A case for activating producers' rights in discussions on conservation of biodiversity through Geographical Indications

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1. Introduction

Have you ever wondered about the connection between tequila and bats? Research conducted on the Tequila Geographical Indication (GI) argues that the way the GI is described has a causal connection with the erosion of bio(cultural)diversity in the Tequila producing region.[1] This is explained by the failure of the GI to include the traditional knowledge of the producers on traditional pollination methods. Such methods include pollination by bats, which is harmed by industrial farming of tequila which—in turn—results in less food for the bat population.[2] This also affects popular spirits Tequila and Mezcal.[3] These spirit names are examples of GIs, an IP right that protects the link between a product and its origin. Only when a product is made as per the standards defined within the Tequila GI can the name Tequila

Abstract

- Geographical Indications (GIs) are collective rights granted to a group of producers in a limited geographical area. One of the rationales of GI protection is biodiversity conservation which is rapidly being advanced. However, if the GI fails to value the terroir associated with it, it can risk erosion of bio(cultural)diversity. In this paper, taking lessons from such experiences, we argue for activating producers' rights in discussions on biodiversity conservation through GIs and for the systematic inclusion of environmental law, which is considered relevant by the producers, in the GI specification. The rationale of sustainability and sustainable development and the integration of the capabilities approach to IP governance is part of our theoretical underpinnings for such an argument.
- Given the relationship between these concepts, we first explain biodiversity conservation and then situate the role of GIs in this context. Finally, we also differentiate between third-party certifications and eco-labels and GIs. The role of the former can be useful but limited as GIs offer a better opportunity to include producers' own views. We support our arguments throughout the paper using various examples from secondary empirical research.
- In practice, we argue for making GI laws, including designing of GI specifications, in a manner that producers' participation is included by design. Considerations of bio(cultural)diversity should be, by design, a part of GIs to increase their efficiency in fulfilling this rationale of protection. This calls for more interdisciplinary and intradisciplinary engagement from GI scholars as well.

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1 Pablo Pérez-Akaki and others, 'Designation of Origin Distillates in Mexico: Value Chains and Territorial Development' (2021) 13 *Sustainability* 5496; Sarah Bowen and Ana Valenzuela Zapata, 'Geographical Indications, Terroir, and Socioeconomic and Ecological Sustainability: The Case of Tequila' (2009) 25 *Journal of Rural Studies* 108.

2 Neda Ulaby, 'Bats And Tequila: A Once Boo-Tiful Relationship Cursed By Growing Demands' (*NPR*, 29 October 2017). Available at https://www.npr.org/sections/thesalt/2017/10/29/560292442/bats-and-tequila-a-once-boo-tiful-relationship-cursed-by-growing-demands (accessed 31 August 2023).

3 Di Minardi, 'Mezcal Is More Popular than Ever—Why That's Bad News for Bats' [2020] *National Geographic*. Available at https://www.nationalgeographic.com/animals/article/mezcal-more-popular-why-thats-bad-news-for-bats (accessed 20 December 2023).

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be used for the product. GI scholars have been warning about the negative externalities of GI protection for some time now. In the case of the Tequila GI, the description of the product by failing to include protections for its biocultural diversity has promoted monocultures of agave production and gentrification of the cultural heritage of the region resulting in the deterioration of its 'terroir'.[4]

In general, it has been argued that GIs can serve 'as incentives for producers to adopt long-term strategies for safeguarding and enhancing the well-being of the land'[5] and arguably, in the presence of key success factors, can also lead to sustainable development ('SD').[6] However, producers are often not aware that their product can be an example of GIs and if so, how they can organize to define, register and monitor GI implementation. The history of IP internationalization and import may explain the gap in producer knowledge. For many developing country producers, even though the well-being of the land has ample significance (and this needs to be stressed), 'Western conceptions of privately held rights over intellectual assets have no local cultural or legal roots'.[7] Additionally, Sunder explains how third-world peoples are disproportionately disadvantaged by IP law, which historically has not recognized their cultural contributions.[8]

A counter-hegemonic move suggested by scholars is to 'enhance the capacities of stakeholders in the GI supply chain to improve their collective project in order to improve the sustainability of their process'.[9] This has also been linked to Sen's capabilities approach to development as it can be used for shaping GI governance for SD.[10] In the GI context, this approach would ensure that producers for whom the SD rationale is advocated are no longer seen as the subjects of development policies but as actors and participants who play the most important role in constructing their own future. An SD rationale necessitates that we look beyond the four corners of GI law to find ways to ensure a participatory approach. Chon explains that IP rights, in general, are no longer being looked at only as public goods but are expected to fulfil human development goals.[11] The entry of non-traditional actors (eg, development actors, third-party private actors combining corporate social responsibility objectives with GI marketing, etc.) in GI governance has also generated discussion on the role of the state and of non-state actors in the governance of GIs.[12]

In this article, we argue that while GIs can potentially have many positive impacts, particularly biodiversity conservation, and can potentially aid the achievement of Sustainable Development Goals (SDGs), these results are not coherently embedded in the legal protection envisaged under GI protection laws, which tend to be rather flexible on environmental commitments. In fact, GI protection also carries risks that can further degrade the ecological environment. We argue that, from a legal perspective, GI laws need to evolve if the objective of GI protection for a product or a region is biodiversity conservation. To fully realize this objective, GI law can benefit from incorporating principles from environmental regulation. To achieve this, policymakers must be ready to go beyond the minimum standards outlined in the TRIPS (The Agreement on Trade-Related aspects of Intellectual Property Rights 1994) Agreement. By doing so, GIs can play a critical role in protecting biodiversity and fulfilling their multifaceted functions, here, conservation of biodiversity.[13]

Finally, we differentiate GIs from third-party certification standards or eco-labels. The identified legal gaps can be filled through the implementation of GI standards, through international environmental law principles and through activating producer's rights over the process of production. The results of this exercise are two-fold: evaluation of GIs as a tool to protect biodiversity and environmentally sustainable production practices through a legal analysis and recommendations for what the GI law will have to guarantee to achieve this. This will ensure that biodiversity conservation is not a side effect, an afterthought or only a marketing strategy

4 Armando Sánchez-Soto, 'Information Needs and Information Behavior of Blue Agave Farmers in Tequila, Jalisco: A Case Study' (2016) 30 *Investigación Bibliotecológica: Archivonomía, Bibliotecología e Información* 137; Darcy Tetreault and others, 'Distilling Agro-extractivism: Agave and Tequila Production in Mexico' (2021) 21 *Journal of Agrarian Change* 219.

5 Irene Calboli, 'Geographical Indications between Trade, Development, Culture, and Marketing: Framing a Fair(Er) System of Protection in the Global Economy?' in Irene Calboli and Wee Loon Ng-Loy (eds), *Geographical Indications at the Crossroads of Trade, Development and Culture* (Cambridge University Press 2017) 19.

6 Emilie Vandecandelaere and others, 'Strengthening Sustainable Food Systems through Geographical Indications' (2018).

7 Carolyn Deere, *The Implementation Game* (Oxford University Press New York 2009) 34.

8 Madhavi Sunder, 'Intellectual Property and Development as Freedom' in Neil Weinstock Netanel (ed), *The Development Agenda: Global Intellectual Property and Developing Countries* (Oxford University Press New York 2008) 455.

9 Vandecandelaere and others (n 6) xviii.

10 ibid 32.

11 Margaret Chon, 'Recasting Intellectual Property in Light of The U.N. Sustainable Development Goals: Toward Global Knowledge Governance' (2019) 34 *American University International Law Review* 763.

12 Irene Calboli and Delphine Marie-Vivien, 'One Size Does Not Fit All: The Roles of the State and the Private Sector in the Governance Framework of Geographical Indications' in Margaret Chon and others (eds), *The Cambridge Handbook of Public-Private Partnerships, Intellectual Property Governance, and Sustainable Development* (Cambridge University Press 2018) 308.

13 This argument is part of the arguments being explored in the ongoing thesis of Author 1.

but that it is an intended effect of GI protection. If the product does not actively lead to biodiversity conservation, it should at least not cause environmental harm and injustice.

2. Theoretical underpinnings

Before we begin drawing out the connection between biodiversity conservation and GIs, we will explain in this section the theoretical underpinnings for this article. Here, we will briefly explain the SD rationale for GIs, explain our concerns with the term SD and explain how the capabilities approach can help in redeeming the concept. While it would be a digression to discuss the various critiques of the concept in detail here, some of them are mentioned in the next paragraph, along with links to sources that explain these critiques well.[14] This is also relevant for a holistic understanding of biodiversity that we will explain in the next section.

There is no single definition of the term SD. It has a rich history that places it within multiple disciplinary fields (broadly, natural sciences, social sciences and development studies, among others), and its meaning remains contextual and necessarily political.[15] The need for the term SD as a principle in the international economic and political order emerged due to the realization that unchecked economic development has had destructive consequences for the environment, including human and non-human life.[16] This also included concerns for intergenerational equity, which gave it a strong backbone.[17] The definition of SD is widely credited to the 'Our Common Future' or the Brundtland Commission report, wherein it was defined as development that 'meets the needs of the present without compromising the ability of future generations to meet their own needs'.[18] The concept initially only required the balancing of the economic and the environmental pillar, and it was only in 1995 in the World Summit for Social Development that the social pillar was understood to be part of the equation.[19] Yet, this importance given to SD with its three pillars on an international stage was a watershed moment for many but critics warned about the need to be conscious of inherent contradictions of the term. These include inherent contradictions between economic growth and ecological conservation, which were not resolved by the term. Further, critics warned that 'the inattention to power relations among the local-to-global actors and institutions supporting unsustainable development' would thwart its implementation.[20] Additionally, the concept is anthropocentric and vulnerable to co-optation by allowing for the possibility to routinely trade-off socio-ecological issues for economic growth.[21] The Sustainable Development Goals inherit these difficulties and allow for cherry-picking of the goals without consideration for how it affects other goals.[22]

Presently, some argue that the principle of SD cannot be redeemed and should be abandoned for better principles such as ecological justice, degrowth or other local (territorial, community and network) and biocentric alternatives in the pluriverse of post-development.[23] Many are looking for alternatives to SD,[24] and one scholar, van Norren, makes a case for redefining progress as 'development as a service' based on reciprocity, using Sen's development as freedom conception. This would

14 See particularly, Sumudu A Atapattu and others(eds), *The Cambridge Handbook of Environmental Justice and Sustainable Development* (Cambridge University Press Cambridge and New York 2020).

15 Jacobus A Du Pisani, 'Sustainable Development – Historical Roots of the Concept' (2006) 3 *Environmental Sciences* 83; Philipp Dann and Michael Riegner, 'Actors and Instruments' in Koen De Feyter and others (eds), *Encyclopedia of Law and Development* (Edward Elgar Cheltenham and Northhampton 2021) 8; Patric Brandful Cobbinah and others, 'Reflections on Six Decades of the Concept of Development: Evaluation and Future Research' (2011) 13 *Journal of Sustainable Development in Africa* 134.

16 Ecological economists and eco-feminists were problematizing development in the 1960s and 1970s. See more Shivani Kaul and others, 'Alternatives to Sustainable Development: What Can We Learn from the Pluriverse in Practice?' (2022) 17 *Sustainability Science* 1149. https://link.springer.com/10.1007/s11625-022-01210-2 (accessed 25 July 2022).

17 This was considered revolutionary by Amartya Sen as the report combined intergenerational justice with a concern for the poor (capability deprived) in each generation. Amartya Sen, 'The Ends and Means of Sustainability' (2013) 14 *Journal of Human Development and Capabilities* 6, 8.

18 Gro Harlem Brundtland, 'Report of the World Commission on Environment and Development: Our Common Future' (1987). Available at https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf (accessed 13 July 2021).

19 Sumudu A Atapattu and others, 'Intersections of Environmental Justice and Sustainable Development: Framing the Issues' in Sumudu A Atapattu and others (eds), *The Cambridge Handbook of Environmental Justice and Sustainable Development* (Cambridge University Press Cambridge and New York 2021) 3.

20 Chris Sneddon and others, 'Sustainable Development in a Post-Brundtland World' (2006) 57 *Ecological Economics* 253, 254.

21 Bill Hopwood and others, 'Sustainable Development: Mapping Different Approaches' (2005) 13 *Sustainable Development* 38, 41.

22 Jan Orbie, 'Waarom de Duurzame Ontwikkelingsdoelen de Wereld Niet Zullen Redden' (*MO*, 12 February 2020). Available at https://www.mo.be/opinie/waarom-de-duurzame-ontwikkelingsdoelen-de-wereld-niet-zullen-redden?utm_content=bufferb6fa3&utm_medium=soci%E2%80%A6 (accessed 17 February 2020).

23 Ashish Kothari and others (eds), *Pluriverse: A Post-Development Dictionary* (Tulika Books and Authorsupfront New Delhi 2019); Vincent Liegey and Anita Nelson, *Exploring Degrowth: A Critical Guide* (Pluto Press London 2020); Kaul and others (n 16).

24 Kothari and others (n 23); Ashish Kothari and others, 'Buen Vivir, Degrowth and Ecological Swaraj: Alternatives to Sustainable Development and the Green Economy' (2014) 57 *Development* 362; Federico Demaria and Ashish Kothari, 'The Post-Development Dictionary Agenda: Paths to the Pluriverse' (2017) 38 *Third World Quarterly* 2588; Atapattu, Gonzalez and Seck (n 14); Dorine E van Norren, 'The Sustainable Development Goals Viewed through Gross National Happiness, Ubuntu, and Buen Vivir' (2020) 20 *International Environmental Agreements: Politics, Law and Economics* 431.

eventually substitute development for interrelationships between human, nature and well-being, borrowing from alternatives such as the Buddhist Gross National Happiness (Bhutan), Buen Vivir (eg Ecuador) and Ubuntu (specifically, South Africa).[25] Others argue that integrating different imaginaries of SD can help redeem it. These imaginaries recognize the plurality of approaches towards SD and its inherently political nature.[26] Sneddon et al. argue that Sen's development as freedom approach is a good starting point for salvaging SD.[27] The integration of this approach is also advocated in IP literature and in GI literature for governing GIs and ensuring more stakeholder participation.[28] Considering the similarity of the language in the framing of the under-theorized social pillar and the language of human rights (Atapattu et al.), rights-based development can also be a good lever to pull on in the quest to redeem SD (Aylwin and Coombe).[29] This is elaborated further in section 7 below.

In her work connecting IP and the capabilities approach, Sunder asks whether IP can help the poor.[30] IP has been a western conception that can be antithetical to the way communities in the third-world operate.[31] However, Sunder argues that, 'Intellectual property rights in poor people's knowledge are increasingly considered a key to third-world development—not just in the defensive sense of resisting TRIPS but also in the offensive approach of writing rights into TRIPS'.[32] She further continues explaining the limited usefulness of GIs in the Indian setting because of the way it has been implemented in India, which adopts a narrow understanding of traditional knowledge.[33] However, if the GI governance process values producer knowledge, GIs can have an empowering effect.[34] Adopting Nussbaum's conception of 'central human capabilities', Sunder argues that adopting a cultural approach to IP scholarship can help reorient it. This would mean focusing on cultural freedom characterized by a focus on participation, livelihood and shared meaning.[35] In this sense, she sees GIs as a tool 'for promoting human development and not GDP or efficiency alone' and not as a right.[36] This has implications for both the understanding of biodiversity and for GI governance. What this means concretely for biodiversity is explained in the paragraphs below and the implications for GI governance are discussed in later sections of this article.

3. Defining biodiversity conservation and GIs

The capabilities approach necessitates a different imaginary for the term 'biodiversity'. Biodiversity conservation has become a powerful rationale for GIs in academic and policy circles. Rosen who used the term in the 1980s differentiated 'biodiversity' as having more emotion, spirit and ethical concern than 'biological diversity'.[37] While other concepts such as biological resilience, stability and wilderness are important for conservation, 'biodiversity' acquired the normative heft behind which nature conservationists could rally.[38] However, some scientists also question the usefulness of the term and caution that its vagueness can even impair conservation efforts.[39]

The Convention on Biological Diversity (CBD) uses the following definition: 'variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes

25 van Norren (n 24).

26 Sneddon and others(n 20).

27 ibid 262. See also, Giada Pistilli, 'L'approche Des Capabilités Appliquée Au Développement Durable' (2018) 8.

28 Sunder (n 8); Vandecandelaere and others (n 6).

29 Atapattu and others(n 19); Nicole Aylwin and Rosemary J Coombe, 'Marks Indicating Conditions of Origin in Rights-Based Sustainable Development' (2014) 47 *University of California, Davis* 753.

30 Sunder (n 8).

31 The 'third-world' is an old categorization of countries that dates back to the Cold war. While the usage continues to be problematic because of its western lens on the rest of the world and because it puts the locus of knowledge in the west, this term also helps build solidarities amongst scholars from the so-called third world and has been reclaimed by scholarly fields such as third-world approaches to international law scholars or third-world feminist approaches. In this sense, the third world is not necessarily geographically limited. Usha Natarajan argues that there is global north in the south and global south in the north. The usage of the term has more to do with power imbalances and structural and systemic inequalities. Usha Natarajan, 'Environmental Justice in the Global South' in Sumudu A Atapattu and others (eds), *The Cambridge Handbook of Environmental Justice and Sustainable Development* (1st edn Cambridge University Press Cambridge and New York 2021) 39. https://www.cambridge.org/core/product/identifier/9781108555791%23CN-bp-3/type/book_part (accessed 25 July 2022).

32 Sunder (n 8) 462. Quoting Vandana Shiva, she writes, 'When law defines the contributions of the poor as *nature* rather than *culture,* the "creativity of both nature and other cultures is negated"' (p.459).

33 ibid 465–472. For other criticisms along these lines, see Jupi Gogoi, 'Promoting Human Rights Through the Law of Geographical Indications: Mirage or A Reality' in Manoj Kumar Sinha and Jupi Gogoi (eds), *IPR and Human Rights with Special Emphasis on India* (Indian Law Institute New Delhi 2018) 255.

34 Sunder (n 8) 471.

35 See more in Madhavi Sunder, *From Goods to a Good Life: Intellectual Property and Global Justice* (Yale University Press New Haven 2012).

36 ibid 16.

37 Georg Toepfer, 'On the Impossibility and Dispensability of Defining "Biodiversity"' in Casetta and others (eds), *From Assessing to Conserving Biodiversity: Conceptual and Practical Challenges*, vol. 24 (Springer Open 2019) 344.

38 Toepfer (n 37).

39 Clare Fieseler, 'The Case against the Concept of Biodiversity' *Vox* (5 August 2021). Available at https://www.vox.com/22584103/biodiversity-species-conservation-debate (accessed 26 July 2022).

diversity within species, between species and of ecosystems'.[40] However, as Frison has argued, biodiversity cannot only be about natural 'resources' but it includes cultural and (im)material dimensions as well.[41] There are integral links between biological and cultural diversity and increasing evidence for shedding the nature and culture divide.[42] Van Norren argues that transcending the anthropocentrism of SD and adopting a biocentric approach to biodiversity will mean 'replacing (the) "sustainable use of environment" by living in *harmony with nature*'.[43] Hence, in this paper, in response to the current climate crisis and the injustice of the old definition—we adopt a definition that includes the cultural and immaterial aspects of biodiversity and is representative of non-western world views. The word biodiversity as used in this paper therefore includes bio(cultural)diversity as these dimensions cannot be separated.

This approach is also apt for the connection between GIs and biodiversity.[44] GI products depend on their *terroir*, or on the human and environmental links to their origin for their quality and their sustainability. We adopt a definition where *terroir* includes not only 'the *terre* or the territorial bases of the word and of the concept' but also 'the human dimension originating from the fact that to express the quality of the land, human intervention is required. As such, *savoir-faire*, knowledge, traditions, and the social characteristics of terroir are also features that terroir can evoke'.[45] GIs can be important tools as (ideally) the production standards of GI products are controlled by the producer community itself and can include traditional and innovative methods of resource extraction and transformation as a mandatory requirement for the GI label. This is explained more in section 4. The producer community also has to be defined inclusively, and the participation of producers at the lowest levels of the supply chain cannot be ignored, which is why GI governance needs to be paid attention to (see section 6).

GIs were first defined under Article 22.1, TRIPS Agreement, as '…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'.[46] The philosophical origin of this definition lies in the French concept of *terroir*.[47] In the 19th and early 20th century, wine producers and traders were struggling against fraud and adulteration practices and lobbied for regulation of wine labels and standardization of wine-making practices from different regions. *Terroir* was defined in the French parliament in 1927 with the intention to include both the physical links to the origin as well as the human one (and it can be extended to a communal one).[48] However, the link between the origin and the product in the TRIPS definition is a diluted version of the Lisbon Agreement 1958's definition of appellations of origin under Article 2(1): 'the geographical denomination of a country, region, or locality, which serves to designate a product originating therein, the quality or characteristics of which are due exclusively or essentially to the geographical environment, including natural and human factors'.[49] The flexibility that the TRIPS Agreement includes was necessary for its successful negotiation. Any country that wants

40 The Convention on Biological Diversity of 5 June 1992 (*1760 U.N.T.S. 69*), Art 2.

41 Christine Frison, 'Biodiversity' in Koen De Feyter and others (eds), *Encylopedia of Law and Development* (Edward Elgar Cheltenham 2021) 20.

42 See Fabien Girard and others, (eds), *Biocultural Rights, Indigenous Peoples and Local Communities: Protecting Culture and the Environment* (Routledge London and New York 2022) ch 1, where authors connect the history of biodiversity with the concept of biocultural diversity and create a quintessential bridge between nature and cultures of indigenous and tribal peoples. 'At the very least, this "biocultural axiom" has nurtured the notion that biodiversity forms part of complex territorialised networks, living systems, inextricably linking worldviews and praxis, expressing attachments to the earth and more-than-humans (Tsing, 2013); and that, therefore, alternative approaches to biodiversity conservation ought to be sustained, bounding up considerations of human rights, equity, ethics, and ontologies (see Mulrennan & Bussières, 2020, p. 299)'.

43 van Norren (n 24) 252.

44 Laurence Bérard and Philippe Marchenay, '*From Localised Products to Geographical Indications*' (CNRS Ressources des terroirs 2008). Available at https://www.ethno-terroirs.cnrs.fr/IMG/pdf/Localized_Products_to_GI.pdf (accessed 27 December 2020).

45 Nathalie Spielmann and Claire Gélinas-Chebat, 'Terroir? That's Not How I Would Describe It' (2012) 24 *International Journal of Wine Business Research* 254.

46 TRIPS: Agreement on Trade-Related Aspects of Intellectual Property Rights, 15 April 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299, 1994 [TRIPS Agreement].

47 *Terroir* eludes literal translation in English; however, several definitions have been given. Spielmann et al. define it as '…having physical and agricultural origins, based on the *terre* or territorial bases of the word and of the concept […] Additionally, *terroir* has a human dimension, originating from the fact that to express the quality of the land, human intervention is required. As such *savoir-faire*, knowledge, traditions, and the social characteristics of *terroir* are also features that *terroir* can evoke'. Spielmann and Gélinas-Chebat (n 45). Wilson explains that, '…The true concept is not easily grasped but includes physical elements of the vineyard habitat- the vine, subsoil, siting, drainage, and micro-climate. Beyond the measurable ecosystem, there is an additional dimension – the spiritual aspect that recognizes the joys, the heartbreaks, the pride, the sweat, and the frustrations of its history'. Wilson 1998 cited in Elizabeth Barham, '"Translating Terroir" Revisited: The Global Challenge of French AOC Labelling', *Research Handbook on Intellectual Property and Geographical Indications* (Edward Elgar 2016). See further discussion in Devanshi Saxena and Esther van Zimmeren, 'The Transforming Face of Terroir: Unde Venis Geographical Indications?' in P Sean Morris (ed), *Intellectual Property and the Law of Nations, 1860–1920* (Brill Leiden and Boston 2022) 375.

48 Andrea Zappalaglio, *The Transformation of EU Geographical Indications Law* (Routledge Oxon 2021) 54.

49 Lisbon Agreement for the Protection of Appellations of Origin and their International Registration 1958 (as amended on 28 September 1979), WIPO Lex No. TRT/LISBON/001 [Lisbon Agreement]. To learn more about the process of arriving at the TRIPS definition and its connection with European regional developments on GIs, see ibid 111–114.

to be a member of the WTO in order to benefit from rules of free trade codified therein needs to comply with the TRIPS Agreement and include protections for GIs. This resulted in a legislative push for countries that hitherto did not have any specific and targeted GI protection legislation to quickly enact one.

As a result, there are different national definitions and within the same country, there can be separate and sometimes complementary laws to protect origin-linked products depending on the sector (agricultural, wine and spirits, non-agricultural). There are four main ways to protect GIs: sui-generis regimes, collective or certification marks, business practices such as requiring administrative approval and unfair competition laws.[50] In this paper, we focus on the sui-generis and collective marks as the two most widespread methods of protection. We also restrict the scope of this paper to agricultural goods, although a discussion on non-agricultural goods is also necessary and protection of cultural diversity and traditional knowledge has been long ongoing.[51] It is significant to note that the definition of GIs included in the TRIPS agreement and transplanted into sui-generis legislations worldwide is a European creation with French roots specifically.[52] WTO member countries that are adopting new GI legislations today in order to comply with Article 22 of the TRIPS agreement are allowed the flexibility within the constraints of their trade relationships with major trading partners such as the EU and the USA.[53] There are also some examples of GIs being registered as a defensive strategy for expropriation of product names, eg Rooibos,[54] Basmati[55] and Ethiopian coffee.[56] In each of these cases, the product names were being used as trade marks outside their countries of origin, which forced the governments to take an active role and initiate IP protection.[57] GIs can, in such cases, help farmers build strong rights quickly and fight misappropriation from Western companies.[58] This step may also require financial assistance and capacity-building support from the state. There are different kinds of trade pressures, more often external, that cloud decisions on developing domestic GI policies. One can see the flexibility under the TRIPS agreement in a different light for developing countries that are new entrants in the field of pre-established GI field without enough power to negotiate or develop GI policies that suit the needs of their producers.[59]

4. What does GI law require?

The multiple methods and multiple national definitions for GIs do not guarantee biodiversity conservation within their framework even when environmental resources obtained from the geographical origin are considered crucial for the product. The methods with the most chances of having a positive effect on biodiversity are those that at least require that the production practices are included in the description of the product and that the law and the governance of the GI work together to ensure that these practices are complied with. These can be mentioned in the GI specification where there is a sui-generis legislation. For example, this is the case of Protected Designations of Origin (PDO) in the EU.[60] The definition of PDOs under EU law is theoretically one of the most demanding form of protection along with the Appellations of Origin (AO) under the Lisbon Agreement.[61] Bérard and Marchenay argue that PDOs can include protections for biodiversity if the actors involved take these concerns seriously.[62] A PDO is defined under Article

50 WIPO, 'Geographical Indications',Available at https://www.wipo.int/geo_indications/en/ (accessed 8 August 2022).

51 Tomer Broude, 'Taking "Trade and Culture" Seriously: Geographical Indications and Cultural Protection in WTO Law' (2005) 26 *University of Pennsylvania Law Review* 623; Michael Blakeney, 'The Protection of Traditional Cultural Expressions by Geographical Indications' in Irini Stamatoudi (ed), *Research Handbook on Intellectual Property and Cultural Heritage* (Edward Elgar Cheltenham and Northampton 2022) 236.

52 Zappalaglio (n 48) 104.

53 Anke van Moerland, 'Do Developing Countries Have a Say? Bilateral and Regional Intellectual Property Negotiations with the EU' (2017) 48 *International Review of Intellectual Property and Competition Law* 760.

54 Registration of Rooibos as a trade mark in the US brought the producers together starting a process that led to the protection of Rooibos as a GI in South Africa in 2014. WIPO, 'Disputing a Name, Developing a Geographical Indication'. Available at https://www.wipo.int/ipadvantage/en/details.jsp?id=2691 (accessed 8 August 2022).

55 Basmati was one of the first GIs in India as a response to the US Patent Office granting a 'Basmati Rice Lines and Grains' patent to Texas-based RiceTec. Kasturi Das, 'International Protection of India's Geographical Indications with Special Reference to "Darjeeling" Tea' (2006) 9 *The Journal of World Intellectual Property* 459, 461.

56 See the dispute between Ethiopian IP Office and trade mark registrations for Ethiopian coffee varieties by the US Trademark Office, WIPO, 'The Coffee War: Ethiopia and the Starbucks Story'. Available at https://www.wipo.int/ipadvantage/en/details.jsp?id=2621 (accessed 8 August 2022). Misappropriation of Ethiopian coffee names was also one of the rationales for the protection of these names WIPO, 'The Strategic Use of Intellectual Property for Prosperity and Development' (2009) Compendium of the Proceedings of the High-Level Forum on Intellectual Property for the Least Developed Countries. Available at https://www.wipo.int/publications/en/details.jsp?id=371 (accessed 8 August 2022).

57 For both Rooibos and Basmati and impact of misappropriation by US companies, see also Estelle Biénabe and Delphine Marie-Vivien, 'Institutionalizing Geographical Indications in Southern Countries: Lessons Learned from Basmati and Rooibos' (2017) 98 *World Development* 58, 59–60.

58 Michael Handler and Robert Burrell, 'GI Blues: The Global Disagreement Over Geographical Indications' in Kathy Bowrey, Michael Handler and Dianne Nicol (eds), *Emerging Challenges in Intellectual Property* (Oxford University Press Melbourne 2011) 143.

59 van Moerland (n 53).

60 Laurence Bérard and Philippe Marchenay, 'Local Products and Geographical Indications: Taking Account of Local Knowledge and Biodiversity' (2006) 58 *International Social Science Journal* 109.

61 Zappalaglio (n 48) 229.

62 Bérard and Marchenay (n 44) 57.

5(1) of the Quality Schemes Regulation as 'a product (a) originating in a specific place, region or, in exceptional cases, a country; (b) whose quality or characteristics are essentially or exclusively due to a particular geographical environment with its inherent natural and human factors; and (c) the production steps of which all take place in the defined geographical area'. There is an exception to Article 5(1)c under Article 5(3) when the raw materials are allowed to come from an area larger than the one defined in the PDO.

In case of collective trade marks, environmental concerns can be included as a standard by the communities who apply for a collective trade mark. For example, in the case of Rooibos (South Africa), biodiversity concerns have been explicitly included within the product specification.[63] The difference between sui-generis GI protection and trade marks is notable though. Both have the possibility to make a connection with the origin; however, only the former requires this link to be made.[64] In case of Rooibos, there is a collective trade mark protection but with a flavour of sui-generis GI protection.[65] GIs are defined within the Trademarks Act 194 of 1993 but GI registration is being done through certification and collective marks.[66] Since 22 March 2019, there is a sui-generis GI protection introduced in South Africa via regulations under the Agricultural Products Standards Act, 1990.[67]

GI laws in countries which follow a sui-generis model of protection require producers to draw a link between the origin and the product. This link to origin is one of the most understudied areas in GI law. Under EU law, this link can be made to the terroir, the reputation of the product or to the historical element.[68] The product description can allude to the geographical origin as the source of raw materials or say that parts of the production process are conducted there or that the product's reputation is due the particular area (eg, when it is linked with tradition or cultural heritage of the people). In case of the collective marks method, the practices of different entities using the mark can differ and some may choose to include biodiversity conservation within the specification. The positive examples of biodiversity conservation through GIs are thus a landscape of good practices rather than an established practice or a requirement within the law. These are discussed in the next section along with risks to biodiversity conservation that have a causal connection to the failure of GI to honour their terroir.

5. Benefits and risks

GIs are multifunctional and flexible, and biodiversity conservation is cited as a positive externality. When used as a form of defensive protection, GIs can ward against biopiracy and 'bio-agro-piracy'.[69] The economic benefits from GIs can help communities preserve traditional methods, continue using environment-friendly production practices (eg, in case of Comté cheese shown below) and invest in innovations in production practices.[70] However, with current rates of biodiversity decline, biodiversity conservation should become more than a positive externality. Blakeney argues that public authorities could include environmental factors in the specifications of the GIs.[71] We would like to go a bit further and propose that GI specifications embed specific environmental laws voluntarily and that domestic GI laws specifically include this obligation. But first, we provide some illustrations of these good practices as well as some cautionary tales.

Arroz de Valencia Rice, from Spain, is protected as a PDO under the EU Quality Schemes Regulation.[72] The PDO protection exists alongside collective trade mark protection as there are different trademarked brands that producers of the rice use.[73] The producers benefit from EU agricultural subsidies and other support in line with

63 Estelle Biénabe et al., 'Le Rooibos d'Afrique Du Sud: Comment La Biodiversité s'invite Dans La Construction d'une Indication Géographique:' (2009) 50 *Autrepart* 117.

64 Cerkia Bramley et al., 'The Economics of Geographical Indications: Towards a Conceptual Framework for Geographical Indication Research in Developing Countries', *The economics of intellectual property* (WIPO 2009) 60. Available at https://www.wipo.int/edocs/pubdocs/en/economics/1012/wipo_pub_1012.pdf (accessed 20 January 2019).

65 ibid.

66 Biénabe and Marie-Vivien (n 57) 60.

67 Regulations Relating to the Protection of Geographical Indications Used on Agricultural Products Intended for Sale in the Republic of South Africa, No R.447, 22 March 2019. Available at https://www.gov.za/sites/default/files/gcis_document/201903/42324rg10925gon447.pdf (accessed 14 August 2015). While further discussion on these is not within the scope of this article, see Sadulla Karjiker, 'Geographical Indications: The Cuckoo in the IP Nest' (2020) 137 *South African Law Journal* 763.

68 Zappalaglio (n 48).

69 'Production knowledge, such as techniques for cultivation and processing, is often associated with specific biomaterial ("biodiversity-related knowledge") and is usually "informal" and "customary" and, thus, hedged in positive law and easily appropriable for industrial application by third parties unrelated to the originating community ("bio-agro-piracy")'. Rocco Palma, 'Agroecology and Geographical Indications at the WTO and in the EU Between Magic and Rationality: "Reinventing" Marketing Designations to Preserve Rural Economy, Cultural Heritage and the Environment', *Food Diversity Between Rights, Duties and Autonomies* (Springer Cham 2018) 63.

70 Alessandro Gocci and Christoph Luetge, 'The Synergy of Tradition and Innovation Leading to Sustainable Geographical Indication Products: A Literature Review' (2020) 10 *Journal of Management and sustainability* 152.

71 Michael Blakeney, 'Geographical Indications and Environmental Protections' (2017) 12 *Frontiers of Law in China* 162.

72 Regulation (EU) No 1151/2012 of the European Parliament and of the Council of 21 November 2012 on quality schemes for agricultural products and foodstuffs, L 343/1 [Quality Schemes Regulation].

73 Mariano Riccheri and others, 'Workpackage 3 Assessing the Applicability of Geographical Indications as a Means to Improve Environmental Quality in Affected Ecosystems and the Competitiveness of Agricultural

the Common Agricultural Policy.[74] The PDO is complemented with the fact that the production area (Albufera national park) is a protected wetland under the Ramsar List of Wetlands of International Importance.[75] The producers also benefit from regional grants to protect agriculture in these wetlands.[76] It is not only the GI label that enables producers to be in a mutually enriching relationship with the wetlands but a combination of agricultural subsidies and designation of the area as an area of international importance.[77] Recent reports from Valencia show however that the land, the local fauna as well as the rice producers are suffering from the effects of the heat waves in Europe.[78] While GIs can be part of the toolset for conserving biodiversity, the effects of climate change are pernicious and one tool is not enough but it can be a step in the right direction.

The PDO has been able to protect the terroir against the harmful effects of a liberal economic exploitation in a similar way for Comté cheese in France where it limits intensive farming and contributes to maintaining the pasture and woodland in the Jura region.[79] There are other similar positive impacts on biodiversity evidenced in the European olive oil industry.[80] Another example is Sharr cheese from Kosovo, where the objectives of protecting the GI were anchored in sustainability of the region. Research shows that there is a positive synergy between pastoral practices and the biodiversity of the Sharr mastiff which was identified to be at risk, leading to a need to root this synergy in the 'long-term evolution of the agrarian systems'.[81] Some more examples are provided in the research of Pick where the case of Pélardon cheese, wood from the Alps and green lentils from Berry in France include formal rules within the GI specification that are sensitive to environmental protection concerns.[82] For example, in case of Pélardon cheese, the GI specification includes minimum obligations that ensure consistency with traditional pastoral practices regarding grazing of goats on the territory and the product specification of green lentils from Berry forbids inputs from fertilizers or sludge from treatment plants.[83] GIs may not be enough to produce the desired effects, and further knowledge exchange or 'knowledge brokering' will be needed, authors in this research suggest. Such knowledge brokering comes from 'an intense and contested co-learning process'[84] which is an example of reflexive governance.[85] Such possibilities do not exist with externally imposed ecolabels which have pre-defined criteria.[86]

In case of Rooibos tea from South Africa, studies provide a positive account of how stakeholders (farmers and the industry) have been involved in the creation of the GI specification and systematic inclusion of biodiversity concerns for the Fynbos biome.[87] In addition to domestic protection, Rooibos is protected as a PDO.[88] The PDO specification states (p. 10), 'The Rooibos plant is cultivated in the Cape Floristic Region which is designated by Conservation International as a biodiversity hotspot (Mittermeier et al, 2005); and fynbos is a WWF Global 200 priority eco-region for conservation (Malcolm et al, 2002). In 2004, the 'Cape Floral Region Protected Areas' was also inscribed by UNESCO as a World Heritage Site.' The specification further states that at the national level, 'Future loss of biodiversity is addressed by South African environmental legislation [National Environmental Management Act (Act 107 of 1998), and the Environmental Impact Assessment Regulations], various spatial informants such as Biodiversity Sector Plans, Area Wide Plans and an Environmental Management Framework (in development) for part of the main production area, and the development and implementation of biodiversity best practices for Rooibos/Red Bush production'. It is also notable that as per the specification, that the South Africa Rooibos Council developed sustainability standards in 2011 to 'promote responsible social and environmental practices in Rooibos/Red Bush farming' (p. 11).

Rooibos has a poor record however, in terms of the historical valuation of indigenous knowledges and industry accountability towards the Khoisan peoples and Rooibos

Products' (2007) 3 44. Available at https://ideas.repec.org/p/ess/wpaper/id847.html (accessed 12 July 2021).

74 ibid 51.

75 Ramsar.org, 'The List of Wetlands of International Importance'. Available at https://www.ramsar.org/sites/default/files/documents/library/sitelist.pdf (accessed 12 August 2022) 45.

76 Riccheri and others (n 73) 46.

77 ibid 122.

78 Iker Morán, 'El Año Más Incierto Para El Arroz En España: Sequía En El Sur y Siembra Tardía En Valencia' *La Vanguardia* (10 August 2022). Available at https://www.lavanguardia.com/comer/al-dia/20220810/8457418/sequia-arroz-valencia-delta-produccion.html (accessed 12 August 2022).

79 Blakeney (n 71) 167.

80 See also eg, Manchego cheese in Vandecandelaere and others (n 4) and Ardéche chestnuts from France in Bérard and Marchenay (n 44).

81 Claire Bernard-Mongin and others, 'Geographical Indication Building Process for Sharr Cheese (Kosovo): "Inside Insights" on Sustainability' (2021) 13 *Sustainability* 5696, 7–9.

82 Barbara Pick, *Intellectual Property and Development: Geographical Indications in Practice* (Routledge Oxon and New York 2023) 201.

83 ibid.

84 Bernard-Mongin and others (n 81).

85 Luke Owen and others, 'Place-Based Pathways to Sustainability: Exploring Alignment between Geographical Indications and the Concept of Agroecology Territories in Wales' (2020) 12 *Sustainability* 4890.

86 Bernard-Mongin and others (n 81) 13.

87 Biénabe, Leclercq and Moity-Maïzi (n 63).

88 Application for protection of the name 'Rooibos / Red Bush' in terms of Regulation (EU) No 1151/2012, ZA/PDO/0005/02427, Date of application: 21 August 2018.

farmers.[89] Ives shows that the Rooibos GI in defining the geographical area has focused more on the territory where it now grows to the exclusion of Rooibos's 'kinship' with the people who grow it.[90] While there is surveillance to monitor that Rooibos is not grown beyond the defined area, less attention has been paid to the living condition of the workers, their job security and their wages.[91] Basset et al. have already criticized this approach of merging terroir and territory by conservation and development planners as it is instrumentalized to exclude newcomers in the name of local heritage.[92] Indeed, Ives cites an environmental worker who worked together with the South African Rooibos Council to create the GI as he says 'The idea is that if you are illegal, you can't sell your tea as Rooibos' and therefore, people and plants from outside the region are illegal and are problematically politicized by some as 'invasive species' who threaten biocultural diversity. One would be right to wonder what the role of law in such scenarios is, if not to re-centre the inter-dependence of the human–nature relationship for biocultural diversity. GI law, we argue, cannot be silent on this. Ives also questions the rigidity of the law that has 'seemingly foreclosed the possibility of migratory indigeneity for residents' while the plant moves as it responds to climate change.[93] GI law, especially when it has an objective to conserve biodiversity, should be able to take the evolutionary aspects of biodiversity into account or it misses the objective. This is valuable to consider at the stage of creation of the GI but also later through a reflexive governance approach, explained in the next section.

Other studies provide evidence of risks of GI protection in the face of market demands by not being able to prevent the dilution of traditional production practices and threatening biodiversity. Pick cites the example of chestnut from Ardéche where the only 19 out of 66 varieties are valorized by the GI which is unfavourable to the genetic diversity of chestnuts in the region.[94] Another finding is about the product specification of Bouchot mussels from Mont-St-Michel Bay which puts size limitations on GI-protected mussels resulting in 30–40 per cent of mussels being unqualified for GI protection for being less than 4 cm.[95] These are then discharged in an open-air area resulting in pollution.

Further, Broude argues that GIs by themselves are a poor tool to protect culture and uses examples of French and Italian wines to argue that market pressures can prompt producers to move away from traditional practices.[96] To be clear, if producers wish to make improvements to the quality of the product, they are allowed to make innovations on traditional practices.[97] Socio-economic circumstances of the producers are as important as the soil and natural characteristics of the land. However, it is at this stage that different rationales for protection of GIs may conflict, viz. protection of biodiversity, protection of traditional knowledge and cultural heritage and economic development through GIs. The role of the state as well as high valuation of producer knowledges becomes extremely important when this happens. This can be illustrated well with the example of Tequila.

Tequila's GI specification has failed to valorize its terroir.[98] GI registration and governance process have *a causal link* with the loss of biodiversity in the region and inequality and injustice towards traditional Tequila farmers and smaller distilleries.[99] Several varieties of agave were distilled traditionally to make mezcal drinks but the GI for Tequila permits only blue agave resulting in over-extraction and monocropping.[100] While the agave landscape has been declared as a World Heritage Site since 2006, most of this land belongs to large industries. 'Multinationals control, either by owning or renting, part of the biocultural heritage'.[101] There are important lessons here about inclusive governance of GIs.

89 Rosemary J Coombe and S Ali Malik, 'Transforming the Work of Geographical Indications to Decolonize Racialized Labor and Support Agroecology' (2018) 8 *UC Irvine Law Review* 363, 376–379.

90 Sarah Fleming Ives, *Steeped in Heritage: The Racial Politics of South African Rooibos Tea* (Duke University Press Durham 2017) 195.

91 ibid.

92 Thomas J Basset et al., 'Constructing Locality: The Terroir Approach in West Africa' (2007) 77 *Nature as Local Heritage in Africa* 104.

93 Ives (n 90) 196.

94 Pick (n 82) 202.

95 ibid.

96 Broude (n 51).

97 Anke van Moerland, 'Geographical Indications and Innovation, What Is the Connection?' in *The Innovation Society and Intellectual Property* (Edward Elgar Cheltenham 2019) 59.

98 Bowen and Zapata (n 1).

99 'In the case of tequila, the links oriented towards the end of the chain obtain the highest profits. Industries that are located in the DO zone, which process on a large scale and traders who are often foreign packers, mainly from the United States, are the main beneficiaries of the DO'. Pérez-Akaki and others (n 1) 20. Even when there is no evidence of causal connection between the deterioration of GI and its terroir, other causes of environmental harm such as global warming can necessitate that GI holders also take the impact of the GI production seriously. For example, the impact of climate change on the production of Muga silk which may force the relocation of GI production to another territory which was originally not protected by the GI. Our thanks to prof. Jupi Gogoi for this insight. See Sahana Ghosh, 'Assam's Muga Silkworm Battles Climate Change' (*Mongabay*, 23 February 2018). Available at https://india.mongabay.com/2018/02/assams-muga-silkworm-battles-climate-change/ (accessed 15 August 2022).

100 Ana Valenzuela Zapata and Marie Sarita Gaytan, 'Sustaining Biological and Cultural Diversity' (2012) 2 *Revue d'ethnoécologie* 5.

101 Pérez-Akaki and others (n 1) 20. See also, Tetreault, McCulligh and Lucio (n 4).

6. Governance of GIs for biodiversity conservation

When poorly governed, GIs can cause the exclusion of producers from their cultural heritage, abandonment of traditional methods, producer's innovation practices and related knowledge and creation of product specifications in case of agricultural products that can result in reduced biodiversity.[102] From the previous sections, it flows logically that GI governance that does not value producer knowledge risks deterioration of biodiversity and the hollowing out of the *terroir* that the GI is supposed to protect. Regardless of the rationale of protection, inclusive governance of GIs that values producer knowledge is paramount.[103] This is not something that can be traded off for pro-industry economic development with the hypothesis that benefits will trickle down the supply chain.[104] A deterioration of biodiversity can be debilitating for the whole supply chain and the whole region. Who is included in the definition of producers and authorized users of the GI and awareness about their negotiating power is also important.[105] This is something that can be ensured by all actors involved but this is also a crucial point where State intervention can help. Sen talks about the 'social choice' problem which is relevant for the governance of GIs as well.[106] There needs to be 'freedom of discussion as well as freedom of political participation to allow the democratic process to work'.[107]

There are other areas of GI governance where the state can have a role. On the basis of a comparative analysis of governance models in France, India and Singapore, Calboli and Marie-Vivien argue that even though countries choose their own governance models as per the circumstances, the State should remain in charge in some stages of the GI management process, such as, examining and approving GI specifications and monitoring infringement post-registration.[108] The objectives of state intervention are not only to enable just and inclusive governance of the GI supply chain but also to safeguard public goods.[109] Governance of agricultural GIs as agro-commons can be beneficial as it can valorize human–land relations that benefit biodiversity.[110] GI governance then must be such that it is capabilities enhancing.

Owen et al. further argue that to aid sustainable transitions; GIs should be reflexively governed, ie, 'inclusive arenas with the potential to open up debates that may otherwise have been dominated by powerful actors whose interests lie in ensuring the continuation of the status quo'.[111] After studying Welsh GIs from 2018–2019, they find that stakeholders understand that a protected food name can be good for safeguarding nature against the impulses of the market that can put pressure on local resources.[112] The study also discusses a trend towards 'greening' of product specifications to respond to broader concerns towards sustainability which is not sufficient if it is not paired with reflexive governance. These discussions are also relevant for the following arguments on why third-party GIs cannot entirely fill the gap.

7. Can GI specifications find inspiration elsewhere?

In section 3 we gave some examples wherein collaborations between all stakeholders from the beginning of the GI application process have resulted in the embedding of biodiversity concerns within the GI protection mechanisms. Blakeney advocates for the inclusion of biodiversity concerns within the GI from the start of the application process.[113] It is crucial in these processes that the freedoms and capabilities of producers are enhanced so that they are able to decide if GIs are a worthy investment. It is also important to ensure that the drawing of

102 Juliana Santilli, 'Geographical Indications for Agrobiodiversity Products: Case Studies in France, Mexico and Brazil', in Santilli, *Agrobiodiversity and the Law: Regulating Genetic Resources, Food Security and Cultural Diversity* (Earthscan London 2012) 314; Rosemary J Coombe and S Ali Malik, 'Rethinking the Work of Geographical Indications in Asia: Addressing Hidden Geographies of Gendered Labor' in Irene Calboli and Wee Loon Ng-Loy (eds), *Geographical Indications at the Crossroads of Trade, Development, and Culture* (1st edn, Cambridge University Press Cambridge 2017) 87. https://www.cambridge.org/core/product/identifier/9781316711002%23CN-bp-4/type/book_part (accessed 3 July 2022).

103 Bérard and Marchenay (n 44) 55.

104 Pérez-Akaki and others (n 1).

105 West gives several examples within Europe to show of how the idea of terroir is bound up in social hierarchies and argues that it can reinforce them. Harry G West, 'Terroir Products: A Movable Heritage Feast?' (2022) 103 *Review of Agricultural, Food and Environmental Studies* 1. See Mancici also for the argument that GIs can introduce new power relations into the supply chain. Maria Cecilia Mancini, 'Geographical Indications in Latin America Value Chains: A "Branding from below" Strategy or a Mechanism Excluding the Poorest?' (2013) 32 *Journal of Rural Studies* 295, 296.

106 Sen (n 17) 10.

107 ibid.

108 Calboli and Marie-Vivien (n 12).

109 Vandecandelaere and others (n 6) 26.

110 Giovanni Belletti et al., 'Geographical Indications, Public Goods, and Sustainable Development: The Roles of Actors' Strategies and Public Policies' (2017) 98 *World Development* 45; Enric Castelló et al., 'The Narratives of Geographical Indications as Commons: A Study on Catalan and Swedish Cases' (2022) 26 *Food, Culture & Society* 1014.

111 James Kirwan et al., 'Reflexive Governance, Incorporating Ethics and Changing Understandings of Food Chain Performance: Reflexive Governance, Ethics and Food Chain Performance' (2017) 57 *Sociologia Ruralis* 357, cited in Owen and others (n 85) 12.

112 An interview from a policy stakeholder quoted in this study says, 'I think the regulatory floor upon which agriculture stands has to be toughened up quite a lot and has to be enforced much more than it currently is, which from a Protected Food Name point of view is probably a good thing, but it's also a good thing from the point of view of broader social outcomes'. ibid 14.

113 Blakeney (n 71).

'inside-outside boundaries' of the GI does not follow the politics of exclusion.[114]

Aylwin and Coombe argue for the adoption of a human rights-based approach to the governance of GIs to avoid 'reproducing old forms of privilege or perpetuating new forms of injustice'.[115] To start with, the intersection between GI law and international environmental law on biodiversity conservation may be useful to map. Seeing this intersection and including environmental guarantees that already exist as part of international and national law in the regulation of GIs can be mutually reinforcing. The law must make it impossible to see environmental degradation as an acceptable trade-off for temporary economic gains. If a product depends on the natural environment for its production, environmental harms jeopardize the long-term sustainability of the product as well. If national legislations require GI specifications to embed biodiversity conservation in the description of the product, eg, no use of pesticides or limit environmentally unsustainable practices, then GI law can address the risks identified in the sections above. While this may sound like more state intervention in the description of the GI than before, it is warranted considering the public good nature of GIs and the wider public policy rationales that are being given for it.

The environmental rules applicable to the product will differ for different sectors of products and these rules should be made in participation with the communities. Pistilli explores the link between the sustainability of human liberties and the human capabilities approach and promotes 'an extension of shared ownership, since the process of creating new private property rights can reduce the sense of social harmony on which changes in value can significantly depend'. We argue that extending this shared ownership and responsibility—and therefore reinforcing the community's capabilities—can be reached by integrating in the GI specification environmental rules applicable to the product and collectively decided by the community.[116]

The positive examples referenced in section 3 can be seen more as fortunate coincidences but GI laws do not systematically include these protections. There is limited literature that understands the incompatibility of market-based sustainability and development policies that accept trade-offs between economic growth and biodiversity protection (as understood here).[117] In the next section, we show that so far, third-party certifications have tried to fill in this gap, but they offer only a limited solution.

8. Why third-party certifications or eco-labels cannot replace GIs

The third-party here is an external authority/organization that creates certification marks and labels such as organic, Rainforest Alliance or Fair-Trade marks. They create a list of rules that prospective producers have to follow in order to use their label. These can be seen as offering some protection outside the realm of GIs or in complementarity with any environmental, traditional knowledge or cultural heritage protection rules that exist within the GI. GI scholars argue that third-party certifications contrast 'with the rationale of a GI as an IPR, which is to protect the geographical name recognized as such by consumers, because it is reputed, without the need for any additional certification system and logo. While control of compliance with the specification is a pillar of the GI system as is true of other standards, GI specifications are tailored with local stakeholders whose local know-how and resources confer the reputation. Producers are joining as standard makers and not only as standard takers'.[118]

Third-party certifications are optional and are currently acting as placeholders in the absence of similar initiatives by the producers themselves or the state. Moreover, they can be expensive to regulate for the producers, especially in developing countries,[119] and are not set in participation with the direct producers.[120] Meemken et al. have studied farmer preferences for sustainability standards amongst coffee producers in Uganda and have found a general preference for them though with some reservations.[121] Certifications which can add substantial costs, such as requiring a ban on pesticides or fertilizers, are viewed negatively by farmers who are not already using organic farming methods and in the former case, they would expect to be compensated for those additional costs. When sustainability standards are

114 Donna Harraway, 'Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective' (1988) 14 *Feminist Studies* 575.

115 Aylwin and Coombe (n 29) 757.

116 Pistilli (n 27) 10.

117 Coombe and Malik (n 89); Jennifer Keahey and Douglas L Murray, 'The Promise and Perils of Market-Based Sustainability' (2017) 3 *Sociology of Development* 143.

118 Delphine Marie-Vivien and Estelle Biénabe, 'The Multifaceted Role of the State in the Protection of Geographical Indications: A Worldwide Review' (2017) 98 *World Development* 1, 4.

119 David R Downes and Sarah A Laird, 'Innovative Mechanisms for Sharing Benefits of Biodiversity and Related Knowledge: Case Studies on Geographical Indications and Trademarks' (1999).

120 Mamen Cuéllar-Padilla and Ernesto Ganuza-Fernandez, 'We Don't Want to Be Officially Certified! Reasons and Implications of the Participatory Guarantee Systems' (2018) 10 *Sustainability* 1142.

121 Eva-Marie Meemken et al., 'Toward Improving the Design of Sustainability Standards—A Gendered Analysis of Farmers' Preferences' (2017) 99 *World Development* 285.

added within the context of a GI, combined with state support for making the transitions, there could be a higher uptake for such costly standards. State support can include participation in the understanding of sustainability, followed by knowledge-brokering on the use of environmentally harmful practices. In the study, sustainability standards are in general seen as positive incentives for making lasting changes in the long term.[122] In the same vein, Coombe and Malik also criticize Fair-Trade labels as having failed to recognize the labour of plantation workers in Asia.[123] They make the same argument for Rooibos wherein fair trade or socially and environmentally conscious certifications have not enabled all classes of actors to be included within the GI process.[124] Therefore, similar to the argument with environmental standards, we support the calls for infusion of fair labour conditions through labour laws into the GI specification as social and environmental sustainability go together.[125]

9. Conclusion

In this paper, we make a case for activating producers' voices in the discussions on protecting biodiversity through GIs. The literature on the impact of the Tequila GI on the biodiversity of the region as well as the 'elite capture' of the Tequila supply chain guide our analysis.[126] The capabilities approach is a useful lens to redeem GIs and activate producers' rights for the protection of biodiversity. This includes awareness of deep-rooted inequalities, creation of reflexive governance spaces and the commitment to ensure that these are not reinforced through the GI protection process. Through this paper, we would like to put the spotlight once again on bio(cultural) diversity conservation through GIs and use a critical lens towards current GI laws that while providing flexibility do not go far enough to safeguard biodiversity. In the same breath, we also want to argue for the systematic linkage of the human–nature relationship in the designing of GI specifications for the objective of biodiversity conservation. When national laws are not prepared for this possibility, the approach for registering more GIs and justifying the approach with arguments on increased sustainability, rural development or biodiversity conservation is a lot like greenwashing.

While we are in complete agreement that at the time GI law was being developed in the early 19th century, environmental protection was not its primary objective, even today it remains an afterthought. Gangjee (quoting Mesnier) explains that wine producers in France adapted their practices to suit the environmental conditions of the land which is part of the terroir of the land.[127] These practices were included in GI product specifications in France and in this way agriculture was suited to the environmental conditions that already existed. This helped create a product that was unique to the place where it was produced and was marketed as being in line with the terroir. In this sense, producing in line with the environmental conditions was integral to GIs but this does not necessarily encompass an objective to protect the environment from over-extraction. Such protection is necessary when a concept travels from one context to another. We assert that where the legislative and governance safeguards are clearly absent, claims that GIs lead to biodiversity conservation can be misleading and should not be made. The risks should not be overlooked, and GIs should be more robust in their multi-functionality.

122 Bernard-Mongin and others (n 81).

123 Coombe and Malik (n 102) 95.

124 Coombe and Malik (n 89) 16.

125 Althaf Marsoof and Li Ting Tan, 'A CSR/Fair Trade Inspired Policy for Fairer Geographical Indications' (2021) 24 *The Journal of World Intellectual Property* 253.

126 'The term is used in economics, political science, and related disciplines to describe the way socially advantaged people tend to gain control over benefits meant for everyone'. Olúfẹmi O Táíwò, *Elite Capture: How the Powerful Took over Identity Politics (and Everything Else)* (Haymarket Books Chicago 2022) 22. Tetreault, McCulligh and Lucio (n 4).

127 Dev Gangjee, *Relocating the Law of Geographical Indications* (Cambridge University Press Cambridge 2011) 90.

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