# Geographical Indications and Public Good Relationships: Evidence and Policy Implications

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Liens entre indicateurs géographiques et biens d'intérêt public : données probantes et implications pour l'action publique

Geografische Herkunftsangaben und Beziehungen zum Gemeinwohl: Erkenntnisse und politische Implikationen

**Maria Cecilia Mancini, Marianna Guareschi, Valentin Bellassen and Filippo Arfini**

Geographical Indications (GIs) are distinctive signs used to identify a product whose quality, reputation or other characteristics relate to its geographical origin. According to EU Regulation 1151/2012, GIs contribute to the realisation of rural development policy objectives as the generation of private goods is expected to result in the generation of indirect benefits, identifiable as public goods (PGs) (Kaul *et al.,* 1999). Consequently, rural development, assessed through the generation of private goods and related PGs, is impacted by the sustainability of GI food value chains (Belletti *et al.,* 2017). These chains are managed through collective rules defined in the Code of Specifications (CoS) and through the actions of private and public stakeholders that interact in production (Arfini *et al.,* 2019a). These rules may contribute positively to the sustainable development of local rural communities and preservation of production systems.

In this article, we propose a relationship between GI value chains and PGs generation which result in GI value chains producing positive environmental, social and economic externalities, i.e. indirect benefits to wider society. These benefits result from the rules for the sustainable use of local resources and production factors (Arfini *et al.,* 2019a and b; Belletti *et al.,* 2017, Mancini *et al.,* 2019) codified in the CoS.

The hypothesis that GIs generate PGs was tested as part of the Horizon2020 'Strength2food' project (www.strength2food.eu). This project analysed the sustainability of GI value chains and areas of production (Bellassen *et al.,* 2022) and investigated the relationship between PGs and the CoS. Rules defined in the CoS which support PGs production are proven good practices that can cross-fertilise other GI production systems and foster the management and valorisation of PGs over time. In the 'Strength2food' project, 19 GI chains in 14 countries were selected (Table 1) to have the best territorial coverage among the project partner countries and the highest number of product categories represented. Wine was an exception, which was beyond the scope of this research. The results were published in the 'Strategic Guide on Sustainable Food Quality Schemes' (Arfini *et al.,* 2021).

This article reports the main highlights of the 'Strategic Guide on Sustainable Food Quality Schemes' report, as well as recommendations

**Table 1: GI value chains under analysis**

| Food category | Protected designation of origin (PDO) | | Protected geographical indication (PGI) | |
|---|---|---|---|---|
| **Cereal** | | | **TKR Horn Mali Rice** | ***Thailand*** |
| Dairy | Comté Cheese<br>Parmigiano Reggiano Cheese | *France*<br>*Italy* | Sienica Cheese | *Serbia* |
| Meat | | | Dalmatian Prosciutto<br>Gyulai Sausage<br>Sobrasada Porc Negre | *Croatia*<br>*Hungary*<br>*Spain* |
| Fish | Saint Michael Bay Bouchot Mussels | *France* | Loften Stockfish<br>Ternasco de Aragorn Lamb | *Norway*<br>*Spain* |
| Fruit and vegetables | Opperdoezer Ronde Potatoes<br>Zagora Apples | *Netherlands*<br>*Greece* | Kastoria Apples<br>Kaszubska Strawberries | *Greece*<br>*Poland* |
| Coffee and dressings | Kalocsai Paprika<br>Olive Oil<br>Phu Quok Fish Sauce | *Hungary*<br>*Croatia*<br>*Vietnam* | Buon Ma Thuot Coffee<br>Doi Chaang Coffee | *Vietnam*<br>*Thailand* |

*Source:* www.strength2food.eu



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for action inferred from the analysis of good practices which contribute to the generation of PGs and thus to the improvement of a sustainable rural development process.

### Identification of PGs produced by GI value chains

The process of identifying the PGs produced by the rules defined in the CoS was organised into four steps:

1. Classification of PG typologies. According to the Strength2food methodology, three classes of PGs were considered: cultural heritage preservation; socioeconomic (including governance); sustainability and the use of natural resources.
2. Identification of the driving factors (determinants) that generate PGs (Table 2).
3. Identification of good practices which foster and valorise PGs over time through the analysis of the CoS.
4. Recommendations for action that enhance PG management and valorisation.

> “Il est important que les producteurs d’indications géographiques soient conscients que leurs actions productives génèrent également des externalités positives qui peuvent être perçues comme des biens d’intérêt public.”

### Characteristics of GI rules that foster PGs

The case studies show that GI rules result from the collective action of the agents of the value chain and the stakeholders involved in the production area. Specifically, they can be considered as a technical, economic and social ‘compromise’ (Brunori *et al.*, 2016) that has different impacts on PG production.

**Table 2: Determinants by PG category**

| Public goods | Determinants |
|---|---|
| Cultural heritage preservation | • Embeddedness in the territory |
| | • Communication and valorisation |
| | • Respect for qualitative and traditional aspects |
| | • Generational change |
| | • Labour profitability |
| | • Support for tourism initiatives |
| Socio-economic sustainability | • Governance mechanisms |
| | • Economic spillovers |
| | • Intensity of network relationships |
| | • Gender equality |
| | • Association board membership |
| | • Participation of the cooperative system |
| | • Bargaining power distribution |
| | • Marketing management |
| | • Short supply chain organisation |
| | • Supply control and value creation |
| Use of natural resources | • Animal welfare |
| | • Quality of resource exploitation |
| | • Carbon footprint control and management |
| | • Water quality creation and management |
| | • Respect for biodiversity |
| | • Protection of soil quality |

*Source*: Authors’ elaboration, Strength2food data.

The CoS was analysed and segmented to identify the rules that can act as ‘good practices’ for other GI producers facing the same issues. From the analysis performed and the comparison of the case studies, some recommendations for action to improve the three categories of PGs are reported below by type of PG.

#### *Recommendations to enhance cultural heritage preservation*

- *Developing professional and social relationships along the value chain at the territorial level.* The objective is to develop a relationship of trust between value chain actors and other local stakeholders that contributes to a positive reputation and value around the territory. Practical examples of methods to foster these relationships include regular meetings of GI Consortium members (e.g. Buon Ma Thuot Coffee); collaboration with educational institutions such as universities, research institutions, and high schools (e.g. Sobrasada de Mallorca); and the participation of producer cooperatives and consortia in national and international research and innovation projects (e.g. Parmigiano Reggiano cheese).
- *Creating a sense of belonging and identity by anchoring producers to the territory.* The actors of the value chain and local citizens share values that nurture a sense of belonging which directly and indirectly supports and benefits the local community. Several GIs are closely linked to the social, cultural, and religious aspects of a territory and its communities. In the case of Ternasco de Aragón, the consumption of young lambs has been documented since Roman times, and sheep farming is important in Aragón because of its economic (ovine species provide meat, milk, wool, skin and manure), religious (lamb is a meat allowed in the three most widespread religions,

and plays a fundamental role in religious representations), social (for its socialising role in family meals) and environmental impacts. For these cases, the production system preserves the local characteristics and enhances the identity of local citizens.

- *Communicating the cultural, historical and traditional characteristics of products.* Communication to increase the awareness of the GI product's territorial quality must be addressed both to the value chain operators and to consumers/citizens inside and outside the production area. Some examples of communication activities include: developing a website to promote the product and disseminate news about the Consortia/Associations/companies (e.g. Parmigiano Reggiano cheese); publishing information pamphlets for consumers and recipe books (e.g. Sobrasada de Mallorca); improving the communication to consumers through the hotel-restaurant-cafè sector (e.g. Kafae Doi Chaang); and facilitating contacts between consumers and producers to promote direct sales (Cres Olive Oil).

- *Organising educational and training activities that encourage generational change.* Although good practices are usually well known among operators, it is important to ensure that they are properly implemented through training. This implies technical assistance to producers on health, safety, labelling and traceability regulations (e.g. Sjenica sheep cheese), professional training designed to disseminate knowledge and stimulate innovation. These objectives include courses on genetics, nutrition and production system management in collaboration with education institutions (e.g. Ternasco de Aragón).

- *Organising cultural, tourist and promotional events.* Communication through experiential approaches and the organisation of cultural events and tours for tourists in GI production areas contribute to increasing awareness of the role of GIs in PG production.

> "Es ist wichtig, dass sich die Erzeuger und Erzeugerinnen von Produkten mit geografischer Herkunftsangaben bewusst sind, dass ihre produktiven Handlungen auch zu positiven externen Effekten führen, die als öffentliche Güter wahrgenommen werden können."

### *Recommendations to enhance the socioeconomic sustainability of the value chain and production process*

- *Using a collective and participatory approach.* A collective approach that involves actors in the value chain and local stakeholders plays a role in preventing discrimination by creating a sense of belonging and awareness. This can be more easily achieved when the value chain is organised in associations or consortia, where meetings and assemblies are coordinated by democratic decision-making processes (e.g. Phú Quô'c fish sauce).

- *Prevention of the concentration of economic and decision-making power.* Governance structure and management may have a role in preventing the concentration of decision-making processes and avoiding opportunistic mechanisms and advantages for a minority of actors. In the case of Comté cheese, whose value chain includes heterogeneous actors, complex governance structures facilitate cooperation and organised management of different levels of the supply chain. Here, representativeness in the value chain is ensured through a system of four colleges (groups) which represent different stakeholders (milk producers, cooperative cheese manufacturers, processors, ripeners and packers) in CIGC (Comité Interprofessionnel du Gruyère de Comté, the key entity in the governance of the Comté PDO). This enables farmers and non-farmers to cooperate and plan the management of their jobs. The CIGC ensures informational transparency.

- *Gender equality in the decision-making processes.* Gender equality must become an operating principle in the decision-making process as it further enhances the production system. Currently, only a few cases recognise the role of women in ensuring equal wages and conditions (e.g. Ternasco de Aragón). In most cases, women, although representing a high percentage of the workforce, are excluded from the decision-making processes.

- *Developing governance actions for the management of GI value chains and markets.* Actions that lead to the generation, communication and enhancement of PGs must be managed through coordinated governance between the actors in the value chain in collaboration with local stakeholders to increase the local spillover impacts (e.g. Comté cheese).

- *Developing governance actions to create networks with private and public institutions.* Strengthening relations between the value chain and local institutions enables local policymakers to define appropriate legislative measures and governance. This results in the enhancement of the GIs value chains and supporting PGs generation. Local administrators and decision-makers should support GI value chains through technical assistance, research and innovation funding. The creation of hubs offering a range of services to farmers (e.g. Sjenica sheep cheese) should also be supported.

### *Recommendations to enhance a sustainable use of natural resources*

- *Balancing technology and traditional practices to preserve natural resources, landscapes and biodiversity*. Although technological progress is the most effective method to improve the efficiency of a production system, it may endanger the environment and produce negative consequences. Therefore, it is crucial to adopt technologies that do not damage the environment or challenge the natural balance. Life cycle or sustainability assessments are useful tools for evaluating the possible negative environmental impacts.
- *Adopting extensive production systems in livestock and agriculture to maintain the labour force and respect the environment*. Extensive production systems respect biodiversity, ecosystem sustainability and the existing landscape. In addition, these production systems use skilled labour in traditional production processes. Good practices imply low use of herbicides or chemical fertilisers, which supports the biodiversity of flora and the preservation of indigenous seeds and breeds. (e.g. Buon Ma Thuot coffee). This ensures the conservation of the existing landscape and biodiversity in areas where GI animal-based value chains occur (e.g. Ternasco de Aragón and Sobresada de Mallorca).

**Parmigiano Reggiano PDO hard cheese, Italy © Creative Commons.**

- *Adopting carbon footprint control and management*. Good practices for sustainable production methods entail lower energy use, resulting in enabling lower $CO_2$ emissions through the reduction of fertilisers, diesel for cultivation, and electricity for storage (e.g. Opperdoezer Ronde potatoes). Moreover, the shorter transportation distance travelled by raw materials from the area of origin to the point of sale decrease the emissions resulting from transportation. Animal dietary composition also affects $CO_2$ emissions. Healthy diets increase cattle lifetime, which lessens the 'carbon deadweight' of unproductive heifers and cull cows. In addition, sustainable forage implies less fertiliser and fuel for field operations than the amount required by silage maize.

> "It is important that geographical indication producers are aware that their productive actions also result in positive externalities that can be perceived as public goods."

- *Developing research systems for monitoring sustainability issues*. The sustainable use of natural resources requires research supported by research networks comprised of universities and public and private institutions to analyse and monitor environmental sustainability and search for potential innovations. An example is the development of research projects to manage grassland biodiversity or national programmes to preserve and promote breeds (e.g. Comté Cheese).
- *Communicating the benefits of environmental public goods to citizens*. Citizen information is required to increase awareness of the positive impacts of GIs within the territory. This allows for greater integration between the value chain and citizens who enjoy positive environmental externalities.

**Extensive farming in F.lli Brugnoli Farm, Bardi, Parma, Italy.**

## Clear governance strategies are essential

The GI codified rules are inspired by traditional production practices that strive to guarantee the required quality. In addition, these rules often foster the generation of PGs that respond to the cultural, socioeconomic and environmental priorities of communities.

Case studies from the Strength2food EU project show that generation of PGs requires both an internal and external intervention. The former intervention implies governance strategies for GI territorial systems and value chains that can improve the PGs production. The latter intervention requires consumers and other stakeholder communication strategies to raise awareness regarding PG generation. These interventions will ultimately increase the social value of GIs.

Consequently, it is important that GI producers are aware that their productive actions also result in positive externalities that can be perceived as PGs. This would reinforce the concept of rural development envisioned by Regulation 1151/2012 and contribute to the community agricultural policy's objective towards sustainability. However, this result cannot be assumed to occur without effort, as it requires a precise strategy and a willingness by producers for implementation. In this respect, GI producers could find support from local authorities in implementing territorial policies and from research measuring the sustainability effects of their actions.


**Doi Chaang Coffee, Thailand. © Creative Commons.**


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## Further Reading


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# Summary

## Geographical Indications and Public Good Relationships: Evidence and Policy Implications

In the European context, geographical indications (GIs) are tools that contribute to the achievement of rural development policy objectives. In this article, we propose that GI value chains produce positive environmental, social and economic benefits, defined as Public Goods (PGs), resulting from the rules defined in the Code of Specifications (CoS). This article reports the main results of the Strength2food H2020 project, designed to assessing the impact of GIs (through their CoSs) on agri-food system sustainability. Specifically, this report highlights that GI CoSs may generate PGs through the rules codified in CoSs presented as good practices in the production of PGs for other GI systems. Some final recommendations are proposed from the analysis of those good practices which contribute to the generation of PGs and, consequently, to the improvement of a sustainable rural development process. Case studies analysed show that generation of PGs requires both an internal and external intervention. The former intervention implies governance strategies for GI territorial systems and value chains that can improve the production of PGs. The latter intervention entails consumers and other stakeholder communication strategies to raise awareness regarding PG generation. These interventions will ultimately increase the social value of GIs.

## Liens entre indications géographiques et biens d'intérêt public : données probantes et implications pour l'action publique

Dans le contexte européen, les indications géographiques (IG) sont des outils qui contribuent à la réalisation des objectifs de la politique de développement rural. Dans cet article, nous suggérons que les chaînes de valeur des IG apportent, du fait des règles définies dans le Cahier des charges (CdC), des avantages environnementaux, sociaux et économiques positifs, définis comme des biens d'intérêt public (BP). Cet article rapporte les principaux résultats du projet Strength2food H2020, conçu pour évaluer l'impact des IG (au travers de leurs CdC) sur la durabilité des systèmes agroalimentaires. Plus précisément, ce rapport souligne que les CdC des IG peuvent générer des BP à travers les règles codifiées dans les CdC présentées comme des bonnes pratiques pour la production de BP, transposables à d'autres systèmes d'IG. Quelques recommandations finales sont proposées à partir de l'analyse de ces bonnes pratiques qui contribuent à la production de BP et, par conséquent, à l'amélioration d'un processus de développement rural durable. Les études de cas analysées montrent que la production de BP nécessite à la fois une intervention interne et externe. Le premier type d'intervention implique des stratégies de gouvernance pour les systèmes territoriaux et les chaînes de valeur des IG qui peuvent améliorer la production de BP. Le second type demande d'autres stratégies de communication vers les consommateurs et d'autres parties prenantes pour sensibiliser à la production de BP. Ces interventions augmenteront à terme la valeur sociale des IG.

## Geografische Herkunftsangaben und Beziehungen zum Gemeinwohl: Erkenntnisse und politische Implikationen

Im europäischen Kontext sind geografische Herkunftsangaben Instrumente, die zur Zielerreichung in der ländlichen Entwicklungspolitik beitragen. In diesem Artikel zeigen wir, dass die Wertschöpfungsketten von Produkten mit geografischen Herkunftsangaben positive ökologische, soziale und wirtschaftliche Vorteile mit sich bringen. Sie werden als öffentliche Güter definiert, die sich aus den Qualitätsregelungen im „Code of Specifications" (CoS) ergeben. In diesem Artikel werden die wichtigsten Ergebnisse des H2020-Projekts „Strength2food" vorgestellt. Darin werden die Auswirkungen von Produkten mit geografischen Herkunftsangaben auf die Nachhaltigkeit von Agrar- und Lebensmittelsystemen bewertet. Insbesondere wird in diesem Bericht hervorgehoben, dass die CoS zu Produkten mit geografischen Herkunftsangaben als Good-Practice-Beispiele für die Erzeugung von anderen öffentlichen Gütern im Hinblick auf Herkunftsangaben dienen können. Auf der Grundlage der Analyse dieser bewährten Verfahren zur Einführung von geografischen Herkunftsangaben auf Produkten und damit zur Verbesserung eines nachhaltigen ländlichen Entwicklungsprozesses werden abschließend einige Empfehlungen ausgesprochen. Die Fallstudien zeigen, dass die Schaffung von geografischen Herkunftsangaben auf Produkten sowohl eine interne als auch eine externe Intervention erfordert. Die erste Intervention impliziert Governance-Strategien für Gebietsabgrenzungen und Wertschöpfungsketten, die die Produktion von Produkten mit geografischen Herkunftsangaben verbessern können. Die zweite Intervention umfasst Kommunikationsstrategien für Verbraucher und Verbraucherinnen und andere Interessengruppen, um das Bewusstsein für die Erzeugung von Produkten mit geografischen Herkunftsangaben zu schärfen. Diese Interventionen werden letztendlich den sozialen Wert der Produkte erhöhen.