significantly increased, including the Gayo highlands

where substantial investments were allocated to support the rehabilitation of the coffee sector (particularly from the United States Agency for International Development (USAID) and the United Nations Development Programme (UNDP)). These donor-funded programs included extensive agricultural training activities while also focusing on off-farm quality control and provided a strong impetus for the subsequent GI registration within Indonesia. UNDP provided support for the establishment of the Aceh Coffee Forum in 2005 under the Aceh Partnership for Economic Development (APED) program, which provided an organization basis for the MKPG (Schreiber 2018). The Forum encouraged all actors and organizations involved along the Gayo coffee value chain to address coffee production and marketing issues, and it identified geographical integrity and regional branding as a key issue.

The registration of Indonesia's first GI for Bali Kintamani coffee in 2008 then encouraged the Aceh Coffee Forum to follow a similar strategy. In 2009, the MPKG was established to apply for, and manage, legal GI protection, and was supported by international donors and the Indonesian Ministry of Agriculture. The GI application was submitted to the Indonesian Directorate General of Intellectual Property in December 2009 and approved in April 2010. The MPKG formally became a Foundation (Yayasan) in 2015 prior to EU registration approval in 2017.

Institutional arrangements (rules in use) and action arena. A key driver of GI registration has been the need to protect against foreign appropriation of well-known origins such as "Gayo" and "Toraja" (UNPO 2008). The local coffee community – and their allies in government – saw an urgent need for protection following an earlier 1999 trademark registration in the Netherlands by a foreign trader of "Gayo Mountain Coffee", which was accompanied by their attempt to enforce exclusive marketing rights of the name "Gayo" (Jakarta Post 2008). Thus, the organizational momentum created by the Aceh Coffee Forum encouraged the MPKG in an attempt to create Gayo-wide solidarity and cohesion between farmers through place-based legal protection. The MPKG perceived the GI as an opportunity to increase value-added by preventing foreign control (Schreiber 2018). A key part of this narrative was that traders in Medan would blend Gayo coffee with other coffee origins, resulting in quality deterioration and a possible loss of reputation (Schreiber 2018). The MKPG, regarded as a government-supported GI consortium consisting of both producers and processors, designed the Product Specification needed for GI registration. The path towards GI registration was influenced by governmental interventions and international donor support in post-tsunami Aceh, and was motivated by a collective need to prevent foreign appropriation of "Gayo".

The outcome of the arrangements for collective action. According to the Product Specification, membership of the MPKG consists of: 10,869 farmers managing 12,996 hectares of coffee; four cooperatives (KBQB, KSU Gayo Mandiri, Ketiara and Arisarina); one private exporter (an international commodity trader); and six local coffee roasters. Given that the 2013 Indonesian Agricultural census (BPS 2019) identified more than 55 thousand households growing coffee in the Gayo Districts, and FLOCERT lists 22 Fairtrade Producer Cooperatives in Gayo (FLOCERT 2019), there is a relatively low level of participation in the GI itself. Awareness of the GI amongst GI listed growers remains extremely limited, and while the GI Cooperative linked to the MPKG has managed to capture some of the Gayo trade, it has not had a significant impact on overall value chain dynamics (Damayanti 2018). In practice, the MPKG has largely followed the institutional operating model of the much longer-established Fairtrade cooperatives in Gayo in attempting to use GI registration as a means to capture value and trade flows, but it has always been very closely associated with local government elites. The MPKG Office is co-located with the Government District offices of Central Aceh and various government representatives and former government employees are part of the formal organizational structure (Yayasan MPKG 2019).

3.4. Comparative analysis of case studies

Table 3 summarizes how actors interact (e.g. inclusion or exclusion of actors, leading actors) and the scope of collective action among actors for each of the four case studies. All cases illustrate diverse contextual situations involving a variety of actors as leading drivers. In the Colombian case, the Federation staff, on behalf of producers, initiated the GI process without the direct support of the government or other value chain actors such as international buyers. While, in the three Asian cases, GI registration was encouraged by both public authorities and donor agencies. Yet, the three Asian cases show differences in the organizational set up. Whereas Kafe Doi Chaang was led by a private for-profit company, the Kafe Doi Tung case is governed by a social enterprise approach channeling profits back into the project for the common good. The Gayo MPKG was initiated by public authorities and international donors, and then transformed into a foundation, but with a closely associated cooperative that farmers perceived to be in competition with other local buyers.

Table 3: Cross-case comparison.

	Café de Colombia: A producer-driven GI	Kafee Doi Tung: A foundation-driven GI	Kafee Doi Chaang: A company-driven GI	Kopi Arabika Gayo: A government-driven GI
Key actors involved	The Federation staff, on behalf of the producers, designed the Product Specification and the rules governing the GI use. Potential international buyers would become GI users upon compliance to GI rules, when importing either green or roasted coffee.	DTDP, under the lead of MFLF, incorporates the entire value chain. Minority groups produce and supply coffee to the roasting facility of DTDP which is then processed, marketed and distributed to retail stores. The GI is mainly used at the national level.	A private company manages the entire value chain through to marketing of “single-estate” coffee and managing or franchising coffee shops in Thailand and abroad. Associated and individual farmers produce and supply coffee to the company.	Influenced by government interventions, the MPKG attempts to coordinate local value chain actors. The MPKG defined the rules and the Product Specification to be followed by international buyers and other GI users.
GI management	Federación Nacional de Cafeteros de Colombia (FNC)	Mae Fah Luang Foundation under Royal Patronage (MFLF)	The Doi Chaang Coffee planters’ group	Gayo Coffee Protection Society (MPKG)
Scope of collective action of chains actors and related stakeholders	Mainly initiated by the Federation, supported by GI experts and lawyers. International buyers were then informed to become GI users.	Public and private interactions (e.g. the Ministry of Commerce, MFLF) to improve livelihoods of disadvantaged ethnic minorities in the project area.	Mainly company-driven interactions (e.g. strategic product differentiation) with public support aiming at facilitating intellectual property protection.	Initiated by international donors and regional government organizations in a public-private organizational form that largely acts on behalf of farmers.

Source: Authors.

4. Discussion

Recalling Hardin’s classic pasture example, we can consider the likely consequences when a resource (the intangible reputation in the case of GIs) is accessible to all without appropriate institutional arrangements (Boyd et al. 2015). The collective action approach inspired by the IAD framework supported an understanding of how an intangible collective good is institutionalized. An intangible known reputation of a crop (coffee) is difficult to institutionalize as a collective good when all actors using the resource are not necessarily located in the same region.

When looking at the contextual setting of product and territory, actors involved in the collective action, the institutional arrangements (rules in use) and action arena and the outcome of these arrangements for collective action, we can better understand the local, or national, collective action milieus for protected GIs in diverse social and institutional contexts. The Thai cases present how quality coffee production is acknowledged by both local producers and consumers. In the other cases (Colombia, Indonesia), the collective reputation is attributed to a good that is mainly exported. The fact that the collective reputation is not only institutionalized where the coffee is produced but also in other countries where it is consumed presents a challenge in reputation management. Participating actors (local and international) perform important roles in deciding who can take part in the GI system, and in the design of user rules. The fact that some important actors are located outside the production region makes it difficult to trace and effectively govern the collective action milieu in its entirety. The challenge of studying an intellectual property right for using the name of a reputed good is the fact that the resource stretches across globalized value chains. As such, the issue of resource governance here extends beyond the geographical boundaries of production through to distant sites of consumption (thus affecting the IAD issues of scale and manageable units of analysis). This is particularly evident in the cases of Colombia and Indonesia, where colonial histories embedded long-standing South to North trade relations and a lesser focus on domestic markets.

The defense of a collective reputational resource such as a PGI spans across large geographic areas through global value chains and often across very different cultural spaces with end users who are not involved in establishing the GI rules. As a result, they are generally not committed to protecting it. Ostrom's work suggests that collective action works well when all resource users share a cultural and geographic space at a manageable scale, and this is not met in the Indonesian and Colombian cases.

In all four cases, the GI applicant is an organization consisting of: coffee producers under the Federation in Colombia; the MFLF Foundation and a social enterprise for Kafe Doi Tung; a private company for Kafe Doi Chaang; and the MPKG Foundation with the support of public agencies in the Gayo case. Before registration, producers need to delineate the Product Specification. Once the application is approved, GI users need to comply with the rules stated in the product specification (i.e. methods of production). In the Colombian case, the applicant group involved producers only, whereas it was a company in the Doi Chaang case. Since Colombian producers mostly produce and export green coffee and the GI did not include processors, producers needed to convince processors to become GI users. In other words, processors (i.e. roasters, brand owners), mainly located outside the production area, voluntarily become users upon compliance with the rules governing the GI use. The Doi Chaang Coffee planters' group is perhaps the most complex case, as ultimately a private company, with a preexisting established trademark, was responsible for filing the registration. The company manages own coffee plots but also sources coffee from individual producers. While there are multiple producers and processors within the geographical area producing similar quality coffee according to the Product Specification, they are excluded from using the GI mark, which is perceived by the community to be exclusively "owned" by the company (Nigmann 2015). The GI documents do not actually clarify whether or not the GI is open to other processors, although it does insist on the term "single-estate". The Indonesian case involves a GI consortium of both producers and processors, although its functionality is poor due to an absence of effective control and surveillance mechanisms.

In the case of Café de Colombia, any chain actor complying to the rules governing the GI can become a user. The situation is similar in the Indonesian case, any chain actor (including cooperatives and traders) can also become a user upon compliance to the Product Specification. The situation is not clearly defined in the privately-managed Doi Chaang GI.

The four cases illustrate (in different ways) how the process of institutionalizing the GI required powerful, and reasonably well-resourced actors to assume a lead role. This resulted in relatively little participation and buy-in from actual coffee producers themselves. Therefore, this does not truly satisfy Ostrom's requirements for effective collective action despite the fact that it meets the EU legal requirement for collective action, which is mainly observed as an administrative formality.

For effective GI management, commitment to protecting the resource from all value chain users is necessary wherever they are located geographically. The key challenge therefore becomes how to communicate to coffee roasters and retailers the importance of protecting the resource. Neilson et al. (2018, 46) suggest the need to assert moral pressure: "producing country interests need to not only be aligned with quality conventions along the value chain but also with the need to politically engage with the moral legitimacy of roasters and café owners to use place names and cultural property without acknowledging producer claims of ownership". This lack of commitment from buyers is especially important when we consider power relationships within global value chains and the key role played by lead firms (roasters). Likewise, Reinecke et al. (2017, 48) suggest a need "for the organizations to draw on a range of different orders of worth and actively negotiate and re-negotiate the relations among them to construct moral legitimacy".

Although global coffee chains still follow neo-colonial patterns (Daviron and Ponte 2005; Neilson and Wang 2019), the Doi Chaang GI, for instance, shows that even if value retention and appropriation remains mostly within the country, the distribution of benefits among actors remains unbalanced. The main outcome of the collective GI efforts shows that leading actors exert control over information exchange and production activities shaping the functional division of labor along the chain to create entry barriers (Muradian and Pelupessy 2005). That is, to determine "who can do what to whom, on whose authority" (McGinnis 2011 178). Thus, all four cases show shortcomings in achieving the common good.

GI protection might follow the same challenges as any other voluntary standard complying to (quality) conventions set elsewhere (see Galtier et al. 2013; Grabs 2018). However, collaborative actions between at least some actors to defend a collective reputational resource gives coffee producers an opportunity for enhanced empowerment and participation through education and information sharing. Indeed, the local protection of Café de Nariño in Colombia followed a debated process when pursuing the geographical delimitation as it concerned two coffee-growing states. The outcome of this process was a more local, inclusive and conscious GI process (see Giovannucci et al. 2009).

The continued neo-colonial trade patterns that tend to characterize the coffee sector are often reflected in long – and fragmented – value chains. Therefore, on top of the GI protection, value addition (through symbolic and in-person services) and recognition of the benefits of resource protection by producers themselves is critical. Likewise, GI recognition is likely to be most effective when it operates within domestic markets where a shared commitment to protecting the resource exists and where quality-place associations and small producers are acknowledged. It is only relatively recently that consumption of high-quality coffee in producing countries has commenced, which makes quality signaling at the national level more relevant (FNC 2013; Pongsiri 2013; Purnomo et al. 2019). Paradoxically, we also acknowledge the obstacles for many small-scale producers (e.g. absence of property right regimes for ethnic minorities) to access intellectual property rights regimes.

Conclusion

All four cases illustrate a rather paternalistic approach to GIs showing little real collective action among all value chain actors before and after registration. The fact that the four coffee GIs are legally protected under EU law does not necessarily lead to robust collective action. A producer-led effort is indeed worthwhile, but it is not enough if value chain actors such as international roasters and brand owners, who act as powerful gatekeepers, are not included in the GI protection process and are not actively committed to protecting it as a valuable resource. Collective action established by coffee producers alone is insufficient. A company-driven GI, owning all value chain steps, does not necessarily empower producers and might even prevent some local actors from becoming GI users. Neither does a government or project-oriented GI protection process, introduced on behalf of local producers, necessarily result in empowerment and self-organization. However, it is also important to bear in mind that: 1) at least in the Colombian and Indonesian cases, it is clear that any value chain actor who complies with the GI rules can become a GI user; and 2) GI protection originated in Europe and the adoption by non-EU countries is not an easy task, although it does provide an option for them. The defended collective reputational resource needs to be first understood, recognized and valorized by both local producers and processors.

Contrary to the Colombian and Indonesian cases, in the two Thai cases, material quality attributes (i.e. good tasting coffee) are promoted alongside both symbolic attributes (well-known brand reputation, social and environmental attributes) and an attempt to engage with in-person service qualities (coffee brewed and consumed at coffee shops). This is crucial in order for producers at origin, after legal protection, to generate and appropriate the added value and truly protect the intangible resource. Value appropriation and retention by local chain actors not only takes place by harvesting and processing the coffee but also when producers are able to valorize the territorial resources and value of their coffee (for their own consumption similar to winemakers in southern Europe) and when they are also able to market it, after some transformation under a reputable brand name in domestic value chains. Despite the contradictions faced in all cases and the fact that coffee is an introduced commodity crop, the GI processes might be regarded as a starting point to create a collective project (supported by national legal frameworks) even when only some actors are involved. In addition to GI protection, however, there is an urgent need for producers to capture the value associated with symbolic and in-person service qualities to induce meaningful change in the producing community, and local consumption can be an important trigger. This paper has demonstrated how the design of the guiding rules of the game for collective protection processes, which subsequently affect their effectiveness and distribution of benefits, is shaped by the positionality and particular interests of the actors involved. Actors along value chains will have different motivations for participation, a different capacity to exert power and influence, diverse attitudes towards moral legitimacy, and varying relationships with external actors like development agents, research organizations and state agencies. The defense of a collective reputational resource such as a PGI might not be only meant for export markets and benefits are not only to be accrued by local elites.

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Competing Interests

The authors have no competing interests to declare.

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