

The Effects of Protecting Geographical Indications

Ways and Means of their Evaluation

Eidgenössisches Institut für Geistiges Eigentum
Institut Fédéral de la Propriété Intellectuelle
Istituto Federale della Proprietà Intellettuale
Swiss Federal Institute of Intellectual Property

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Foreword

What is the value of know-how, which has been developed over many decades in a specific region? And what is the value of a corresponding geographical indication on a product coming from this region? These are questions, which may at first sound simple but which are not so easy to answer, regardless of whether it is a question concerning rye bread from the canton of Valais, Parmigiano Reggiano or rum from Jamaica.

When analysing geographical indications for their economic, social and ecological impact, we are faced with two kinds of challenges. Firstly, it is difficult to obtain suitable data; and secondly, clear methodological parameters are necessary for the analysis of the data collected. Only in this way can we ensure that reliable comparisons can be carried out over time or between different products in various countries.

To this effect, we commissioned two researchers from the University of Florence to develop a scientific methodology for the evaluation of geographical indications based on current knowledge. Their methodology is formulated in such a way so as to be applicable to diverse situations, so that consequently, the impact of the introduction of geographical indications in a country or region can be documented and compared. As a result, the conclusions of such an analysis will allow producers to take decisions concerning their strategies, as well as allow the public sector to initiate or adapt measures at the macro level.

This methodology was created as part of an international cooperation project between our Institute and Jamaica. The aim of this project was to establish, together with the Jamaican authorities and the producers of rum, jerk (typical Jamaican mixed spices) and Blue Mountain Coffee, the legislative foundation for a geographical indications register, as well as to support producer groups in fulfilling the necessary conditions for registration.

I would like to express my sincere thanks to the authors of the methodology, Professor Giovanni Belletti and Professor Andrea Marescotti from the University of Florence. Many thanks also to Sophie Reviron and Marguerite Paus from AGRIDEA, who with their valuable comments and a survey of existing case studies, have also contributed to the success of this work.

Roland Grossenbacher
Director General of the Swiss Federal Institute of Intellectual Property

Berne, July 2011

Vorwort

Welchen Wert hat das Know-how, das über Jahrzehnte in einer bestimmten Region entwickelt worden ist? Und welchen Wert hat eine entsprechende geografische Angabe auf einem dort entwickelten Produkt? Dies sind Fragen, die vielleicht einfach klingen, die aber nicht ganz einfach zu beantworten sind. Dabei spielt es keine Rolle, ob es sich um Walliser Roggenbrot, Parmigiano Reggiano oder jamaikanischen Rum handelt.

Bei einer Analyse von geografischen Angaben bezüglich ihrer ökonomischen, sozialen und ökologischen Auswirkungen stellen sich zweierlei Herausforderungen: Erstens ist es schwierig, an geeignete Daten heranzukommen. Zweitens braucht es klare methodologische Vorgaben, nach denen die gesammelten Daten ausgewertet werden müssen. Nur so ist sichergestellt, dass zuverlässige Vergleiche über die Zeit oder von unterschiedlichen Produkten in verschiedenen Ländern machbar sind.

Um genau dies zu ermöglichen haben wir zwei Forscher der Universität Florenz beauftragt, eine auf dem Stand des vorhandenen Wissens aufbauende Methodologie zur Evaluation von geografischen Angaben zu verfassen. Besonderes Merkmal dieser Methodologie ist es, so formuliert zu sein, dass sie auf unterschiedlichste Situationen anwendbar ist. Somit können die Auswirkungen der Einführung von geografischen Angaben in einem Land oder einer Region dokumentiert und verglichen werden. Die Resultate dienen schliesslich den Produzenten dazu, Entscheidungen über ihre Strategien zu treffen, wie auch dem öffentlichen Sektor, um Massnahmen auf der Makroebene zu ergreifen oder anzupassen.

Entstanden ist diese Methodologie im Rahmen eines internationalen Zusammenarbeitsprojektes unseres Instituts mit Jamaika. Ziel dieses Projektes war es, zusammen mit den jamaikanischen Behörden und den Produzenten von Rum, Jerk (einer typisch jamaikanischen Gewürzmischung) und Blue Mountain Coffee die gesetzgeberischen Grundlagen für ein Register von geografischen Angaben zu etablieren sowie die Produzenten darin zu unterstützen, die notwendigen Voraussetzungen für die Registrierung zu erfüllen.

Den Verfassern der vorliegenden Methodologie, Professor Giovanni Belletti und Professor Andrea Marescotti von der Universität Florenz, spreche ich meinen herzlichen Dank aus. Besten Dank auch an Sophie Révion und Marguerite Paus von AGRIDEA, die mit wertvollen Kommentaren und einer Übersicht über bereits bestehende Fallstudien zum Gelingen dieser Arbeit beigetragen haben.

Roland Grossenbacher
Direktor des Eidgenössischen Instituts für Geistiges Eigentum

Bern, im Juli 2011

Avant-propos

Quelle est la valeur d'un savoir-faire développé dans une région pendant des décennies ? Et quelle est la valeur d'une indication géographique apposée sur un produit originaire de cette région et résultant de ce savoir-faire ? Il n'est pas aisé d'apporter des réponses à ces questions simples en apparence, qui se posent aussi bien pour le Pain de seigle valaisan que pour le Parmigiano Reggiano ou encore le rhum de Jamaïque.

L'analyse des effets économiques, sociaux et environnementaux de la protection des indications géographiques pose deux défis : tout d'abord, la difficulté de se procurer des données appropriées; ensuite, la formulation d'objectifs méthodologiques clairs permettant l'exploitation des données récoltées. C'est seulement ainsi qu'il est possible d'établir des comparaisons dans la durée ou entre différents produits dans plusieurs pays.

Nous avons mandaté deux chercheurs de l'Université de Florence dans le but, précisément, de développer, sur la base des connaissances actuelles, une méthodologie d'évaluation des effets des indications géographiques. Cette méthodologie est formulée de manière à pouvoir être appliquée à des situations très diverses. Il est ainsi possible de mettre en lumière les effets produits par la reconnaissance d'indications géographiques dans plusieurs pays ou régions et de les comparer. Les conclusions d'une telle analyse d'impact peuvent permettre aux producteurs de prendre des décisions d'ordre stratégique et aux pouvoirs publics d'initier ou d'adapter des mesures-cadres.

Cette méthodologie a été développée dans le cadre d'un projet de coopération internationale de notre Institut avec la Jamaïque. Ce projet avait pour objectif d'élaborer, en collaboration avec les autorités jamaïcaines et les producteurs de rhum, de jerk (un mélange d'épices typique de Jamaïque) et de café Blue Mountain, les bases juridiques rendant possible la création d'un registre des indications géographiques et d'aider les producteurs à remplir les critères d'enregistrement d'une indication géographique dans ce registre.

J'adresse mes sincères remerciements aux professeurs Giovanni Belletti et Andrea Marescotti de l'Université de Florence, auteurs de la présente méthodologie, de même qu'à Mesdames Sophie Révion et Marguerite Paus d'AGRIDEA dont les commentaires et l'aperçu des études de cas existantes se sont avérés très précieux.

Roland Grossenbacher
Directeur de l'Institut Fédéral de la Propriété Intellectuelle

Berne, juillet 2011

Introduzione

Che valore ha il know-how sviluppato nel corso dei secoli in una determinata regione? E che valore ha un'indicazione geografica apposta su un prodotto locale? A queste domande, apparentemente scontate, non è sempre facile dare risposta, che si tratti di pane di segale vallesano, parmigiano reggiano o rum giamaicano.

L'analisi delle conseguenze economiche, sociali ed ecologiche delle indicazioni geografiche presenta due tipi di difficoltà: anzitutto è difficile accedere a informazioni rilevanti; in secondo luogo, i dati raccolti devono essere analizzati secondo direttive metodologiche definite. Solo così è possibile procedere a un confronto attendibile su base periodica o tra vari prodotti in diversi paesi.

A questo scopo, abbiamo incaricato due ricercatori dell'Università di Firenze di elaborare una metodologia di valutazione delle indicazioni geografiche basata sulle conoscenze attualmente disponibili. La peculiarità di questa metodologia, nei termini in cui viene formulata, è la sua vasta applicabilità. Essa consente, invero, di documentare e confrontare gli effetti legati all'introduzione delle indicazioni geografiche in un paese o in una regione. I dati raccolti sono utili ai produttori per decidere in merito alle strategie da adottare, come pure al settore pubblico, per definire o adeguare misure a livello più ampio.

La presente metodologia è stata messa a punto nell'ambito di un progetto di cooperazione internazionale che ha visto coinvolti il nostro Istituto e la Giamaica. Il progetto, portato avanti in collaborazione con le autorità giamaicane e i produttori di rum, jerk (una tipica miscela di spezie giamaicana) e Blue Mountain Coffee, era finalizzato a definire le basi legali per la creazione di un registro di indicazioni geografiche e aiutare i produttori locali a soddisfare le condizioni necessarie alla registrazione.

Porgo i miei più sinceri ringraziamenti ai professori Giovanni Belletti e Andrea Marescotti dell'Università di Firenze, autori della presente metodologia. Un sentito ringraziamento va anche a Sophie Révillon e Marguerite Paus di AGRIDEA che, con i loro preziosi commenti e con una panoramica dei casi di studio esistenti, hanno contribuito al successo di questa iniziativa.

Roland Grossenbacher
Direttore dell'Istituto Federale della Proprietà Intellettuale

Berna, luglio 2011

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Why evaluate the effects of the protection of GIs?

Angela Deppeler, Hansueli Stamm, Erik Thévenod-Mottet

The concept of Geographical Indications

Geographical indications (GIs) have appeared quite recently in the landscape of intellectual property rights (IPRs) in comparison with more classical concepts such as trademarks, patents and copyright. While various terms and definitions pre-existed in some national and international legal frameworks, the definition of GIs provided by the World Trade Organization's Trade Related Intellectual Property Rights (TRIPS) Agreement, adopted in 1994, has become the broader reference. In Article 22, it states that GIs are:

“...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.”

The economic rationale for GIs is the correction of a market failure that has been caused by two characteristics of GIs. The first one is the problem of asymmetric information between sellers and buyers. If it is uncertain that the quality of product A is better than that of good B, the consumer will not be willing to pay a higher price for product A. The second reason concerning why there will be no functioning market with respect to GIs is the fact that a GI is – without any legal remedy – a public good. Anybody can use this regional brand and its reputation as a free rider, even though they may have no affiliation to either the corresponding region or its typical goods. However, with the introduction of the possibility of protecting GIs as intellectual property, both problems are solved. A consumer can be certain that the product branded with the GI will incorporate the expected quality and that he or she can rely on the fact that the product stems from the region indicated on the labelling, with the quality and origin being inextricably associated.

Notwithstanding the fact that the TRIPS Agreement does not explicitly address such issues, it is generally recognised that GIs do not share exactly the same meaning of “property” as those of classical IPRs. This is due to the fact that a GI generally has no single legal owner who would have the same rights as to a trademark or patent, i.e. the capacity to license the use or to not renew protection, for example. On the one hand, most of the GIs are geographical names, and these objects are usually considered to be administered by the state; on the other hand, the group of legitimate users of a GI should generally be delimited according to the GI product's quality, and thus would include anyone able to achieve this quality in the relevant geographical area. The recognition of GIs (considered as the specific relation associating a denomination and

a product) normally depends on an assessment of their intrinsic value through an arbitration process managed by the state, which explains their particular legal and institutional status (Hermitte, 2001). In this context, the role of the state concerning the recognition and management of GIs is still being debated. These debates are also nourished by the fact that, in addition to the above-mentioned economic problems and remedies, there are many politically-motivated additional effects that are often associated with the introduction of GIs as being a legal tool to serve particular objectives of public policies (as an example of such a grid of interpretation, see Larson, 2007).

The various ways of implementing the legal concept of GIs, as provided by the TRIPS Agreement, can be ranked into two archetypal categories: permissive systems and prescriptive systems (Stern & Léger, 2000). Under permissive systems, GIs are characterized by a very light formalization (or even no *ex ante* recognition), and by a very rough definition of the products concerned, if at all. A permissive approach reflects the idea that the state should not play a particular role regarding GIs, that is to say no further role other than that regarding trademarks, and, as a consequence, that GIs are not perceived as tools for public policies. Considering GIs as a neutral IPR, permissive systems do not provide any particular assessment of criteria related to methods of production, biological resources, etc., as well as no mechanism of state arbitration amongst producers. But this does not prevent stakeholders from gathering and engaging on private ground in a collective initiative, which could have all the features of the most mature GI systems except for the legal basis.

On the contrary, under prescriptive systems, the legal protection of GIs is generally linked to a very detailed and narrow definition of the products concerned in relation to specific concepts, which have been developed within the framework of public policies (e. g. legal recognition of the associations of GI producers, specialized state agencies, etc.). The prescriptive approach is generally based on a legal process of registration, which is an incentive for the producers concerned as it is the pre-requisite for benefiting from the appropriate GI policies, as it represents the recognition of a particular and valuable status. This is the model of the *appellation d'origine* developed in France and other European countries. The collective mandatory prescriptions (codes of practice) conditioning the use of these recognised GIs may be a powerful tool in directing and ensuring some particular effects from the growth and/or manufacture of GI products (Thévenod-Mottet, 2010). The codes of practices for European Protected Designations of Origin (PDO) and Protected Geographical Indications (PGI) products are the result of a collective and continuous process¹ associating all the kinds of firms involved in the GI supply-chain, and they increasingly reflect concerns about methods of production in relation to traditional, heritage and environmental values. In fact, in European countries, the policy arguments in favour of GIs have expanded over time to include: (1) the protection of consumers from deception, and the protection of producers from unfair

¹ In the EU system, a GI code of practice may be revised, either to take some technological or agricultural change into account (i.e. to accept, to reject or to adapt technological innovations) or to adopt more restrictive requirements in order to reinforce the specific characteristics of the GI product.

competition in relation to unlawful use of the designation for products not originating from the designated area or for products not having the expected quality; (2) the management of the quantities supplied by the agro-food supply-chains; (3) endogenous local development and social cohesion; and (4) biodiversity and cultural heritage protection (Sylvander et al., 2006). All these arguments were found in the preamble of the EU Regulation No 2081/92², and they are nowadays used in international debates. It also corresponds to the Common Agricultural Policy (CAP) of the EU or the agricultural policy of Switzerland, where the function of agriculture (and therefore the support of the government for the agricultural sector) encompasses more than only production of ali-ments. More precisely, the European regulation assigns the following goals to GIs:

- to preserve the economic value produced by the European agro-food sector;
- to encourage the diversification of agricultural production so as to achieve a better balance between supply and demand in the markets;
- to promote products which allow for improving the income of farmers and for retaining the rural populations in less-favoured or remote areas;
- to supply high quality products to consumers in cases where this quality is linked to the geographical origin of the products;
- to provide clear and succinct information on the geographical origin of the products in order to help consumers in making their choice.

It is not the task of this publication to qualify how all these targets, beyond the original economic rationale, are justified. But if such goals are set, then the achievement of these goals has to be assessed. We assume that the present publication will help to perform this evaluation task in a standardized and comparable way, at a time when the world landscape of GIs is becoming very complex due to the increasing number of recognised GIs and to the related legal frameworks, public policies and debates.

Development of GIs and GIs in developing economies

As mentioned above, one of the rationales for the official recognition of GIs is to reduce the asymmetry of information between producers and consumers. Considering the huge growth in the number of registered GIs in recent years – growth that will continue as southern countries develop and implement their own systems – and the heterogeneity among GI standards and regulatory systems, this information objective may become more and more difficult to achieve. As an example, in the seven EU member States where most of the EU PDOs and PGIs are located, the number of registered GIs (with-

² Replaced in 2006 by the EU Reg. No 510/2006, which includes the same justifications in its preamble as previously.

out wines and spirits) was 500 in 2000 and has increased to more than 870 in 2011³. A further example is the registration of 120 GIs in India between 2003 and mid-2010, of which 80 are for handicraft (non-agro food) products⁴.

The growing interest in GIs in non-European countries is mainly linked to the opportunities offered by GIs for local processes of social and economic development. This occurs in a context where the concept of GIs, amongst others, appears to be suitable to address current public concerns such as the preservation of cultural heritage, landscapes and biodiversity, the consumer trust in the food system, the promotion of sustainable agricultural practices and the protection and remuneration of traditional knowledge and genetic resources. Either through national strategies to ensure WTO TRIPS compliance or through particular development activities, GI legal frameworks and their implementation are becoming ever denser at global level.

The GI status may be attractive either for protecting the economic interests of producers of well-known and largely exported regional products from imitations and usurpations (e.g. Basmati, Blue Mountain or Tequila) or for facilitating the development of such an origin-based reputation through the formatting of the GI as a quality standard (see Galtier et al, 2008, on the case of Pico Duarte coffee in Dominican Republic). The first incentive applies to GIs that encapsulate long-established economic values recognized in remote markets. These were generally the first GIs to be registered, with a focus on the processing methods and in accordance with the interests of processors and traders. The second incentive often corresponds with territorial development initiatives: integrating farmers and other actors through multidimensional projects that are generally more favourable to environmental and cultural concerns. That said, as GIs registered in response to the first incentive have evolved over time, they have often moved towards greater incorporation of heritage and environmental values. This may occur either through modification of the codes of practice or through the initiative of producers inside the system. Such enlargements of the scope of the definition of GI products combine, to some extent, a reflection on the product's quality and characteristics and an interpretation of the externalities deriving from the system of production.

A common denominator, however, seems to be that the differentiating of products can be a way of enhancing economic results. In developing economies, in particular, there is pressure to produce higher value goods that can be marketed as specialised or niche products. In addition, with global competition, many historically famous geographical indications' regions are feeling the challenge of the misuse of geographical names by producers and retailers outside of the original area of production.

In addition, the collective nature of GIs can be well adapted to traditional organisational structures in developing countries (Das, 2006). However, specific difficulties may arise

³ Sources : Barjolle & Sylvander (2000), DOOR (database on the PDOs and PGIs in the EU, available at <http://ec.europa.eu/agriculture/quality/door/> and consulted in June 2011).

⁴ Source: Gautam & Bahl (2010).

in countries that newly adapt a GI protection scheme. To summarise them in a non-exhaustive way, these lie in the lack of technical knowledge concerning the implementation of GI protection in the private as well as in the public sector, the need for an institutional framework to be put in place, as well as the need for collaboration among actors of different sizes, functions and therefore interests (see e.g. Roussel & Asfaw, 2010). While the latter problem is not specific to developing economies in general, it may be of importance that “role models” and experienced facilitators are scarce.

In this situation, the role of well-known and already established origin products is of particular importance (Evaluation of the Swiss-Jamaican GI project, unpublished). Such a production sector, already being organised, could act as an important partner for the state, especially when facing misuse of their product’s geographical name. If the government has corresponding interests for the introduction of a GI framework, then a more successful outcome is likely. The interests of the state can be economic (correction of the market failures as mentioned), as well as political e.g. the preservation of national heritage or biodiversity. An important role of the state, in line with these aims, is to seek an effective collaboration between state agencies and the private sector, so that the GI framework can be functional. The process of establishing a functioning GI framework is a learning process, as new actors could be brought together (e.g. intellectual property and agriculture).

Another aspect is that the setting up of a GI framework takes place in a country’s pre-established socio-economic environment. Therefore, interest groups, which are already strong, can use their existing power when it comes to the definition of the specific GI region, as well as the definition of quality standards. Particularly in countries where vulnerable groups might have great difficulty in participating in national processes, the establishment of a GI registration could create difficulties for some (small) producers of a genuine GI product. It is a question of the legal framework, the practical implementation process, and, as mentioned, the socio-cultural structures, as to how far small producers are included in the definition of a protected GI and how they will be able to benefit from it. Much depends, again, on the public sector’s decision regarding whether to choose a purely economic perspective, how long or short term it may be, or a perspective of the preservation of the cultural, social and natural heritage. As a consequence, the effects of an introduction of GIs need to be measured against the expectations that determine the choice of the policy.

Expected effects

There are two levels on which an evaluation of the effects of GIs can provide valuable information. At the general economic level, the question arises as to whether GIs could be a way of remunerating the maintenance of public goods through the market and achieving all the other goals associated with GIs. At the individual producer level, the question is whether they can be rewarded for doing this and therefore strengthen their market power. In addition to this basic economic rationale, GIs seem to be spots of

political stakes thanks to (or because of) their collective nature and their regulation by the state. More precisely, some particular effects are expected for GIs because:

- laws on GIs are often adopted during situations of crisis or paradigmatic changes (such as the jump from planned to liberalized agriculture), and this is often (if not always) the same for initiatives to achieve an official recognition of GIs, as they are launched in relation to various situations of crisis in order to solve particular problems;
- GIs (i.e. a designation attached to a specific product) have normally pre-existed for generations, and their recognition and protection correspond to particular needs that are raised at a certain time;
- the involvement of public authorities in those processes of definition, recognition and protection is generally high, as GIs are perceived as public goods; and
- in prescriptive systems, the use of the GI is conditioned to collective requirements resulting from discussions amongst producers, which necessarily and simultaneously address strategic orientations for the whole GI supply-chain.

Endowing GIs with many different kinds of expectations, as may be explained by the circumstances listed above, is not inherent to the legal definition of GIs. Thus, this issue is still being disputed between two opposite visions: the first being the legal and institutional “normalization” of GIs as IPRs; the other being the maintenance of a status of exception for GIs as a hybrid concept. On a global scale, questioning the effects of GI protection requires consideration of the question concerning the very nature of GIs. Either this is a right focused on the product itself through a comprehensive definition of materials, methods, results etc., or it is a right focused on producers through specification of the group of authorized users (possibly only according to the delimitation of a geographical area which would more or less correspond to an indication of source). In other words, if GIs are considered only and merely as an intellectual property right, there should be no particular rationale for requiring all of them to have positive impacts on socially desirable values because there is no such requirement for other IPRs.

Nevertheless, various goals are explicitly assigned to GIs in prescriptive systems and these determine the framework, conditions and purposes of an evaluation of the effects of the protection of GIs. The intensiveness and preciseness of the expected effects are generally closely related to the content of the code of practices. When applying for the registration of a PDO-like GI, producers should normally formalize a standard for the product concerned — in terms of requirements regarding materials, methods and final result, which inevitably results in the reduction of both pre-existing and potential diversity in materials, methods and outcomes (for examples, see Bérard and Marchenay, 2004). The aim of this reduction is to ensure a specific quality of the GI product in a collective and constant way. Thus, the nature of the effects of the registration of the GI will depend on the choices made in standardizing the product. The scope and intensity

of these effects will depend on the share of producers who will comply with the code of practices, as well as on the relative (economic, social, etc.) importance of the GI supply-chain in the geographical area concerned. The effects of the GI registration at the level of the national economy will also depend on the share of producers who stabilize or improve their market share versus possible losses related to those who might opt out of the GI protection scheme.

Assessing the effects of GI protection

As a consequence of this uncertain status for GIs – between the economic rationale that justifies their legal protection, and their potential role for public and private stakeholders – assessing the effects of GI protection is a problematic exercise influenced by the scope of goals assigned to GIs. The difficulty does not only consist of identifying the explicit aims set in legal frameworks and official documents, but also of completing the picture with much less explicitly expressed aims, and of opening the perspective in order to reach the relevant systematic pattern. As an example, the codification of a GI product has effects on all three levels of biodiversity (genetic/intraspecific, species / interspecific and ecosystemic), as well as on both domestic and wild biological resources. These effects derive as much from implicit provisions and outright omissions as they do from explicit specifications (Thévenod-Mottet, 2010). Moreover, the relative territorial importance of a GI system must also be taken into account.

GIs cannot only have positive effects, however. As an example, the positive impact of a GI on the preservation of one or even several plant or animal varieties may be accompanied by negative effects on species and ecosystemic biodiversity. Furthermore, the economic success of a GI product may reduce the diversity of agricultural and food production in the relevant territory with related impacts on local biodiversity. Evaluating the effects of a GI at a territorial level would require a baseline assessment of all the aspects that are to be considered prior to registration of the product's specification, followed by regular monitoring thereafter. But even this way would have to take into account the fact that the GI registration is not something new that has been suddenly introduced into a closed system, but that it is something that stems from the local context. In other words, it is likely that the moment of registration of a GI is not the very moment when the effects associated with the GI concept would appear. Even without entering into the debates on the methods, there is no doubt that such a global perspective would imply very high costs, or at least a very strong political will (in particular, for the collection and isolation of relevant statistical data). Such evaluation is far from the norm, either in public policies or scientific research, whether on single GI designations or on all GI products within the same GI standard. This is the case in the most mature

GI policy frameworks⁵, suggesting that the establishment of comprehensive assessment mechanisms at international level is far from likely at the current time.

As the existing models of GI frameworks in developing and emerging economies are relatively new, the evaluation of registered GIs in those countries is, as a consequence, of great actuality. The proposed method of participative research in this volume could be of particular interest to developing economies because of potential disparities in knowledge, power and finances between different groups that need to define together the respective territory and, if necessary, the code of practice. This requires comparable data, especially from countries with similar situations, which would allow for a careful selection of instruments at policy level.

Evaluating for redefining?

Comparing national legislations, the definition of GIs is currently characterised by a degree of heterogeneity that does not exist for other IPRs. Even among registered GIs within a common regulatory system such as the European one, there are at least two sources of heterogeneity. The first is based on incentives for seeking legal protection, leaving more or less room for associated goals; and the second is based on collective and state arbitration of each GI product's specifications.

The integration of associated goals within GI standards will depend on how the international system evolves; either towards a more explicit and prescriptive global standard, or towards a permissive system that treats GIs as little more than indications of source. Under the first scenario, it is likely that the GI standard would echo international debates over sustainable development, traditional knowledge, climatic change, biodiversity preservation, etc., by incorporating these issues in its requirements. Under the second scenario, this incorporation would depend on the initiative of private and collective stakeholders and would probably be pursued through alternative standards such as the organic one. At the WTO and WIPO, debates over GIs currently focus on technical legal points and the scope of protection. These negotiations may result in an international legal standard for GIs that includes a register of all specifically protected GIs. Nevertheless, GIs cannot be considered a genuine international standard if there is no common understanding of what is behind the denomination. Is it a mere trademark and indicator of source? Or does it say something about sensory qualities, tradition, sustainability, biodiversity, etc.? GIs from two countries implementing the TRIPS definition in very different ways could potentially benefit from the same international legal protection of the IPR aspects of GI designation, but how would consumers interpret the meaning and status of a sign with such different content according to different countries? Consequently, the globalization of the concept also means that a redefinition might have to be negotiated with countries that newly adapt the system and might have

⁵ One exception is the study financed by the European Commission (London Economics, 2008) on the evaluation of the PDOs and PGIs policy, but this study was very unsatisfactory according to the quality assessment made by the EC itself, which is published together with the study on internet.

their own concerns. Evaluations, particularly in these countries, therefore seem crucial if a new global definition of GIs is to emerge and be accepted by parties of multinational organisations.

No matter which goals are expected to be achieved with the legal implementation of GIs, be it the basic economic ones or additional political, social ecological ones, there is still a need for evaluations as to the degree these goals have been achieved. The introduction and the maintenance of a GI system is costly, not only for the state which supervises the whole process, but also for the farmers and processors involved in the definition of, and thus being bound to, the code of practice. So on the one hand, farmers and processors would like to know whether it will be worth participating in a GI project, or at least whether it was a profitable decision to take part, or what adaptations could be made to the system as it stands. On the other hand, the state is interested in the overall economic outcome, taking into account the given aims defined in advance, and weighting them against the ex post observed negative outcomes.

The purpose of this publication is to provide a standardized methodology for assessing these positive and negative effects caused by the introduction of a GI system. There have been many attempts to evaluate the outcomes of GI systems of which an overview will be given in the following section. One of the main shortcomings of all these approaches is a relatively poor comparability of the different project outcomes. Due to the fact that the methodology presented here has a modular structure, it offers the possibility of comparing the effects between GI projects protecting different products in different regions and countries. This expected comparability, and some benchmarks which can be introduced after a certain amount of experience with the application of the methodology, will be a good basis for further discussions about the future of GIs, both at international and national level.

References

- Barjolle D. and Sylvander B. (2000) PDO and PGI Products: Market, Supply-Chains and Institutions - Protected Designations of Origin and Protected Geographical Indications in Europe: Regulation or Policy?, FAIR – CT 95 – 0306, Final Report. Available at <http://www.origin-food.org/pdf/pdo-pgi.pdf>
- Bérard, L. and Marchenay, P. (2004) *Les produits de terroir, entre cultures et règlements*. CNRS Éditions, Paris
- Das, K. (2006) "International Protection of Geographical Indications with Special Reference to Darjeeling Tea", *The Journal of World Intellectual Property* Vol. 9 No.5, pp 459-495
- Galtier, F., Belletti, G. and Marescotti, A. (2008) "Are Geographical Indications a way to "decommodify" the coffee market?", Communication presented at the 12th Con-

- gress of the European Association of Agricultural Economists EAAE, Ghent (Belgium), 26–29 August. Available at <http://purl.umn.edu/43834>
- Gautam K. and Bahl N. (2010) Geographical Indications of India, Socio-Economic and Development Issues, AIACA Policy Brief, October 2010. Available at <http://www.aiacaonline.org/pdf/policy-briefs-geographical-indications-india-socio-economic-development-issues.pdf>
- Hermitte, M.-A. (2001) 'Les appellations d'origine dans la genèse des droits de la propriété intellectuelle', in P. Moity-Maïzi et al. (eds), *Systèmes agroalimentaires localisés, Études et Recherches sur les Systèmes Agraires et le Développement*, n°32, INRA-CIRAD-CNEARC, pp 195-206. Available at <http://cenj.ehess.fr/docannexe.php?id=243>
- Larson, J. (2007) *Relevance of Geographical Indications and Designations of Origin for the Sustainable use of Genetic Resources*, Global Facilitation Unit for Underutilized Species, Rome, Italy. Available at http://www.underutilized-species.org/Documents/PUBLICATIONS/gj_larson_lr.pdf
- London Economics (2008) *Evaluation of the CAP policy on protected designations of origin (PDO) and protected geographical indications (PGI), Final Report*, November 2008, 286 p. Available at <http://ec.europa.eu/agriculture/eval/reports/pdopgi/>
- Roussel, B. and Asfaw Z. (2010): Des IG pour préserver l'agro-biodiversité et la diversité culturelle des jardins d'Ethiopie, in *Indications géographiques : qualité des produits, environnement et cultures*, Savoirs communs No.9, Agence Française de Développement & Fonds Français pour l'Environnement Mondial (eds), p. 52. Available at <http://www.afd.fr/jahia/webdav/site/afd/shared/PUBLICATIONS/THEMATIQUES/savoirscommuns/09-Savoirs-communs.pdf>
- Stern, S. and Léger, S. (2000) 'Geographical indications, "What's in a name?"', AIDV/IWLA Bulletin, n°24, pp 2-13
- Sylvander, B., Allaire, G., Belletti, G., Marescotti, A., Barjolle, D., Thévenod-Mottet, E. and Tregear, A. (2006) 'Qualité, origine et globalisation: Justifications générales et contextes nationaux, le cas des indications géographiques', *Revue Canadienne Des Sciences Régionales*, vol 29, pp 43-54
- Thévenod-Mottet, E. (2010) 'Geographical Indications and Biodiversity', in Lockie S. and Carpenter D. (eds) *Agriculture, Biodiversity and Markets*, Earthscan, London and Washington D.C., pp 201-212

Evaluating the effects of protecting Geographical Indications: scientific context and case studies

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1 Introduction

Recent research conducted in European countries has highlighted the ability of Geographical Indications (GIs) products to create economic value and to distribute a certain share of the price premium to the producers of the raw material in the rural area concerned (Barjolle et al., 2007; Desbois and Néfussi, 2007). Economic value is the driving power of development. However, most GIs have the potential to create positive social and environmental effects to the benefit of rural development. In order to assess this, it is crucial to develop reliable methods that compare the global performance (economic, social, and environmental) of GI supply chains with conventional supply chains.

Hence, encouraging GIs and their protection, as a means of promoting sustainable rural development, implies identifying the protected GIs' territorial effects. Thus, demonstrating both the concrete and probable effects is a methodological challenge to be addressed.

The following paper provides a comparison between the existing approaches in current research and aims at summarising the main lines in terms of the methodology and general results of corresponding studies.

2 Measuring impacts: a tricky exercise

Impacts are defined as being the positive and negative, intended and unintended, primary and secondary long-term effects. These effects can be economic, social, cultural, institutional, environmental, technological or of other types (OECD-DAC, 2002). In this paper, we define territorial impact as being the effect of the implementation of a GI system, or protection scheme, in the three dimensions of sustainable rural development (economic, social and environmental) on the territory concerned.

Assuming that territorialized food supply chains have territorial effects, leads to a methodological question: how to measure the supply chain's territorial impact? The impact assessment should enable the investigators to answer a question such as: "what would the situation be if no initiative had been taken and farmers had to rely on conventional patterns of development?" (Knickel and Renting, 2000).

Assessing territorial impact is a challenging exercise that needs:

- a clear research question (impact of what?, impact on what?)
- a reference point (comparisons) either diachronic (time series, before/after) and/or synchronic (cross section, with/without).

As far as GIs are concerned, it is very difficult to distinguish the impact of the supply chain itself (and the dynamic of its collective organisation) from the impact of a special

protection scheme (for instance, a PDO¹ protection) (Belletti and Marescotti, 2006). The chain of causality is difficult to establish, given that acquiring legal protection which attains a high economic performance, as well as building a strong collective organisation, are objectives that strengthen each other.

“Before/after” studies rarely measure impacts accurately. Baseline data (before the intervention) and end-line data (after the intervention) give facts about the development over time and describe what is factual for the supply chain (not what is counterfactual) (Leeuw and Vaessen, 2009). The differential observed by comparing before/after data is rarely caused by the intervention alone, since other factors and processes influence development, both in time and space (Leeuw and Vaessen, 2009). For example, in evaluating the impact of GI initiatives, we must control the influence of changing market conditions or agricultural policy.

The “with/without” approach aims at comparing the situation observed with “what would have happened in the absence of the intervention” (the without, or counterfactual). Such a comparison is challenging since it is not possible to observe how the situation would have been. It has to be constructed by the evaluator (Leeuw and Vaessen, 2009).

Randomisation of intervention is considered to be the best way to create an equivalent (other things being equal) (Duflo and Kremer, 2005; Leeuw and Vaessen, 2009). Random assignment to the participant and control group guarantees that the two groups will have similar average characteristics. Unfortunately, it is hardly possible to design such an experimental approach in the case of GIs’ territorial impact evaluation, since GIs are based on voluntary participation and since the evaluation concerns various territorial effects on a delimited territory. This leads to difficulties in identifying an area outside the GI geographical limits, all things being equal, and in quantifying spill-over effects.

However, a recent study made a significant methodological contribution to this approach. Jena and Grote (2010) designed a stratified random sampling and analysed the GI impact of Basmati rice producers in terms of income and welfare. The study clearly identified a counterfactual element (non-GI rice producers in the same area) and paves the way for further econometrics research (see below for the results of the study).

In parallel to the comparative design, a relevant set of indicators must be selected. In technical terms, indicators are statistical variables which transform data into useful information (OECD, 1994). Regarding the selection of indicators, the challenge is to choose a set of indicators which best reflects the holistic assessment that is needed

¹ PDO means Protected Designation of Origin. It corresponds to the legal regime of *sui generis* protection as implemented in the European Union for agricultural products and foodstuffs (European regulation 510/06). For more detail see Thévenod-Mottet (2006).

when dealing with development and sustainability. Moreover, official data of sufficient reach and quality is scarce at the supply chain level. Additionally, a question challenging the researchers is whether it is appropriate to aggregate indicators or to compare profiles of supply chains.

Some criteria are measured with *objective quantitative data*. “Objective methods” provide a snapshot of the impact differential between two states, permitting the comparison between farms, regions or supply chains. This differential can either be calculated for two different moments in time (diachronic evaluation, the reference is the object “before”) or for two objects “other things being equal” (synchronic evaluation, the reference must be defined by the evaluator). These methods are based on a comparison of indicators which can be directly measured (hard data such as numbers, prices, and percentages). The main sources are statistical data, accounts data, surveys and field observations. Nevertheless, more qualitative indicators can also be introduced (for example educational level). Often, researchers establish a ranking system based on expert and stakeholder interviews. Several scales of analysis are possible.

However, methodologies developed to assess territorial effects cannot be purely objective. The selection of the comparison point(s) and the indicators, though seeking objectivity, results from a process that implies some subjective points of view (van der Ploeg et al., 2000). “Objective methods” are valuable since they rely on sound statistical data (*hard data*). However, due to lack of data, they do not ensure a systematic analysis of the whole territorial influence of a GI system.

Some criteria cannot be measured directly (such as landscape aesthetics), and the system of indicators might become too complex, due to a high number of variables that are difficult to measure. New methods have been developed to overcome these limits. Contrary to “objective” methods, “subjective” ones allow the systematic measurement of numerous indicators. These surveys provide *subjective quantitative data*. They measure stakeholders’ acknowledgment of the effects of a PDO initiative on rural territories as compared to the main competing supply chains. They also highlight diverging opinions or, on the contrary, consensus regarding the contribution of such initiatives to rural development.

Despite these methodological difficulties, various studies on GIs in Europe conclude that in most cases the existence of positive effects can be shown. They identify key factors, in the ways in which these initiatives are organized, which may reinforce their capacity to provide economic, social and environmental positive externalities (Barjolle and Sylvander, 2002; Barjolle et al., 2007).

3 GIs' territorial impact assessment: a review of main studies

The early works that explored the potential of GIs to improve rural livelihoods (based on local resources), and thus advance rural development were simultaneously developed in France, Italy and Switzerland a decade ago. The DOLPHINS² team developed a conceptual framework that links characteristics of a GI archetype to potential effects on the territory (Belletti and Marescotti, 2002). Pacciani et al. (2001) developed the typology of GI governance in relation with territorial effects, whilst the GIS³ Alpes du Nord (France) started to develop assessment methods. In order to analyse the territorial impact, synchronic comparisons were applied in the framework of the Pressures-State-Response (PSR) model (traditionally used in environmental sciences) (Larbouret, 2000; Paus, 2001; Paus, 2003). Frayssignes (2001) worked on the elaboration of assessment grids, and Barjolle and Thévenod-Mottet (2004) used a diachronic comparison to assess the effects of the recognition of a PDO for the Abondance cheese. An attempt at a participatory approach was made through the commitment of local stakeholders to select and measure relevant indicators (hard data) in the case of the Raclette du Valais (Paus, 2003).

Studies dealing with economic performance are more popular in the field of agro-food initiatives than in those dealing with the two other pillars of sustainable development. Numerous studies on GIs investigate their economic performance (with emphasis on producers' price premium, generally in comparison to their industrially-produced counterparts) (Babcock and Clemens, 2004; Barjolle et al., 2007; Desbois and Néfussi, 2007; Bramley et al., 2009). It is worth mentioning the recent extensive review carried out by Bramley et al. (2009) where prices and welfare analysis are discussed (see also Anders et al., 2009; Mérel, 2009) and the willingness to pay for GIs in the light of different methods (e.g., hedonic pricing, conjoint analysis). The relationship between environmental values and GI systems, which includes ecosystem pollution, biodiversity, landscape etc., is the least studied dimension. Nevertheless, researchers have started exploring it with great interest (see for example Gauttier, 2006; Bowen and Gerritsen, 2007; Garcia et al., 2007; Riccheri et al., 2007; Cavrois, 2009).

In 2006, in the framework of the SINER-GI⁴ project, a first review of studies was provided (Reviron and Paus, 2006). The following paragraph is an extended and up-dated version of this review.

² Development of Origin Labeled products: humanity, innovation and sustainability. European Union concerted action QLK-2000-00593 financed by the fifth framework of the European Community for the research, technological development and demonstration activities (1998-2002).

³ GIS is the acronym of "Groupement d'Intérêt Scientifique", a French framework for research programs based on collaboration between research and/or development partners. The GIS Alpes du Nord became the present GIS Alpes Jura.

⁴ SINER-GI - Strengthening International Research on Geographical Indications: from research foundation to consistent policy. European research project funded by the European Commission and the Swiss Government.

3.1 Measuring impacts

3.1.1 “Objective” methods

Many research studies base their assessment on “objective methods”. The first five studies presented hereafter are diachronic evaluations (“before/after historical approach”). The last studies presented are synchronic (“with/without approach”) ones.

- *Simulation of changes in the code of practice.* Hauser (1997) simulated the evolution of the rural territory after a modification of the code of practice of Saint-Marcellin PDO cheese that would oblige the producers to use less than 50% of maize silage in the winter feed ration. The study shows that this new limitation would reduce the risk of land abandonment.
- *Transaction costs theory.* Barjolle and Thévenod-Mottet (2004) used the transaction costs theory to evaluate the impacts of the PDO registration of Abondance cheese on the spatial distribution of the supply chain and the type of production (on-farm vs. dairy production). The study shows that among all the different explanatory factors, three are directly linked to the PDO registration: the delimitation of the area of origin, the notoriety of the product and the possibility to distinguish the labelling according to the different types of production (on-farm processing vs. processing in dairy units). On the one hand, the registration did not help to keep traditional cheese dairies in the area where the cheese was first produced and it did not slow down the industrial concentration of cheese production. On the other hand, the PDO did play a role in the increase of farm production.
- *Statistics on volumes and sales.* Suh and MacPherson (2007) analysed, with a diachronic approach, the impact of the registration of the Korean GI “Boseong green tea” on production volume and sales. Production increased from 500 tons in 1997 to 1200 tons in 2005 and the market price increased by 90% between 2002 and 2006, whereas prices for domestic tea grown elsewhere in Korea hardly changed at all. These results highlight the effectiveness of the GI in a context of rising import competition through trade liberalisation. Moreover, the authors emphasised the impact of the GI on tourism and the preservation of regional cultural heritage (green tea festival, train tours).
- *Semi-structured interviews and surveys of farmers.* Bowen and Valenzuela Zapata (2009) examined the social, economic and ecological impacts that the agave-tequila industry has had on one community in tequila’s region of origin. They show that two main factors, the cycles of surplus and shortage of agave and the changing production relations in the agave-tequila industry have led to negative effects in terms of sustainability. According to the authors, economic insecurity among farm households increased the use of chemical additives and the overall decline in fertilizer application is due to the failure of the GI code of

practices for tequila to value the ways in which the *terroir* of tequila's region of origin have contributed to its specific properties.

- *Evolution of added value.* Based on a comparison between a study realised in 2000 (Zaugg, 2001), which aimed at calculating the creation of added value within the Tête de Moine PDO supply chain, Isler (2007) extended the study to 2006 data. The comparison shows job creation in the region at each level of the supply chain (linked to the production as well as to the promotion of the product), despite a negative trend at national level in the same sector. It is assessed that 60% of the added value remains in the region. It highlights the importance of job creation – however small in quantitative terms – in remote areas.
- *Economic concept of the territorial rent.* Hirczak et al. (2005) used this concept to determine whether a bundle of local products can have a positive impact on the territory in terms of attractiveness and image and can be part of a strategy for local development. The study shows that the basket of goods can be an interesting and efficient tool for regional development and that a PDO product may be the leading product in the basket.
- *Comparison between PDO supply chains and the national supply chain.* Coutre-Picart (1999) compared several PDO cheese supply chains of the northern Alps in France with the national cheese supply chain in order to determine whether the PDO supply chains have a positive economic impact in the region. The study highlights a clear economic performance of the PDO cheese supply chains, with effects on the territory in terms of added value, employment and investments. Chatellier and Delattre (2003) used the same method and found that the PDO cheese supply chains of the northern Alps have the same income per work unit (compared with the national cheese supply chain) despite lower subsidies.

Desbois and Néfussi (2007) compared PDO and non-labelled products with the data of the Farm Accountancy Data Network (FADN), an instrument for evaluating the income of agricultural holdings and the impact of the Common Agricultural Policy. Regarding the French dairy production, the authors highlighted a significant difference in the prices paid to producers, in favour of the PDO. Moreover, they stated that this added value is not totally absorbed by higher production costs.

- *Comparison between a PDO and an industrial supply chain within the same area or in similar administrative areas.* De Roest and Menghi (2002) compared the PDO Parmigiano Reggiano cheese supply chain to the industrial milk supply chain with regard to economic and environmental performance. The milk price, the farm structure, the employment per head of cattle and the balance of nitrogen were used as indicators. The results show that the PDO supply chain generates higher employment levels both on dairy farms and in the cheese dairies

because of labour-intensive practices. Moreover, the results show a lower loss of nitrogen per hectare due to a specific farming system (different cow feeding regimes). Furthermore, the study illustrates the importance of strong links between the actors and local culture and history for the success of a quality product.

Dupont (2003) used the same method and compared the PDO Comté cheese with the industrialised French Emmental cheese. In a combined diachronic/synchronic approach, the study highlights various positive effects of the PDO supply chain: increase in production, higher premiums to the producers, higher farmer incomes, slowdown of rural exodus, preservation of an outstanding landscape, development of agro-tourism.

Paus (2003) conducted a study in which she researched on indicator weighting and aggregation issues for a better communication of global impacts of PDO supply chains. In that perspective, she compared the Raclette du Valais cheese supply chain (in the process of being registered as a PDO) and the consumption milk supply chain (in the nearby valley) with regard to the different dimensions of sustainability. She found that the Raclette cheese supply chain favoured the upkeep of land and helped maintain local knowledge and regional specificity through the production of typical cheese in many small dairies. No significant differences were found in terms of environmental impact. This result might be explained by the fact that the Swiss agricultural policy is very demanding with regard to environmental requirements.

Hauwuy et al. (2006) combined this method and the one mentioned above (comparison with the national supply chain) to find out whether the PDO cheeses in the northern Alps have impacts in terms of agricultural dynamics, use of space, environmental performance and social relations. They found that the PDO cheese supply chains have a positive impact on agricultural dynamics in the production areas, that the incomes are similar to the French average, despite the smaller farm sizes (milk quotas), that the annual worker units employed are higher and the direct subsidies lower. On the other hand, the presence of a PDO supply chain does not seem to reinforce the direct participation of the farms in tourist activities, such as direct sales or agri-tourism. These activities are stimulated, but mostly carried out by non-farmers.

Vakoufaris (2010) stressed that “the impact of Laotyri Mytilinis PDO cheese is, on one hand, very important for the island of Lesvos but, on the other hand, not radically different when compared to the impact of Graviera, a close substitute and non-PDO cheese, which is also produced in the area by the same actors”. Nevertheless, he mentioned an increase in production of more than 100% between 1998 and 2005 (to 626 tons) for the PDO cheese, whilst during the same period, the production of the substitute dropped from 957 to 696 tons. However, no price premium at producers’ levels was observed.

Jena and Grote (2010) recently developed a procedure following a stratified random sampling to analyse the economic benefits of a GI in the example of Basmati rice. The authors surveyed 300 farmer households. The findings show that, despite higher production costs, Basmati rice is more profitable than the non-GI rice varieties. However, it is less profitable than the sugarcane, which is not a staple food, contrary to rice, that provides food security to the farmers. The results confirm an increment of net income from GI rice cultivation and support the hypothesis that GI adoption enhances the welfare of the households. The authors, nevertheless, are careful not to generalise the findings, as the studied product presents two particularities: it is an old well-known GI that has reached a significant value on export markets.

- *Overlay of environmental indicators and the number of PDO products in the same territory.* Hirczak and Mollard (2004) used this method of space overlays to determine whether the PDO differentiation offers a significant increase of environmental quality in the geographical areas concerned. The results show that a positive correlation can be observed between the PDO cheeses and the environmental quality. The density of producers is one of the favourable factors; however this link is neither univalent, nor systematic.
- *Benchmarking of PDOs.* Barjolle et al. (2007) studied the economic performance of PDO cheese supply chains in order to determine whether a PDO protection is a guarantee for creating and sharing added value with producers. The comparisons of quantitative data, regarding prices at different levels of the supply chain of various PDO cheeses in France and Switzerland, show that the PDO cheese organisations can obtain a premium at the consumer level and distribute this extra value to the producers. However, this performance is not guaranteed by the PDO registration and is the result of collective action.

Frayssignes (2005) compared French PDO cheese supply chains and analysed their contribution in terms of territorial development. He introduced two concepts: the concept of territorial anchoring and the concept of “PDO pole” (*pôle AOC*) that corresponds to a juxtaposition of several PDO supply chains and cooperation on the same territory. He found that the PDO supply chains only had a relatively small impact on the local economy. Nevertheless, he highlighted positive effects, such as price premium and valorisation of the profession of farmer.

Williams and Penker (2009) compared two case studies, the PGI Welsh Lamb and the PDO Jersey Royal Potato. The authors could not identify profound direct links associating the two products with ecological, economic and social effects. However, they found many indirect links. The GIs evaluated were more strongly tied to economic and social values than to ecological considerations. Moreover, the authors stressed that no significant territorial disadvantages were revealed.

- *Analysis of the environmental components of the code of practice of the Swiss PDO/PGI products.* Thévenod-Mottet and Klingemann (2007) analysed the code of practice of the Swiss PDO/PGI products in order to identify the rules with potential positive direct or indirect effects on the environment. The results show that, even though the Swiss ordinance on PDOs and PGIs does not require more environmentally friendly production methods than for standard Swiss products, some rules included in the code of practice could have positive external impacts on the environment. For instance, biodiversity could be enhanced by the obligation to use rare or ancient varieties or homemade leaven and the requirement to feed the cows with grass.

3.1.2 “Subjective” methods

Some research studies base their assessment on “subjective methods”. The idea is to ask informed people to grade initiatives regarding various items in order to evaluate their perception of the positive or negative external effects on the marketing of a product.

- *Benchmarking and Likert scale between the PDO and its competing supply chains.* Lehmann et al. (2000) studied the side-effects on the territory of various regional agro-food supply chains in the canton of Valais (Switzerland), using the Likert scale method. Paus and Reviron (2010) used the same method to compare the effects of Rye Bread of Valais PDO on rural development with its main competitors. The study highlights the excellent grades obtained by the PDO supply chain for the economic, social and environmental dimensions and shows the positive effects of a well-positioned PDO initiative, with a good consensus among the persons interviewed.
- *Benchmarking between GI supply chains.* Chapados and Sautier (2009) established a benchmarking between the Rooibos (South Africa), the Pico Duarte coffee (Dominican Republic), the Tequila (Mexico) and the Pampa Gaúcho da Campanha Meridional (Brazil). As the economic performance, as well as the territorial process, strongly vary from one case to another, the authors studied the mechanisms that might induce territorial effects (e.g. the specification of the product and the definition of the production area). The results show how the decisions taken by the actors have impact on potential and recognised economic, environmental, social and cultural effects. They also highlight the need to identify potentially negative effects.
- *Analysis of the practices linked to sustainable development in PDO and PGI organisations.* Ollagnon and Touzard (2007) conducted a survey to characterise practices linked to sustainable development in PGI and PDO organisations in France. The results of the 141 PDOs and PGIs investigated show that the organisations predominantly conduct economic activities (mostly collective promotion, fairs and websites). However, they also claim to conduct actions linked

to the environment (most frequently mentioned actions: reduction of pollution through changes in the code of practice, soil preservation, setting up of good practices), actions linked to heritage and culture (e.g. festive events), and actions linked to social cohesion and solidarity (e.g., training, participation in the social life of the territory). The results show that the investigated GI organisations undertake numerous and various voluntary actions in the fields of sustainable development and management of resources.

There are more and more studies regarding non-European GI systems. However, most of them are descriptive analyses, and do not follow a comparative approach, nor do they focus on the specific effects of the GI protection (one noteworthy exception is the paper by Jena and Grote, 2010). There is another valuable contribution which should be mentioned here: the diachronic study undertaken by Lybbert et al. (2010) that analyses the impact of the Argan oil boom (but not the GI) on households and the Argan forest between 1999 and 2007, revealing a slight improvement in the household income, and no improvement in terms of forest conservation.

Indeed, in emergent markets, the effects of the GI protection are even harder to distinguish from the other elements in the development of the supply chain. Additionally, it is worth noting that new topics emerged regarding territorial effects in comparison with European cases (El Benni and Reviron, 2009): biodiversity conservation (e.g. Argan oil, Coorg honey, Timiz pepper, Rooibos) (Lybbert et al., 2004; Garcia et al., 2007; Barlagne et al., 2009; Fournier et al., 2009; Leclercq et al., 2009; Simenel and Michon, 2009; Lybbert et al., 2010), and the status of unprivileged individuals (women in the case of Argan oil, coloured people in the case of Rooibos) (Leclercq, 2010; Lybbert et al., 2010).

3.2 Measure of expectations

For GI systems in progress but not yet established, as is the case in many non-European countries as mentioned above, it is not possible to assess their effective impacts. It is only possible to identify and assess factors on which the GI system or protection scheme could potentially have an impact. These expectations of potential impacts are often related to the main motivations of initiators, facilitators or backers (e.g. foreign aid agencies) of GI systems and protection schemes.

- Fournier et al. (2010) analysed the case of the shallot from the Dogon Plateau (Mali), and discussed the potential impact of the GI registration on the supply chain as well as on the territory. Higher prices for the shallot, as well as access to new markets, are expected. Moreover, the authors stress the need for coordination and collective organisation amongst local actors to obtain positive territorial effects. The authors depict ambivalent progress with regard to the collective initiative and warn against a registration that would not be coupled with territorial benefits.

- In the framework of the Siner-GI (2005-2008) project, a measure of expectations of GI buildings was established for the fourteen investigated case studies. A common methodological framework has been developed to analyse GI impacts with regard to expectations (Barjolle et al., 2009). Barjolle et al. (2009) established the following typology for “GIs in progress”:
 - “enthusiastic”: the most important expected impacts are market stabilisation or increase, the value added in the region, but also the preservation of local breeds or varieties. The expectations are high for the three dimensions of sustainability;
 - “socio-environmentalist”: the expectations on economic issues are less important than the social and the environmental ones. The initiatives mainly stem from a demand for recognition of specific farming practices. Indeed, these extensive and traditional farming practices are well adapted to the area;
 - “undecided”: the highest scores are given to the expected economic impacts. Nevertheless, for certain products, key actors consider the food safety and hygienic rules as being important drivers. Indeed, the evolution of general standards might put GI products under pressure. In general, issues related to the environment or society are considered as less important for the local stakeholders.

The authors concluded that for the products considered, there are clearly more expectations in terms of economic effects from GIs. The other dimensions are nevertheless also important but in diverse ways, depending on special concerns in the local context. For the local actors or the external initiators of the GI initiatives, the consensus concerning the potential impact is a good starting point as it leads to common objectives. The role of an external facilitator can be precisely to shed some light on the conflicts of interests or the common perceptions of the stakes, in order to facilitate the compromise regarding the delimitation of a geographical area or the definition of the conditions of production (Paus, 2010).

4 Conclusion

Impact assessment might concern a GI system (supply chain and network), the protection scheme (legal framework) or a cooperation project or programme aiming at implementing GI regulations. These evaluations require different perspectives and methods.

The literature review presented above provides interesting methods and strong results and shows that the assessment of effects of GI systems or protection schemes has become an important research topic. Case studies investigated mainly come from southern Europe, where the culture of protecting GIs is historically embedded. As for example, France has a century of history in promoting official origin-based quality signs

(Sylvander et al., 2007). Nevertheless, a growing interest in impact evaluation appeared in countries that recently established GIs' policies.

As more and more cooperation programmes are being launched in transition and developing countries (Barjolle and Salvadori, 2010), there is a need for a more robust and systematic methodology to assess the effects of both the GI framework and the registration of products. The general methodology presented hereafter is a valuable contribution to this objective.

4.1 Regarding the results

The literature review shows that the protection cannot by itself guarantee benefits for rural development. GI registration does not guarantee a fair distribution of value to producers nor positive environmental and social effects. These effects depend strongly on the quality of the supply chain governance and on the elements of the code of practices. In the EU, collective organization has been identified as a crucial success factor.

The research studies clearly identify the ability of GI production systems to create or reinforce positive effects on rural development, which are very welcome in marginal areas. These benefits come from differentiation: a special quality linked to the territory is acknowledged by consumers in the country and outside. This Unique Selling Proposition is defined by a written code of practices and guaranteed by certification. GIs' production often has the potential to obtain positive environmental and social side effects, which often justify external support from public authorities and NGOs. But the commercial idea and value creation process should not be hampered by too many external objectives.

4.2 Regarding the methods

Many methodological difficulties arise, such as the choice of a reference point for the synchronic approach, the collection of reliable data, the choice between objective or subjective methods, the sampling procedure adopted in the subjective method, and the separation of causes, as many factors work together. No single well-established method for measuring the impact of the implementation of a GI system or protection scheme exists.

Each method has its limitations: the specific point of view of the analysis, the size of the territory, the dimensions taken into account for the impacts (economic, social, and environmental), the number of indicators investigated and their prioritisation and aggregation, the size of the survey sample, the level of participation of external or internal stakeholders.

To overcome some of these limitations, participative approaches in the case of GIs' impact assessment have recently been applied to measure the territorial performance of two French PDO cheese initiatives (Reboul, 2010). Originating from the evaluation

toolbox of development projects, this approach has an interesting potential in non-European countries, in particular in situations of data scarcity.

Given that the building of GIs relies on the objectives of diverse actors (e.g., processors, farmers, donors, initiators), participatory evaluations enable the investigators to measure the achievement of objectives and evaluate the commitment of local actors. Moreover, participative approaches re-check interpretations with local actors and ensure a better determination of the causality chain. Finally, they contribute to ensure that political decisions are based on real needs of the population concerned.

Besides quantitative methods, qualitative analyses are also necessary to deal with important aspects, such as potential conflict(s) within the supply chain, exclusion of actors, and capacity to mobilise effective networks.

Indeed, beyond usual socio-economic and environmental indicators, such as farmer's income and use of pesticide, it is worth noting that impacts of GI implementation encompass processes that are difficult to measure. Partnership, participation, ownership, and empowerment are results that are particularly difficult to assess quantitatively. As Leeuw and Vaessen (2009) stressed, these aspects are promoted in policy, and are hardly reflected in evaluation practices. However, studies showed that partnership is a result which is crucial in the early stage of a GI-building process (Paus, 2010).

The participative approach developed in the methodology presented hereafter is a precious contribution to this research development field.

5 References

- Anders, S., S. R. Thompson and R. Herrmann (2009). "Markets segmented by regional-origin labelling with quality control." *Applied Economics* 41(3): 311-321.
- Babcock, B. A. and R. Clemens (2004). *Geographical Indications and Property Rights: Protecting Value-added Agricultural Products*. MATRIC Briefing Paper. Ames, Iowa, Midwest Agribusiness Trade Research and Information Center, Iowa State University. 04-MBP 7: 51 p. Available at <http://www.card.iastate.edu/publications/dbs/pdffiles/04mbp7.pdf>.
- Barjolle, D., M. Paus and A. Perret (2009). *Impacts of Geographical Indications, Review of Methods and Empirical Evidences*. International Association of Agricultural Economists, Beijing, China. Available at http://ageconsearch.umn.edu/bitstream/51737/2/PaperIAAE2009_85.pdf.
- Barjolle, D., S. Reviron and B. Sylvander (2007). "Création et distribution de valeur économique dans les filières de fromages AOP." *Economie et Sociétés Série: "Systèmes agroalimentaires"*, AG, 29 (9/2007): 1507-1524.

- Barjolle, D. and M. Salvadori (2010). Geographical Indications and International Cooperation in Developing Countries: an exploratory analysis of projects and institutions. Expert meeting on technical cooperation programs related to origin-linked products and geographical indications, Pergny-Geneva, AGRIDEA, FAO, OriGIn.
- Barjolle, D. and B. Sylvander (2002). "Some Factors of Success for Origin Labelled Products in Agri-Food Supply Chains in Europe: Market, Internal Resources and Institutions." *Economie et Sociétés, Cahiers de l'ISMEA, Série Développement Agroalimentaire*(25): 21 p.
- Barjolle, D. and E. Thévenod-Mottet (2004). Ancrage territorial des systèmes de production: le cas des Appellations d'Origine Contrôlée. *Industries Alimentaires et Agricoles*. 6: 19-27.
- Barlagne, C., L. Bérard, C. Garcia and D. Marie-Vivien (2009). Miel, indication géographique et biodiversité. Des liens émergents complexes. Localiser les produits: une voie durable au service de la diversité naturelle et culturelle des Suds?, Paris, UNESCO. Available at http://www.mnhn.fr/colloque/localiserlesproduits/5_Paper_BARLAGNE_C.pdf.
- Belletti, G. and A. Marescotti (2002). OLPs and rural development. WP3, Concerted Action DOLPHINS – Development of Origin Labelled Products: Humanity, innovation and sustainability.
- Belletti, G. and A. Marescotti (2006). GI social and economic issues. WP2 report, Strengthening International Research on Geographical Indications: from research foundation to consistent policy SINER-GI Project, European Commission, Sixth framework programme: 54 p.
- Bowen, S. and P. R. W. Gerritsen (2007). "Reverse leasing and power dynamics among blue agave farmers in western Mexico." *Agriculture and Human Values* 24: 473-488.
- Bowen, S. and A. Valenzuela Zapata (2009). "Geographical indications, *terroir*, and socioeconomic and ecological sustainability: The case of tequila." *Journal of Rural Studies* 25(1): 108-119.
- Bramley, C., E. Biénabe and J. Kirsten (2009). The economics of geographical indications: towards a conceptual framework for geographical indication research in developing countries. *The economics of Intellectual Property*. W. I. P. Organization: 109-141. Available at http://www.wipo.int/ip-development/en/economics/pdf/wo_1012_e_cover.pdf.
- Cavrois, A. (2009). Biodiversité et signes de reconnaissance agricoles. Quelles prise en compte de la biodiversité dans les marques, labels et certifications de

productions agricoles? Paris, Comité français de l'UICN:173 p. Available at http://www.uicn.fr/IMG/pdf/Rapport_Biodiversite_signes_reconnaissance_agricoles.pdf.

Chapados, A. and D. Sautier (2009). De la qualification des produits agroalimentaires à la diversité culturelle et biologique: une analyse comparée de quatre expériences d'indications géographiques dans les pays du Sud. Localiser les produits: une voie durable au service de la diversité naturelle et culturelle des Suds?, Paris, UNESCO. Available at http://www.mnhn.fr/colloque/localiserlesproduits/10_Paper_CHAPADOS_A.pdf.

Chatellier, V. and F. Delattre (2003). "La production laitière dans les montagnes françaises: une dynamique particulière pour les Alpes du Nord." INRA Productions Animales 16(1): 61-76. Available at http://granit.jouy.inra.fr/productions-animales/2003/Prod_Anim_2003_16_1_06.pdf.

Coutre-Picard, L. (1999). "Impact économique des filières fromagères AOC savoyardes." Revue Purpan 191: 135-153.

de Roest, K. and A. Menghi (2002). The production of Parmigiano Reggiano cheese. Living Countrysides: Rural Development Processes in Europe - The State of the Art. J. D. van der Ploeg, A. Long and J. Banks. Doetinchem, Elsevier bedrijfsinformatie BV: 73-82.

Desbois, D. and J. Néfussi (2007). Signes de qualité : quels résultats économiques pour le producteur? Demeter 2008: 49-96.

Duflo, E. and M. Kremer (2005). Use of Randomization in the Evaluation of Development Effectiveness. Evaluating Development Effectiveness. G. Pitman, O. Feinsein and G. Ingram. New Brunswick, NJ: Transaction Publishers: 205-232.

Dupont, F. (2003). Impact de l'utilisation d'une indication géographique sur l'agriculture et le développement rural - France - Fromage de Comté. Paris, Ministère de l'agriculture (MAAPAR).

El Benni, N. and S. Reviron (2009). Geographical Indications: review of seven case studies worldwide. NCCR Trade Regulation Working Paper No 2009/15. Available at http://82.220.2.60/images/stories/publications/IP5/GI_Case-studies_2009.pdf.

Fournier, S., D. Chabrol, H. de Bon and A. Meyer (2010). La construction de ressources territoriales: l'échalote du plateau dogon (Mali) face à la mondialisation du marché des alliacées. International EAAE-SYAL Seminar - Spatial Dynamics in Agro-food Systems, Parma. Available at <http://ageconsearch.umn.edu/bitstream/95495/2/paper%20completo%20190.pdf>.

- Fournier, S., F. Verdeaux, M. Avril and C. Durand (2009). Le développement des indications géographiques au sud: attentes des acteurs locaux et fonctions jouées. Etudes de cas en Indonésie et en Ethiopie. Localiser les produits: une voie durable au service de la diversité naturelle et culturelle des Suds? Paris, UNESCO. Available at http://www.mnhn.fr/colloque/localiserlesproduits/15_Paper_FOURNIER_S.pdf.
- Frayssignes, J. (2001). "L'ancrage territorial d'une filière fromagère d'AOC – l'exemple du système Roquefort." *Economie Rurale* 264-265: 89-103.
- Frayssignes, J. (2005). Les AOC dans le développement territorial. Une analyse en termes d'ancrage appliquée aux cas français des filières fromagères. Toulouse, INPT, ENSAT, Ecole doctorale TESC. Thèse de Géographie: 2 volumes, 469 p.
- Garcia, C., D. Marie-Vivien, C. Kushalappa, P. G. Chengappa and K. M. Nanaya (2007). "Geographical Indications and Biodiversity in the Western Ghats, India. Can Labeling Benefit Producers and the Environment in a Mountain Agroforestry Landscape?" *Mountain Research and Development* 27(3): 206-210.
- Gauttier, M. (2006). Appellations d'Origine Contrôlée et paysages. Paris, Institut National des Appellations d'Origine Contrôlée: 76 p. Available at http://agriculture.gouv.fr/IMG/pdf/inaoetpaysage_0207.pdf.
- Hauser, S. (1997). Qualification d'un produit agricole et conséquences possibles sur la gestion de l'espace. Le cas des AOC Saint-Marcellin. Paris, Institut National Agronomique Paris-Grignon. Rapport de diplôme et de DEA.
- Hauwuy, A., F. Delattre, D. Roybin and J.-B. Coulon (2006). "Conséquences de la présence de filières fromagères bénéficiant d'une Indication Géographique sur l'activité agricole des zones considérées: l'exemple des Alpes du Nord." *INRA Productions Animales* 19(5): 371-380. Available at http://granit.jouy.inra.fr/productions-animales/2006/Prod_Anim_2006_19_5_05.pdf.
- Hirczak, M., M. Moalla, A. Mollard, B. Pecqueur, M. Rambonilaza and D. Vollet (2005). Du panier de biens à un modèle plus général des biens complexes territorialisés: concepts, grille d'analyse et questions. Actes du Colloque SFER: Au nom de la Qualité. Quelle(s) qualité(s) demain, pour quelle(s) demande(s)?, Clérmont-Ferrand, Enita Clérmont-Ferrand.
- Hirczak, M. and A. Mollard (2004). "Qualité des produits agricoles et de l'environnement: le cas de Rhône-Alpes." *Revue d'Economie Régionale et Urbaine* 5: 845-868.
- Isler, O. (2007). Etude Tête de Moine. Importance socio-économique de la fabrication de fromage décentralisée pour une région. Euromontana, Piatra Neamt.

- Jena, P. R. and U. Grote (2010). Does Geographical Indication (GI) Reduce Vulnerability to Poverty? A Case Study of Basmati Rice from Northern India. Advancing Sustainability in a Time of Crisis, International Society for Ecological Economics Conference, Oldenburg, Bremen.
- Knickel, K. and H. Renting (2000). "Methodological and Conceptual issues in the study of multifunctionality and rural development." *Sociologia Ruralis* 40(4): 512-528.
- Larbouret, P. (2000). Evaluation de l'impact d'une filière AOC sur son territoire: conception d'une méthodologie, ENGREF, SUACI Montagne Alpes du Nord: 39 p.
- Leclercq, M. (2010). Le rooibos: dynamiques locales autour d'un produit marchand à succès, révélatrices d'une société sud-africaine plurielle. Paris, Muséum national d'Histoire Naturelle. PhD: 203 p. Available at http://tel.archives-ouvertes.fr/docs/00/57/05/97/PDF/Rooibos_These_Maya_Leclercq.pdf.
- Leclercq, M., E. Biénabe and P. Caron (2009). The case of the South African Rooibos: Biodiversity conservation as a collective consensus. Localiser les produits: une voie durable au service de la diversité naturelle et culturelle des Suds? Paris, UNESCO. Available at http://www.mnhn.fr/colloque/localiserlesproduits/20_Paper_LECLERCQ_M.pdf.
- Leeuw, F. and J. Vaessen (2009). Impact Evaluations and Development. NONIE Guidance on Impact Evaluation, Network of Networks on Impact Evaluation: 115 p.
- Lehmann, B., E. W. Stucki, N. Claeymann, V. Miéville-Ott, S. Reviron and P. Rognon (2000). Vers une agriculture valaisanne durable. Lausanne, Antenne Romande de l'Institut d'Economie Rurale, ETH Zurich: 306 p.
- Lybbert, T., N. Magnan and A. Aboudrare (2010). "Household and Local Forest Impacts of Morocco's Argan Oil Bonanza." *Environment & Development Economics* 15: 439-464.
- Lybbert, T. J., C. B. Barrett and H. Narjisse (2004). "Does Resource Commercialization Induce Local Conservation? A Cautionary Tale From Southwestern Morocco." *Society and Natural Resources* 17(5): 413-430.
- Mérel, P. (2009). "Measuring market power in the French Comté cheese market." *European Review of Agricultural Economics* 36(1): 31-51.
- OECD (1994). "Creating rural indicators for shaping territorial policy." Paris, OECD.
- OECD-DAC (2002). Glossary of Key Terms in Evaluation- and Results-based Management. Paris, OECD-DAC.
- Ollagnon, M. and J.-M. Touzard (2007). Indications géographiques et développement durable: enquête nationale sur les actions des organisations de gestion locale

des Indications Géographiques. Projet PRODDIG. Montpellier, INRA Montpellier - UMR Innovation: 65 p.

Pacciani, A., G. Belletti, A. Marescotti and S. Scaramuzzi (2001). The role of typical products in fostering rural development and the effects of regulation (EEC) 2081/92. 73rd Seminar of the EAAE. Policy experiences with rural development in a diversified Europe, Ancona, Italy.

Paus, M. (2001). Evaluation de l'impact territorial d'une filière A.O.C.: Contribution à la mise en place d'une méthodologie. Cas de la filière bovin lait dans les Alpes du Nord françaises et suisses. Institut National Agronomique de Paris-Grignon.

Paus, M. (2003). Test de faisabilité de la méthode d'évaluation de l'impact territorial d'une filière de qualité: application à la filière raclette au lait cru. Une comparaison entre le Val d'Illeze et le district d'Entremont, Valais. 2003/1. Zurich, Institut d'Economie Rurale, ETH Zurich: 107 p.

Paus, M. (2010). Collective agro-food initiatives and sustainable rural development: articulation between internal governance and rural governance. Illustrated by geographical indications from Switzerland and Serbia. Zurich, Swiss Federal Institute of Technology Zurich. PhD thesis. Available at <http://e-collection.library.ethz.ch/eserv/eth:2625/eth-2625-02.pdf>

Paus, M. and S. Reviron (2010). "Mesure de l'impact territorial d'initiatives agro-alimentaires: enseignement de deux cas suisses." *Economie Rurale* 315: 28-45.

Reboul, N. (2010). Contribution à la construction de grilles d'évaluation de la durabilité de filières fromagères sous AOC. Etudes de cas sur les filières Beaufort et Bleu du Vercors Sassenage. Montpellier, Montpellier SupAgro. Diplôme d'ingénieur de spécialisation en agronomie des régions chaudes de l'IRC-SUPAGRO: 79 p.

Reviron, S. and M. Paus (2006). Impact analysis methods - Special Report WP2, Social and Economic Issues. Strengthening International Research on Geographical Indications: from research foundation to consistent policy SINER-GI Project, European Commission - Sixth framework programme: 35 p.

Riccheri, M., B. Görlach, S. Schlegel, H. Keefe and A. Leipprand (2007). Assessing the Applicability of Geographical Indications as a Means to Improve Environmental Quality in Affected Ecosystems and the Competitiveness of Agricultural Products. WP3, IPDEV Project, Impacts of the IPR Rules on Sustainable Development, European Commission, Sixth framework programme: 125 p.

Simenel, R. and G. Michon (2009). "Secret de femme, secret de nature": l'huile d'argan ou la fabrication du mythe moderne des produits du terroir au sud. Localiser les produits: une voie durable au service de la diversité naturelle et culturelle des Suds? Paris, UNESCO. Available at http://www.mnhn.fr/colloque/localiserlesproduits/30_Paper_SIMENEL_R.pdf.

- Suh, J. and A. MacPherson (2007). "The impact of geographical indication on the revitalisation of a regional economy: a case study of "Boseong" green tea." *Area* 39(4): 518-527.
- Sylvander, B., L. Lagrange and C. Monticelli (2007). "Les signes officiels de qualité et d'origine européens. Quelle insertion dans une économie globalisée?" *Economie Rurale* 299: 7-23.
- Thévenod-Mottet, E. (2006). WP1 report: GI Legal and Institutional Issues. Strengthening International Research on Geographical Indications: from research foundation to consistent policy SINER-GI Project, European Commission - Sixth framework programme. Available at <http://www.origin-food.org/2005/upload/SIN-WP1-report-131006.pdf>.
- Thévenod-Mottet, E. and A. Klingemann (2007). Dimensions environnementales et paysagères des AOC-IGP en Suisse et territorialisation des promesses de durabilité agro-alimentaires. Joint Congress of the European Regional Science Association (ERSA), 47th Congress and Association de Science Régionale de Langue Française (ASRDLF), 44th Congress, Paris/ Cergy-Pontoise.
- Vakoufaris, H. (2010). "The impact of Ladotyri Mytilinis PDO cheese on the rural development of Lesbos island, Greece." *Local Environment* 15(1): 27-41.
- van der Ploeg, J. D., H. Renting, G. Brunori, K. Knickel, J. Mannion, T. Marsden, K. de Roest, E. Sevilla-Guzmán and F. Ventura (2000). "Rural Development: from Practices and Policies towards Theory." *Sociologia Ruralis* 40(4): 391-408.
- Williams, R. and M. Penker (2009). "Do Geographical Indications Promote Sustainable Rural Development?" *Jahrbuch der Österreichischen Gesellschaft für Agrarökonomie* 18(3): 147-156.
- Zaugg, U. (2001). Die regionale Wertschöpfung am Beispiel Tête de Moine. Tätigkeitsbericht der Schweizerischen Hochschule für Landwirtschaft 1999/2000. Zollikofen, Swiss College of Agriculture SHL.

Monitoring and evaluating the effects of the protection of Geographical Indications

A methodological proposal

Giovanni Belletti, Andrea Marescotti

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1 Introduction

The legal protection given to Geographical Indications (GIs) is an issue of growing worldwide interest and concern. From a purely normative and regulatory point of view, this interest stems from the need of World Trade Organization (WTO) member states to implement the TRIPS agreement (1994), which mandated member States to provide legal means for protecting GIs. From an economic and social standpoint, interest is growing because of increasing international competition on the level of product quality differentiation, where quality means all attributes, including emotional ones, that help products to stand out and avoid competing purely on price.

As a consequence, many public and private stakeholders at both local and global levels have fostered this new turn to quality. GIs appear to be one of the more interesting and “locally manageable” tools for attaining this aim.

It is often assumed that the protection of GIs, according to some national or international rules, is a means for achieving success in the marketplace and generating economic benefits for local producers, but also for achieving more general social and environmental effects. However, little has been done to evaluate the many types of effects from the legal protection of GIs, and no comprehensive methodology for evaluating those effects has been developed.

This study aims to make a contribution toward such a methodology and reverse this surprising lack of knowledge.

It has two objectives. First, it seeks to provide a general methodology for monitoring and evaluating the effects of introducing a “GI framework”, a legal and institutional framework for the recognition, registration, protection and management of all GIs in a given country. Second, the study seeks to provide a general methodology for evaluating the effects that registering a single GI will have on the “GI system” (that system being the socio-economic network associated with the supply chain of one particular GI product).

Section 2 introduces and discusses the concepts and some specific features of Origin Products and GIs, to derive some premises useful for the design of a monitoring and evaluation tool.

Section 3 covers some basic methodological issues related to the evaluation of GI effects and establishes some key points for the development of the monitoring and evaluation tool.

Sections 4 and 5 report, from an economic, social and environmental point of view, the typology of effects that the national GI framework and the registration of a single GI at product level may exert.

Section 6 gives some practical guidelines for the monitoring and evaluation of GIs, according to the framework discussed in the previous sections.

Section 7 contains a short synthesis of the report's main issues.

The proposed methodology has been tested in the case of Jamaica and examples cited in this report refer to some Jamaican products which might be registered under the recently established national *sui generis* legislation.

2 Specific Features of Origin Products and Geographical Indications

2.1 Introductory definitions

This study aims to provide a general methodology for evaluating the effects of both (a) the national GI framework and (b) the recognition of specific Registered GI (RGI) products according to the GI framework. A preliminary, working definition of both concepts is needed to clearly define the objects of analysis and to highlight some of their most relevant features.

2.1.1 The GI framework

The GI framework is defined as the legal and institutional framework for the recognition, registration, protection and management of all GIs in a given territory, normally a State or a union of States (as in the case of the European Union).

The TRIPS Agreement obliges all WTO member States to provide some kind of legal means to protect GIs. Member states, however, are free to choose the most appropriate implementation tool according to their own legal system and practice, provided that the aims of protection are attained.

According to a strictly “legal vision”, a GI framework should provide, as a basis, both a definition of GI (the concept) and a mechanism to recognise GIs, specifying the producers who hold the right to apply for and use the protected GI (*right to use*), and the tools to prevent the use of the GI on products which do not comply with the agreed rules of use (*right to prevent the use*).

Generally speaking, a GI legal framework is the set of laws, decrees and administrative procedures allowing stakeholders of each eligible product to apply for the registration of a GI and obtain protection against illegitimate or incorrect use of it. For exported products, the situation is more complex, and the effectiveness of the GI depends mainly on the recognition of the national GI system in foreign countries.

On a global scale, there are many ways to protect and regulate the use of GIs (Thévenod-Mottet, 2006). Currently, there seems to be three main systems: 1) laws focusing on business practices; 2) trademarks; and 3) *sui generis* protection (WTO, 2003). The complexity of these systems is partly due to the role of trademarks in Intellectual Property (IP) law, as these systems are often used for GIs even in countries oriented to *sui generis* protection. Moreover, *sui generis* protection generally applies to a limited range of products, or may differ from one type of product to another.

Different legal tools of protection in different countries may protect one GI. Such tools can also be the ground for conflicts in IP rights, especially conflicts between GIs and trademarks. The tools do not address the collective nature of the IP right attached to

GIs in the same meaning and to the same extent, and that may also be a problem when defining a universal concept for GIs (Thévenod-Mottet, 2006).

The public approach to GIs often goes further, charging GI protection with wider political aims. While many expectations related to GI protection focus on supply chain management and marketing improvement, other goals may include supporting rural development, enhancing social participation and organisation, and preserving the environment and biodiversity (Marescotti, 2003; Belletti and Marescotti, 2009; Wallet and Isla, 2009; Sylvander et al., 2006).

This report is focused on building a methodology for evaluating and monitoring the effects of a GI framework, by trying to capture the most relevant features of the framework according to the explicit aims declared in the GI framework's official documents.

Nevertheless, the GI framework is only a component of a wider GI policy that seeks to support GI systems and enhance positive impacts on local sustainable dynamics (economic, social and environmental), even while facing possible negative effects (Belletti and Marescotti, 2008). In particular, structural problems affecting agriculture, the food industry and retail environments; problems of coordination among firms; access to credit; and human capital and professional competencies should be considered in an integrated way when creating a comprehensive and integrated GI policy.

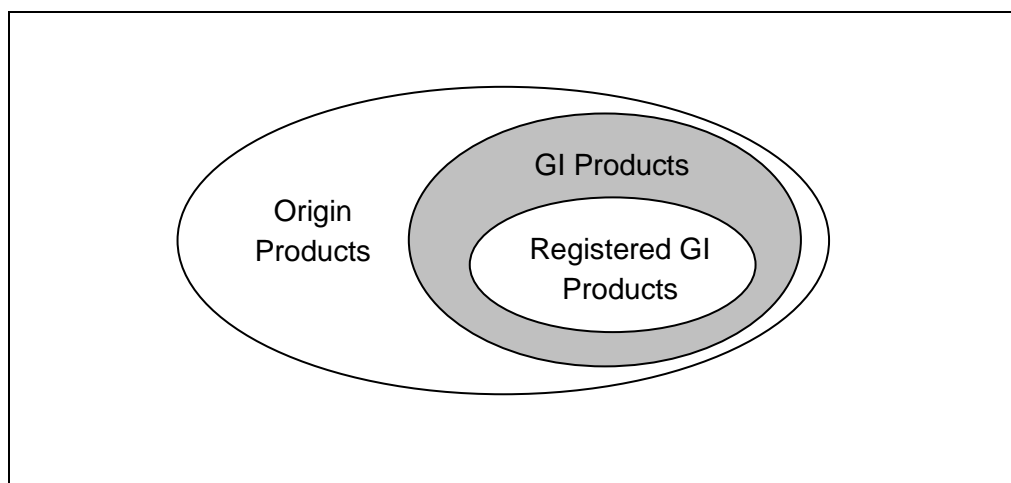
2.1.2 Origin Products (OPs) and Geographical Indication Products (GIPs)

To understand the effects of recognising and protecting a Geographical Indication, it is important to distinguish products with specific links to their territories of origin (which often bear a geographical name or identifier) from those officially recognised as GIs based on an Intellectual Property Right (IPR) protection scheme, the above mentioned "GI framework".

Such *Origin Products (OPs)*, being linked to a specific territory, are characterised to varying degrees of importance by one or more of the following key elements:

- material characteristics that make them "special" (no other products having similar characteristics);
- specificity of natural and human resources used in the production process;
- history and tradition of the product, and links to history and tradition of the local population;
- a collective dimension (many actors involved) and local, shared knowledge with regard to both production and consumption.

Scheme 2.1 Taxonomy of different types of products linked to territory



Source: Thévenod-Mottet (2006); Belletti and Marescotti (2006)

GI products (GIPs) are OPs named or labelled with a GI. Thus, the GI used for a GI product differentiates it from an OP.

Registered GIs¹ (RGIs), or Registered GI products (RGIPs), are GIs protected by special legal means. Hence, GI protection by special legal tools requires an official “recognition” granted through either a formal registration process, an administrative act or a court decision.

In most national legal frameworks, the registration of a GI is based on a **Code of Practice (CoP)**. The CoP is a document specifying the GI product’s attributes in relation to its geographical origin. It also describes the product and its production methods, laying down requirements not only for modes of production but also, where applicable, for processing, packaging, and labelling, among others. Any party using the GI must meet the requirements established by stakeholder consensus in the respective GI’s value chain and laid down in the CoP.

A **control plan** can lay out the checking procedure of the CoP’s various rules of compliance. The plan is a management tool identifying the control points in the critical stages of production and the means of verifying conformity to CoP requirements.

A **guarantee system** can ensure the presence of attributes and compliance with specifications mentioned in the CoP (assessable criteria and critical points of the control plan: what is to be controlled, when and by whom, and the type of sanction).

¹ RGI or RGIP will be used to avoid any confusion with PGI, which is a legally defined category in many *sui generis* legal frames, whereas the special means of protection can exist in other legal frames such as case-by-case legal definitions or court decisions.

Finally, **enforcement** is the process through which norms have legal force and effect. The rules collectively established for the GI product by means of the CoP must be enforced against those misappropriating the GI. The GI's producers can enforce these rules through a court, or national authorities may give the producers official standing. In addition, enforcement is often granted through ex officio actions by national authorities, who also may take some action concerning usurpations in third countries.

From the production side, OPs and GIPs are the end-result of local production systems and supply chains making use of specific local resources in the production process. When the GI registration is obtained, a sub-system of firms, using the recognised GI according to specific rules, can be identified inside the OP production system. This sub-system is called the *GI production system*. The boundaries between the GI and the non-GI part of the OP system are very often not fixed and move over time (firms cannot use the GI outside the special protection scheme rules, and the same firm can make use of the registered GI for only a part of its OP production).

2.2 Relevant features of Origin Products and Geographical Indications

Origin Products production systems and GIs have many specific relevant features that should be carefully considered when the effects of the GI legal registration are analysed.

The first feature refers to *complexity*. OP production systems are complex, with a plurality of actors and stakeholders intervening (farmers, other firms, local population, and local public administrations). They are strictly interrelated to many local resource typologies, such as: biological resources (local breeds and vegetal varieties); soil features due to the traditional production systems used; human resources linked to local skills in farming and/or processing activities; and cultural resources like food habits, identity and symbolic, local capital.

OPs have a multidimensional and very strict link (*ceteris paribus*, stricter than other kinds of products) with their territory of origin. For this reason, each modification in an OP system, deriving from the recognition of the GI, impacts many elements of the related territorial capital. A key element for consideration is the *sustainability* of the value created by OPs and GIPs, given how these products are linked to local and specific natural and human resources.

Another feature refers to GIs' *non-universality*. In fact, not all the actors belonging to the OP system normally take part in the RGI system, due to either individual choice or an actor's inability to meet the RGI Code of Practice standard or procedures. An improvement in the RGI part could affect the non-GI part of the OP system in a positive or negative way. Again, redistributive effects of GI recognition should be carefully considered.

Freedom of use is a third feature of GIs. Firms that comply with the RGI Code of Practice can choose whether to use the GI on their products, depending on the marketing channels and customer preferences and knowledge, and provided such use it is profitable within their global strategy. GI registration does not guarantee that a particular GI will be used by firms, or at least by all those complying with the CoP.

GI protection schemes are *but one of the many elements in the valorisation processes* of Origin Products. GIs enter as one of the tools in the formulation of individual and collective strategies; the measured impacts are not attributed exclusively to GI registration because it is very difficult to separate the roles of each tool.

GI registration can affect many aspects of both OP systems, not only in marketing (quantities sold, prices, added value, etc.) but also in the modification of *structural and/or organisational features of the GI system* and supply chain. For example, the recognition of a GI can strongly contribute to modifications in production methods and organisation, in the coordination and governance mechanisms inside the local production system, along the supply chain, and so on. Some studies indicate that the effects of GI recognition come to a degree from the “market signal” nature of the GI, but mainly from the contribution to a more general restructuring and organisational transformation of the OP production system.

On the *consumer side*, an official GI registration is expected to better indicate the specificity of the OP produced according to the CoP. Depending on the legal framework, a third party offers consumers a guarantee to respect the CoP. In consumer research literature, GI labels are most often conceptualised as a decision-making aid for consumers, decreasing their transaction time. The labels impact purchase decisions by reducing both the number of times consumers stop in front of store shelves and the time they spend holding products. In fact, an official designation on a product has been found to coincide with enhanced quality perception, overall preference, and willingness to pay a premium.

By modifying the local production system and the behavior of firms involved in it, GI protection has many effects on *other economic activities* outside the local OP production system and on local territorial capitals (i.e. social, economic, cultural and environmental ones). In fact, concerning the role given to OPs, actors may adopt two main approaches: supply chain strategy and extended focus strategy. The latter involves conceptualising OPs as rural development assets. OPs are seen to contribute, potentially, to a wide range of initiatives that encourage diverse activities and novel interactions between multiple types of actors (e.g. tourist routes, markets, festivals, educational initiatives, community events). This use of OPs by local actors has been described as a “territorial quality” or “extended territorial” strategy. Under this strategy, the territorial identity and product associations generate the value, rather than the physical outputs of a single production network and supply chain. The identities and associations are seen as usable for a broad range of actors who may apply them to a ‘basket’ of goods and services, resulting in a wide distribution of economic rent. In conclusion, *chains of cau-*

salinity linking GI registration and protection, GI use and GI effects are very complex, and they are subject to many “exogenous interferences”. Analysing the chains of causality helps to understand the effects of GI protection.

3 Evaluation: Methodological Issues

3.1 What is an “evaluation”?

Policy evaluation can be defined as a set of interconnected actions aimed at assessing the design, implementation and outcome of a policy, and its effectiveness and efficiency in reaching its objectives. More generally, it assesses the consequences of the policy. In other words, in policy analysis, evaluation aims to identify the links between a policy intervention and the modifications to the policy object; and, the context in which the policy intervenes. In particular, evaluation seeks to understand if the intervention achieves its declared aims, at the same time considering possible, unexpected effects over other variables.

As stated by Ezemenari et al. (1999), “the basic organising principle for any good evaluation of an intervention is to ask the question: what would have happened in the absence of the intervention? What would have been the welfare levels of particular communities, groups, households and individuals without the intervention? Evaluation involves an analysis of cause and effect in order to identify impacts that can be traced back to interventions.” Further: “An impact evaluation assesses the extent to which a program has caused desired changes in the intended audience. It is concerned with the net impact of an intervention on households and institutions, attributable only and exclusively to that intervention. Thus, *impact evaluation consists of assessing outcomes and, thus, the short- or medium-term developmental change resulting from an intervention.*”

In the context of this work, the introduction of a GI protection scheme can be considered as an “intervention” in the perspective of the State providing this tool, and as a “project” in the perspective of a set of supply chain actors who use the GI in their strategies of development.

To be implemented, evaluation requires resources. Normally, the more precise the desired results, the higher the costs for providing information and developing the evaluation. The level of detail and accuracy of the evaluation should be harmonised with the aims and resources of the organisation contracting the work, according to the principle of cost-effectiveness.

First, a “good” evaluation requires the clear definition of the “intervention/project” objectives in order to delimitate the field of analysis and concentrate available resources on the more relevant issues. Expected effects should be defined so they can be matched with the real effects of the “intervention/project” and to see if goals are met.

Second, at the outset, performance standards and indicators need to be established. This allows for a “measurement” of the effects of the “intervention/project”.

Finally, a counterfactual should be defined; this is the forecasted course of events that would have taken place in the absence of the intervention.

3.2 Searching for a counterfactual

The basic problem that the evaluation has to address is whether the effects of the intervention can be attributed to the intervention itself rather than to other factors or events.

If one could observe the same object of analysis (for example, the GI system) at the same point in time with and without the intervention (for example, the protection of the GI), this would allow easy assessment of the intervention's effects. In reality, this is impossible; thus, counterfactual analysis is the method normally used for "netting out" the effect of the interventions from other factors by means of "experimental" controls. As a reference for the evaluation, counterfactual analysis takes a "control group" not affected by the intervention under evaluation, or by other factors not affecting the group under evaluation (*ceteris paribus* condition). In other words, by means of counterfactual analysis, a "without" scenario is built to identify and measure the effects of the intervention under analysis (the "with" situation) by comparing "with" and "without" situations. The correct definition of the control group is a key to identifying what would have occurred in the absence of the intervention, at the same point in time.

An alternative could be offered by "quasi-experimental" controls, that is, the comparison of the "before" and "after" intervention scenarios. Indeed, the "before" scenario cannot be assumed as an accurate counterfactual to the "after" scenario, since the context for agricultural production and resource management is constantly evolving. As a consequence, care must be taken to ensure that before-and-after ("reflexive") comparisons accurately represent the course of events without the assessed intervention.

There are many difficulties in the definition of a realistic and accurate counterfactual in agricultural fields of analysis. Agriculture, and local agricultural systems that give rise to Origin Products, are dynamic sectors influenced by a multitude of exogenous factors, including government policies, conflicts, resource changes, social changes and climate dynamics, in addition to the effects of technical, organisational and marketing changes. Among these many drivers of change, it is a considerable challenge to determine what the course of events would be if a single technical, organisational or marketing contribution, like the GI registration and its use by firms, were removed.

In this context, and more generally in the social sciences field, it is impossible to make experimental and quasi-experimental controls. For GIs, there are additional difficulties in the definition of a counterfactual.

GI systems are very often "small systems", making the relevance of exogenous factors stronger, and such systems usually operate in very specific local contexts from an economic, social and environmental point of view. It is very difficult to find a "control prod-

uct”, able to serve as a counterfactual and endowed with characteristics very similar to those of the GI system. In addition, the GI registration modifies the situation not only of producers and firms that use it, but also of producers and firms belonging to the local OP system but not using the GI. It is very difficult to find a “control group” of producers able to serve as a counterfactual.

The establishment of a causal link between the intervention/project and changes measured in the observed variables (indicators) is a key element that requires identification of the appropriate causal pathway from the specific monitored intervention up to the measured effect, relative to other drivers of change. According to CGIAR’s approach (2008) to intervention evaluation, the counterfactual at this level should identify the “next best” technologies or policies that would have been developed and adopted without the assessed intervention, and should analyse how farmers would adjust their practices to make the best use of the tools thus available. In the GI field of analysis, considering that OP and GI systems are “living”, it becomes important to understand what could be the individual firms’ and collective OPs’ valorisation strategies if the GI were not registered according to the GI framework.

3.3 Quantitative versus qualitative methods

Another methodological key issue is the choice of quantitative versus qualitative evaluation methods. The availability of quantitative data is often a strong constraint in evaluation; a collection of data specifically designed for the evaluation is often needed, but it could be very expensive. The validity and reliability of quantitative data depend on the precision in collecting the key variables and on the appropriate selection of the sample. The validity and reliability of qualitative data greatly depend on the methodological skill, sensitivity and training of the qualitative evaluator. Qualitative methods rely less on statistical precision to ensure validity: statistical tests are not possible and triangulation (the systematic use and comparison of data collected with independent methods) is often used to ensure data validity and reliability. According to Ezemenari et al. (1999), “although both experimental and non-experimental methods are grounded in quantitative approach to evaluation, incorporating qualitative methods enriches the quality of the evaluation results. In particular, qualitative methods not only provide qualitative measures of impact, but also aid in the deeper interpretation of results obtained from a quantitative approach by shedding light on the processes and causal relationships.”

The usual quantitative approach to evaluation consists ideally of the following elements or phases: 1) an experimental or quasi-experimental design; 2) quantitative data collection; and 3) statistical analysis of data.

In contrast, the qualitative approach includes 1) inductive or “naturalistic” open-ended inquiry; 2) qualitative data collection; and 3) content analysis that includes not only description, interpretation and analysis of patterns observed in qualitative data, but also the accompanying processes and causal relationships that these data generate.

The quantitative and qualitative approaches should be combined in various ways, according to the specificities of the field situation (Miller, 2001). Combining the two approaches provides quantified results of the effects of an intervention or project, as well as explanations of the processes and intervening factors that yielded the results. It also enriches interpretation and explanation (causality) of the monitored project's outcomes.

3.4 Different perspectives for the evaluation of GI registration effects

Normally, policy interventions and projects exert their effects over different stakeholder categories and with reference to different territorial scales. For example, building a dam for irrigation allows farmers in the newly irrigated area to introduce technical innovations and choose new production methods that can increase yields. This will have effects not only on those farmers, but also on consumers and farmers outside the irrigated area.

The same thing occurs when evaluating GI registration effects. The stakeholders involved in each Origin Product are interested in the GI dynamics. These stakeholders are active at different territorial levels; they have different aims and goals, and some belong to different economic sectors within the OP/GI product's supply chain. GIs can have effects at different territorial scales - from local to international - and in different territorial capitals.

As a consequence, there are many perspectives from which GI effects can be monitored and evaluated (see Table 3.1). Different stakeholders will be interested in different GI effects, and they will be inspired by different values when evaluating the same GI performance. For example, the evaluation of a price increase for raw materials may be positive for the producing farmers and negative for the food processors.

Table 3.1 Different perspectives for the evaluation of GI registration effects

1. *Stakeholder perspective:*
 - a. Public authorities
 - b. Firms belonging to the OP or GI supply chain
 - c. Local population
 - d. Consumers
 - e. ...

2. *Territorial perspective:*
 - a. National
 - b. Regional
 - c. Local/community
 - d. ...

3. *Sector / type of activity perspective:*
 - a. Input suppliers
 - b. Agriculture
 - c. Processing (first processing, second processing, etc.)
 - d. Trade and commerce
 - e. Retail
 - f. ...

 4. *Territorial capital perspective:*
 - a. Economic capital (in the GI supply chain and in related economic activities - tourism, commerce, etc.)
 - b. Social capital (labor, equity issues including gender, participation of less favored population, strengthening social identity, etc.)
 - c. Environmental capital (habitat, agrobiodiversity, water control, soil degradation, pollution, etc.)
 - d. Cultural capital (heritage preservation, preservation of traditional production/know-how, ways of life, buildings, etc.)
 - e. ...
-

It is very important to consider these perspectives because they orientate the analysis from the beginning and lead researchers to focus on specific issues rather than on others.

Some key questions to be answered in the preliminary phase of the monitoring and evaluation activity are:

- What actors are involved in the OP and in the process of GI registration and use? Who is legitimated to express his/her point of view in the evaluation? (Identifying different actors and their points of view is the first step for making an evaluation.)
- Are all actors empowered to take part in the evaluation? How can different stakeholders be integrated in the evaluation process?
- Are all the effects from the GI registration taken into account and, in particular, “indirect” and “unintended” effects? For example, the effects of a GI registration and use on actors excluded by the RGI, on social and environmental dimensions, and on other products without GI.

Participatory evaluation methods, in both the building and monitoring and evaluation phases, are needed to define meaningful indicators.

3.5 Subjective issues and participatory methods

Measuring what happens as a consequence of a GI registration is an important step, but very often it is not sufficient to understand the reasons for changes.

Considering the “black box” of the collective dynamics around the GI and the “black box” of the decision process of firms using (or not using) the GI is a very important and complex matter (Belletti and Marescotti, 2006; Belletti and Marescotti, 2009). Some examples of “subjective issues” influencing the decisions are given in Table 3.2.

Table 3.2 Subjective issues in the GI process

PHENOMENA (OBJECTIVE SIDE)		SUBJECTIVE ISSUES
Introduction of a GI protection tool, design and implementation: <ul style="list-style-type: none"> - Code of Practice (CoP) characteristics: geographical boundaries, production process and product rules - Governance and GI organisation structures - ... 	→	<ul style="list-style-type: none"> - Why was the GI tool chosen by actors? What are the expectations of different stakeholders? - Different points of view in the definition of the Codes of Practices, debates, conflicts - ...
Level of use of the RGI: <ul style="list-style-type: none"> - Who is using it? - Who is not using it? - To what extent is it used? - ... 	→	<ul style="list-style-type: none"> - What are the problems encountered by firms using the RGI? - What new opportunities are there for marketing the product? - What capabilities are lacking? - ...
...	→	- ...

Taking into account subjective issues in the monitoring and evaluation process can help to understand what is occurring (or what is not occurring, even if expected), and hence provide useful information for improving GI performance (Reviron and Paus, 2006; Paus and Reviron, 2010; Barjolle, Paus and Perret, 2009).

Qualitative methods support the interpretation of results obtained by quantitative approaches by shedding light on the processes and causal relationships. In addition, participatory methods may help to highlight subjective issues. These methods offer interesting advantages compared to “conventional methods” of monitoring and evaluating complex socio-economical phenomena. They often overlap with qualitative methods, but can also be used in conjunction with quantitative ones.

Participatory methods are based on active stakeholder involvement, particularly at the local level, and on groups that have generally a very limited role in conventional eval-

uation. They are involved in determining the objectives of the evaluation, the indicators and methods to be used, and in monitoring and final evaluation activities. Participatory task-building and monitoring generate the basis for participatory evaluation, i.e. an evaluation reflecting perceptions, needs, perspectives and priorities of all stakeholders. In addition, participatory methods facilitate discovery of unanticipated consequences of an intervention, such as 'second-round', unforeseen, and positive or negative effects (Blackstock et al., 2007).

Table 3.3 Differences between conventional and participatory evaluation

	Conventional evaluation	Participatory evaluation
Who	External experts.	Community members, project, staff, facilitator.
What	Predetermined indicators of success. Principally cost and production outputs.	People identify their own indicators of success, which may include production outputs.
How	Focus on 'scientific objectivity': distancing of evaluators from other participants; uniform, complex procedures; delayed, limited access to results.	Self-evaluation; simple methods adapted to local culture; open, immediate sharing of results through local involvement in evaluation processes.
When	Usually upon completion of project/programme; sometimes also mid-term.	More frequent, small-scale evaluations.
Why	Accountability, usually summative, to determine if funding continues.	To empower local people to initiate, control and take corrective action.

Source: *Estrella and Gaventa (1998)*

Participatory monitoring and evaluation is a learning process, "where stakeholders learn, on the one hand, to develop and adjust methods and techniques for evaluation, negotiation, consensus-building or conflict resolution and, on the other, to assess and compare their own perceptions of substantive project progress or problems. So, even if the principles and general outlook of the conventional and the participatory approach to monitoring and evaluation are clearly different, they are nevertheless complementary, participatory monitoring and evaluation providing an *insider* process-oriented perspective, and the conventional evaluation approach a more detached *outsider* perspective." (Ezemenari et al., 1999)

When monitoring and evaluating RGIs, it is absolutely essential to adopt participatory methods due to the characteristics of OPs (see Section 2).

3.6 What kind of expected effects?

In impact analysis, three levels of project effects are normally considered (European Commission, 2001; European Commission, Directorate General for the Budget, 2004) (see Scheme 3.1):

A. *Outputs* are the first and most immediate results of a number of activities activated by the project. Outputs measure the level of attendance/adoption by a project's potential beneficiaries.

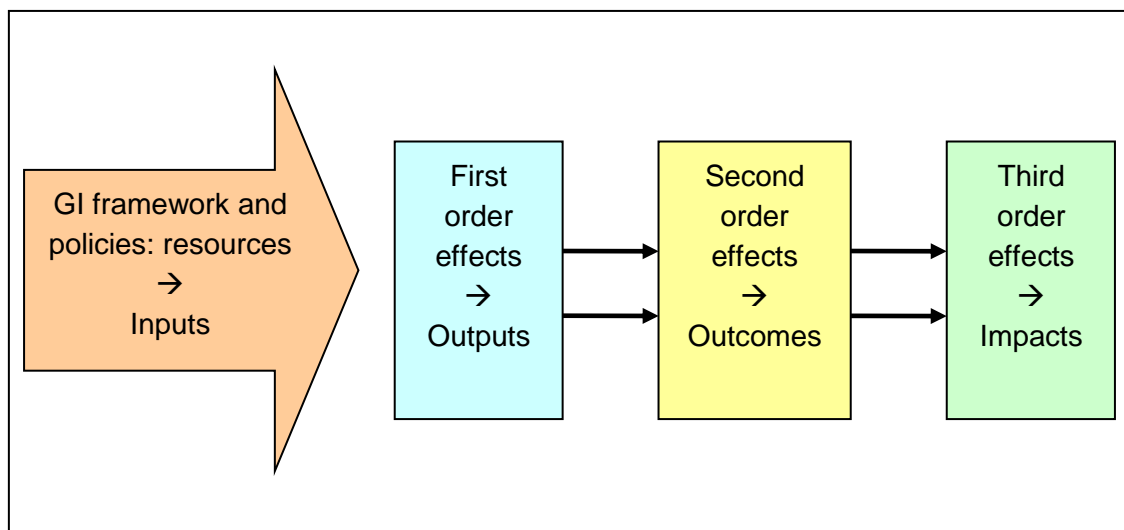
B. *Outcomes* are immediate and direct effects of the outputs, depending on their use and adoption by final users. They can be conceived as the immediate advantages, or exceptionally as the immediate disadvantages, of the project, for direct beneficiaries considered as individuals (individual outcomes) and, if pertinent, as a group (collective outcomes).

C. *Impacts* are the consequences of the project beyond its direct and immediate interaction with the beneficiaries, and take into account the changes induced by outcomes at a wider level on economic, social and environmental dimensions. There are normally three main categories of impacts:

1. the first category groups together the consequences that appear or that extend into the medium term (specific effects) for the direct beneficiaries of the project;
2. the second consists of all the consequences that affect, in the short or medium term, people or organisations that are not direct beneficiaries;
3. the third consists of the effects on social and environmental dimensions.

Relevance, performance and success should be assessed in an integrated way to help create a sound basis for making recommendations and drawing lessons learned from experience to improve project quality.

Scheme 3.1 Outputs, outcomes, and impacts



The full deployment of a policy's effects, and in particular the third order effects, can be lengthy and require that an evaluation be extended over time. The issue of selecting a proper "lag time" and structure has been debated extensively in the impact assessment literature.²

Within both individual and collective marketing strategies, the GI registration and its use by firms can be seen as a cumulative, evolutionary innovation process that takes time to develop fully, as it requires individual and collective learning.

Some effect typologies can be observed only after a certain period of time, due to the lag between the introduction of the GI and the full deployment of its effects. Consequently, one must pay particular attention to the distribution of the GI registration effects over time.

3.7 The evaluation as a process

The elements discussed above underline that evaluation is a very complex matter, especially evaluation of the effects of GI policies and GI initiatives, given that GI protection schemes intervene on complex systems (Origin Product systems) and that they are used very differently according to different situations. This is because actors use GIs as tools within their more general development and marketing strategies.

² For example: Tavistock Institute, GHK e IRS (2003), Taschereau (1998), OECD – LEED Programme (2009), Directorate General External Relations and Directorate General Development, EuropeAid Cooperation Office, Volume 1-4 (2006), IFAD (2002), European Commission, Directorate General for the Budget (2004), Case (1990).

Every change, at institutional or normative level (the GI framework) and at GI system level (the GI protection of a single GI product), displays many direct and indirect effects.

Monitoring and evaluating are a set of activities, not separate ones. They are strictly interrelated and develop over time, and must be contextualised to take into consideration the specificities linked to the product, its production system and its territorial system (society, environment, etc.). As a result, a tool aimed at supporting the monitoring and evaluation of the GI effects should be able to adapt to local specificities: *flexibility* is a key feature during all phases.

First, the evaluation and monitoring of the GI framework and the GI systems require a clear statement of the actors' aims when implementing and/or using the GI tool. This will allow identification of the critical areas for evaluation.

Second, evaluation tools and general methodology should be adapted to the context specificities: this is a very critical phase, in order to have coherence between the evaluation tool and the local context.

Third, the evaluation tool has to be implemented. This requires an organisation and a monitoring system for data collection over time.

Finally, a process is needed for the analysis and interpretation of the collected data, considering the different, relevant perspectives for the evaluation, and different expectations. Only a comparison between aims and results will give sense to the evaluation process.

4 The effects of establishing a GI framework

4.1 The typology of effects

When monitoring and evaluating the national GI framework, an analysis of the responsible authority's objectives should be made to orientate the evaluation and to check if the expected effects of the framework are attained.

As stated in previous sections, first order effects capture the immediate results of creating the GI framework at both national and international levels, especially in terms of number of registered GIs (also with regard to the total number of OPs which may access the GI framework).

First order effects can therefore be analysed over four main evaluation areas:

- *Diffusion of the GI scheme.* The number of registered GIs is the simplest indicator because it shows the interest in the GI tool coming from a country's "OP sector". In addition, the number of registered GIs could be compared to the number of potential registrable GIs assumed as a benchmark. If export markets are important, the number of registrations of national GIs in other countries could be a key evaluation criterion.
- *GI potentiality,* measured in terms of number of firms, or for agriculture, cultivated areas/heads of cattle registered in the GI system, also compared to availability (total firms, cultivated area, heads of cattle in the country, or in the specific geographical area). In many GI legal frameworks, firms wishing to use the RGI (and who comply with some entry requirements defined by the CoP) should be registered in an official "RGI producers' directory" before starting to use the RGI on their products.
- *Real use of the registered GI by individual firms and by the whole GI system,* measured in terms of quantities and/or market value of GI-labelled products, market shares at production, intermediate or final market, etc. Indeed, after being registered to the GI system, firms may decide whether or not to use the RGI depending on market conditions, production quality, or the firm's strategy (see also below, Section 5.2.1).
- *Producer awareness.* Awareness of the general meaning of GI and of quality signs associated with GI, such as acronym and logo, at different levels (agriculture, processing, trade).

Second order effects are immediate and stem from the implementation of the GI framework by firms³. The identification and analysis of the second and third order effects should be oriented by the aims of the GI framework as stated in the GI law; implementing regulations; and other public policy declarations (London Economics, 2008). Second order effects can be analysed with reference to the following main evaluation areas:

- *Abuses/imitations of the registered product.* The number of imitations and frauds in the internal market and abroad, and the number of sanctioned imitations and frauds.
- *Consumer awareness and satisfaction.* The GI framework is normally directed at enhancing consumer awareness and information of the quality properties of goods exchanged on the market. Consumer knowledge and trust in the GI as a “quality sign” is of paramount importance in the functioning of the GI system: to what extent are consumers aware of the meaning of GI protection, of the GI acronym (if any, as PDO and PGI in the EU) and of the related logo (if it exists)? Did they perceive an improvement in the quality of Registered GI products on the market?

Third-order effects are the more general consequences of adopting the GI framework. For GIs, the below effects on rural development, social and environmental issues are normally considered:

- *Rural development issues.* This is the extent to which GIs can support socio-economic development, especially in rural areas. Besides revenues, added value, employment and other economic contributions provided by the GI local economic system, the contribution GIs can make to rural development depends on their contribution to other economic activities, such as tourism and leisure, that diversify the local rural economy.
- *Social issues.* GI registration may foster social fairness, prompting inclusions of less empowered stakeholders (women, poor people, etc.). It may improve working conditions and facilitate a more equitable distribution of the added value generated by the registered GI. In addition, the registration of a GI may contribute to preserving social culture and traditions.
- *Environmental issues.* The effects of the GI framework on environmental issues depend on how the involved actors write and implement CoPs of the registered GIs. Examples of environmental issues to be monitored are biodiversity preservation, water pollution, soil erosion, landscape quality, and use of chemical pesticides and fertilizers.

³ Here, the term “firms” means entities on the production level, e.g. companies, enterprises or private cooperatives.

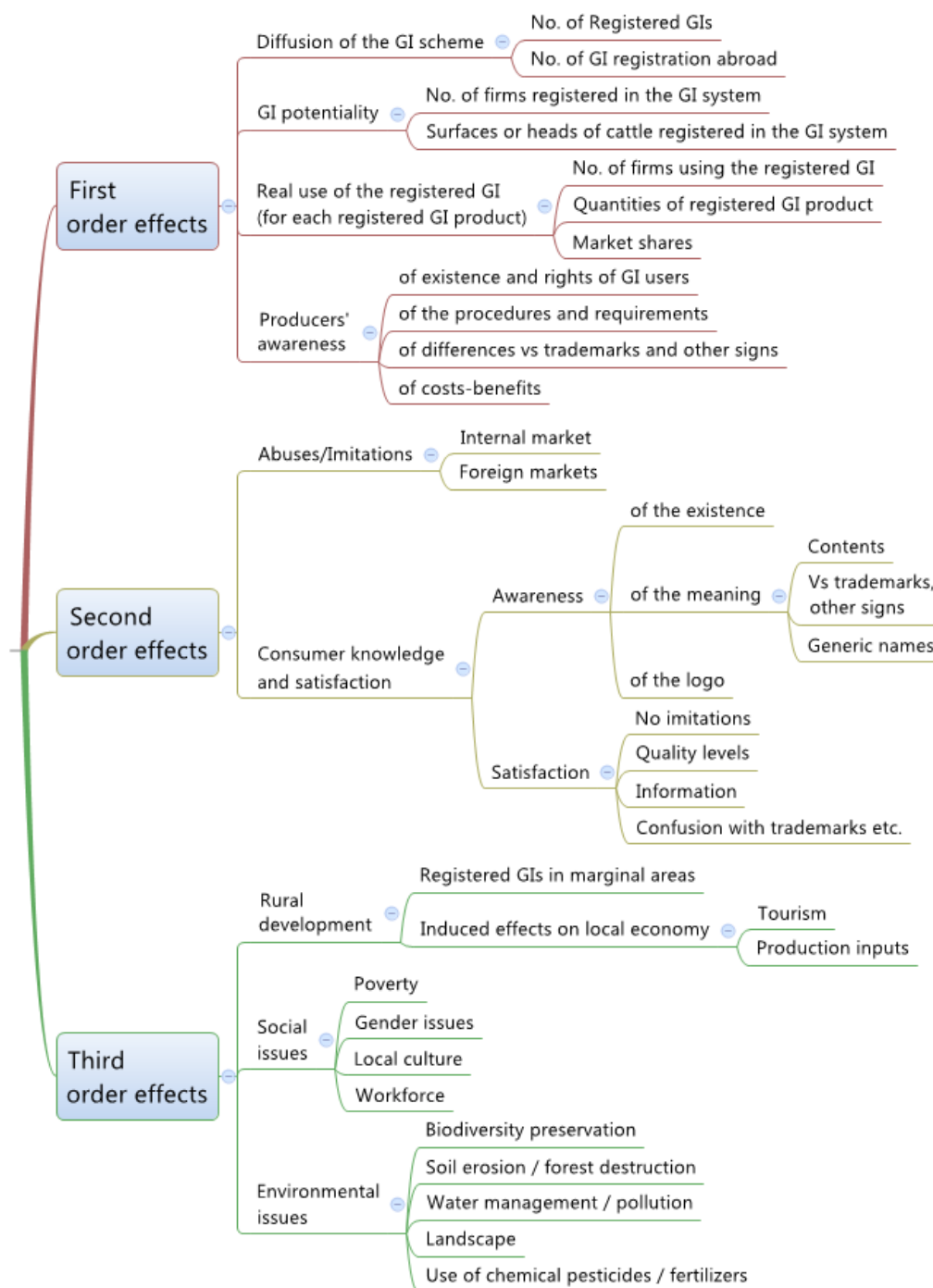
The analysis and evaluation of the GI framework could be extended to administrative and judicial procedures in order to understand if they succeed at both guaranteeing a correct registration procedure (including opposition procedures) and enforcing effective protection from misuses and abuses, all the while taking the required costs into consideration. It could also be assessed over time whether the GI framework lacks clarity and is incomplete. To what extent the beneficiaries of the system, in particular producers and consumers, are really aware of the meaning of GIs can also be assessed, as well as how much they profit from the GI framework.

Data and information required for evaluation of the GI framework can be collected using extensive and centralised data-collection processes (usually a few data collected for each GI of a country), as well as the aggregation of results from in-depth analysis of different GIs managed locally by means of a standardised method.

The full deployment of the GI framework's expected effects is linked to many important factors, some being "internal" to the GI framework itself. In order to better understand the effectiveness of the GI framework, other elements shaping the GI legal framework accessibility and performance could be analysed, such as:

- *Clarity and completeness of the GI framework.* Do stakeholders and internal staff understand the laws and regulations for implementation? Are they sufficiently clear? Is the normative framework complete and covering all possible situations?
- *Information and awareness of the GI framework.* To what extent are stakeholders aware of the existence of the scheme, the procedures to apply for protection, and the benefits of the scheme?
- *Efficiency and effectiveness of the GI registration procedure.* Do all stakeholders have an interest in developing the GI and rights to participate in the process? Is the application procedure clear enough and accessible to all stakeholder categories? Are the opponents' rights sufficiently protected? Is the procedure short enough to allow registration within a reasonable period of time?
- *Enforcement.* Are GI holders' rights sufficiently guaranteed? Are there imitations and misuses of the GI on the market? What are the obstacles to activating the procedure?
- *Assets devoted to the GI framework implementation.* Particularly important are the information and competencies of the staff devoted to following the application procedures and their enforcement.

Scheme 4.1 Effects of the GI framework establishment



Source: Authors' findings

Not all of these effects are really expected by the actors who are in charge of setting up a GI framework. The range of expectation depends on the specific political and economic context, on the position of the actors promoting the establishment of a GI framework and those in charge of administering the GIs, etc. (see Table 4.1 for a specific case).

Table 4.1 Expected effects from Jamaican GI legal framework

FIRST ORDER EFFECTS	
Diffusion of the GI Scheme	Some applications for GI registration are expected, following the first three GIs currently in the registration process (July 2011): Blue Mountain Coffee, Jamaica Rum, Jamaica Jerk). The possibility of registering Jamaican GIs in other countries is a very important, expected effect as well.
GI potentiality	So far, neither a significant increase in the number of firms involved with the three GI products nor an important incentive for the agricultural phase (production of raw materials) is expected.
Real use of the Registered GI	In the future, the number of firms using the Registered GI is expected to be higher than the number of firms currently using certification marks or collective trademarks that refer to geographical names.
SECOND ORDER EFFECTS	
Abuses / imitations	One of the most important effects is expected to be a strong reduction in abuses / imitations.
Producer awareness	Not mentioned by local actors.
Consumer awareness and satisfaction	National and foreign consumer awareness and satisfaction in GI scheme, in both the intermediate and final market, are important expected effects.
THIRD ORDER EFFECTS	
Rural development	No specific expectations; only spillover effects are expected due to an increase in incomes generated by GI registration.
Social issues	Stakeholders mention no specific contribution from GIs. Spillover effects can be expected on social issues, particularly in small areas specialised in GI production.
Environmental issues	No specific expectations; only spillover effects are expected due to an increase in incomes generated by GIs. No potential RGI products have been mentioned as linked to very specific local biological resources or to very specific traditional farming systems.

4.2 Possible indicators for monitoring

The different categories of effects from the GI framework should be monitored using specific indicators. The indicators' role is crucial in monitoring and evaluating activities. Some issues concerning indicators will be discussed in the following sections.

In the below tables, examples of rough indicators are proposed for each of the main areas. Please note that these lists are only examples. The choice of indicators and their full definitions can only be made on a case-by-case basis, and:

- according to the specific aims of the evaluation and stakeholder expectations;
- considering specific features of the GI framework;
- taking into account available financial and human resources for the evaluation.

The proposed indicators in the tables are rough; they require fine-tuning in accordance with the characteristics of each product, the available data, and so on. Each indicator requires specific data collecting methodologies, and in some cases specific enquiries on statistical samples are needed. Besides, some indicators are built on the basis of primary data and a predetermined scale.

As a consequence, the choice of indicators to be used in empirical evaluation activities is only one step in a more general process of monitoring and evaluation, which is presented in the next sections.

The indicators below are only part of a wide-ranging list. Indeed, other indicators can be calculated as an aggregation of single Registered Geographical Indications (RGIs) product data.

EFFECTS OF GI FRAMEWORK: possible indicators

FIRST ORDER EFFECTS

Main area	Unit	Rough indicator
1.01 Diffusion of the GI Scheme at national scale		
	No.	Applications for the GI registration
	%	Applications for the GI registration / Potential
	No.	National GI registrations
	%	National GI registrations / No. of applications for the GI registration
	No.	Number of failures in the registration process

No.	GIs registered at international level
No.	Countries with registered GIs
...	...

1.02 GI Potentiality (All registered GIs in a country)

No.	Total firms registered in the RGI producers' directory
%	Total firms registered in the RGI producers' directory / Total firms which could be registered in the RGI producers' directory (potential RGI firms)
No.	Registered agricultural firms (raw material producers, if any)
%	Registered agricultural firms / Total agricultural firms
No.	Registered processors
%	Registered processors / Total processors
No.	<i>Repeat for all the relevant phases</i>
%	<i>Repeat for all the relevant phases</i>
Ha	Surface area under GI scheme
%	Surface area under GI scheme / Total cultivated surface area
Ha	Surface area under GI scheme, per type of cultivation
%	Surface area under GI scheme per type of cultivation / Total cultivated surface area per type of cultivation
No.	Cattle heads under GI scheme
%	Cattle heads under GI scheme / Total cattle heads in the area
...	...

1.03 Real use of the registered GI

No.	Firms using the GI
Kg/Tons	Quantities of GIs sold
\$	Value of GI products on the final market
\$	Value of GI products, at the gate of GI production system (producer prices)
%	Share of the GI products (at farm gate level) of agricultural production value
%	Share of the GI products of the final food consumption market value
...	...

1.04 Producer awareness

	<i>(Of the GI existence; of the meaning and the logo)</i>
No.	Farmer awareness
No.	Farmer association awareness
No.	Processor awareness
No.	Processor association awareness
%	<i>Share of total (farmers, processors ...)</i>
...	...

SECOND ORDER EFFECTS

Main area	Unit	Rough indicator
2.01 Abuses / imitations		
	No.	Total cases of abuses-imitations in country of origin
	No.	Sanctioned abuses-imitations in country of origin
	%	Sanctioned abuses-imitations in country of origin / Total cases of abuses / imitations in country of origin
	No.	Total cases of abuses-imitations abroad
	No.	Sanctioned abuses-imitations abroad
	%	Sanctioned abuses-imitations abroad / Total cases of abuses / imitations abroad
	No.	Ceased abuses after the registration

2.02 Consumer awareness and satisfaction		
		<i>(in both intermediate and final markets)</i>
		<i>(of the GI existence; of the meaning, logo, and quality)</i>
	Index	Final national consumer awareness and satisfaction
	Index	Final foreign consumer awareness and satisfaction
	Index	National retailer-buyer awareness and satisfaction
	Index	Foreign retailer-buyer awareness and satisfaction

In addition, other indicators can be calculated as an aggregation of single RGI product data --> See indicators at the product level (Section 5).

THIRD ORDER EFFECTS

Main area	Unit	Rough indicator
3.01 Rural development		
	No.	RGIs located in marginal rural areas
	%	RGIs located in marginal rural areas / Total GIs
	Index	Relationships between RGI product system and other local economic activities

3.02 Social issues		
	No.	Poor farmers participating in the RGI system
	No.	Women participating in the RGI system
	Index	RGI product links to local culture
	Index	Labour (children, undeclared workforce, work conditions, etc.)

3.03 Environmental issues		
	No.	RGIs based on specific biological resources
	%	RGIs based on specific biological resources / Total RGIs
	No.	RGIs incorporating specific environmental-friendly rules in the CoP
	%	RGIs incorporating specific environmental-friendly rules in the CoP / Total RGIs
	Index	Level of chemical pesticide and fertilizer use
	Index	Water pollution

In addition, other indicators can be calculated as an aggregation of single RGI product data -->See indicators at the product level (Section 5).

5 The effects of GI registration on GI systems

5.1 The typology of effects

Scheme 5.1 shows the different potential levels and areas of the expected effects of a GI registration.

“*First order effects*” are the immediate outputs of the GI registration, and measure the level of use of the registered GI inside the OP production system. They often serve as the main indicators of GI “success”: the underpinning hypothesis is that – *ceteris paribus* – firms will use the GI if they appreciate its contribution to their strategy and economic performance.

Indeed, many effects come from the use of the GI in the Origin Product system and at a wider level. “*First order effects*” should be considered as the basis of two main categories of effects.

“*Second order effects*” are the outcomes generated by the introduction and use of the registered GI on three different levels:

- on the structure of the GI system;
- on (direct) economic performance of the GI system;
- on consumers and final markets.

In this broad area of effects, the main motivations of local firms for adopting the GI, and of public institutions for promoting the GI, are normally identified and the “success” of the GI registration appreciated.

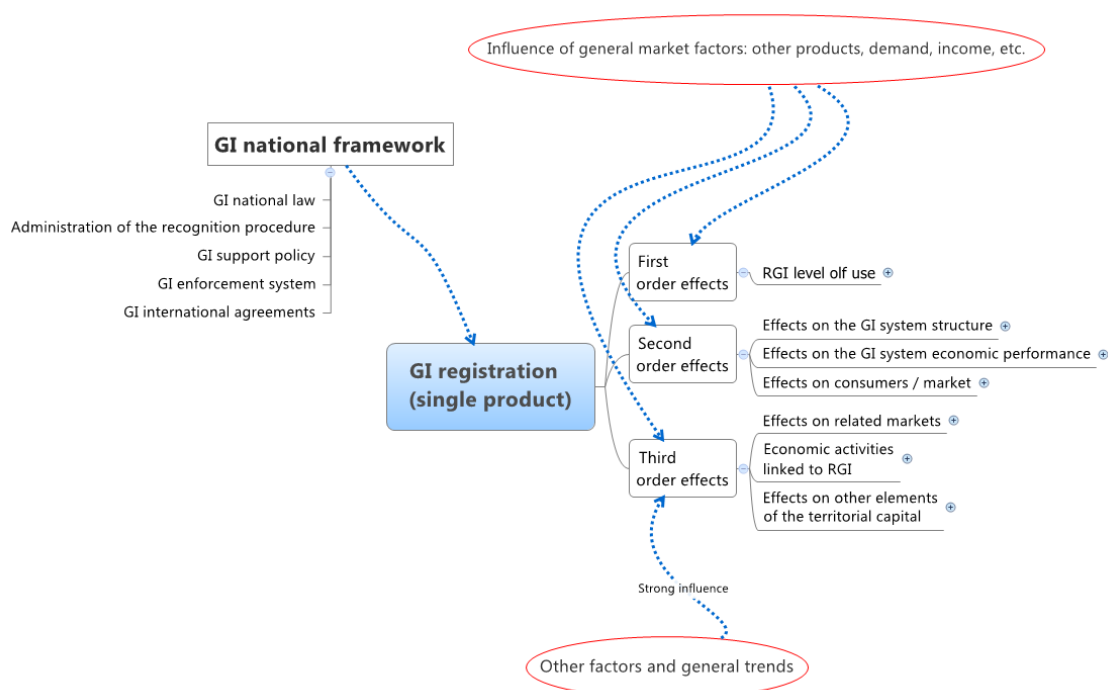
“*Third order effects*” are the impacts of the GI registration coming from the strict interconnection of the OP and GI systems with many material and immaterial local resources, and with other economic activities inside the local system:

- economic sectors/activities outside the GI production system;
- other elements of local territorial capital such as biodiversity, other components of the local environment (including soil and landscape), cultural capital, and social capital.

In many economic impact evaluation studies, the social and environmental effects are considered as (positive or negative) externalities, which are unintended effects. On the contrary, in the case of GIs, the effects on society and the environment may be considered as intended ones (and – in some cases – they are one of the most important motivations for registering a GI), so they should be an integral part of the evaluation.

Moving from first order to second and mainly third order category of effects, the real relevance of the GI registration decreases when compared to other factors. The *chains of causality* become more complex between the introduction and use of the GI on the one side, and the different categories of effects on the other. As a result, it is increasingly difficult to understand which role is played by the registration and the use of the registered GI. In other words, the difficulties of isolating the effects of the GI registration and its use by firms from the influence of other pressures (i.e. changes in global market conditions, local public policies, and marketing strategies) increases at both global and local levels.

Scheme 5.1 Different potential levels of effects resulting from a GI registration



Source: Authors' findings

5.2 First order effects

5.2.1 RGI level of use

A first indicator of the registration's "success" is the level at which firms use the RGI. In fact, if a firm decides to adhere to the registered GI system and comply with the CoP, and subsequently uses the RGI in selling its product, it expects in the short term, and evaluates in the medium term, the RGI as a useful tool with regard to either some aspects of its product valorisation strategy or to its more general marketing strategy.

Measures of the “success” or “failure” of the GI registration are represented by the number of firms complying with the CoP and making use of the RGI, together with their share of the total number of firms that could comply with the CoP (firms producing the Origin Product inside the boundaries of the delimited territory). The evolution of these indicators should be monitored over time.

Firms recognised as able to produce and mark the product with the official designation⁴ are considered as registered in the RGI producers' directory. However, not all of them make effective use of it. For example, depending on the relative costs and benefits, firms can decide to use the RGI for only part of the total OP production volume, or for only part of the available raw material needed to produce the RGI product. Not all of the production certified as RGI may be sold as “RGI product”, due to negative market trends or economic considerations (negative cost-benefit balance).

The potential production of the RGI product should be calculated considering all land (or, as an example, all cattle heads) of the firms registered in the GI.

The integrative measures of the RGI's “success” or “failure” are the volume of product branded and sold with the RGI, its share of the total volume of production complying with the CoP, and how this evolves over time.

The above-mentioned measures should be broken down:

- into the different sectors (or phases) of the supply chain, e.g. farming, processing, etc.
- within each sector, considering the degree of GI use by relevant sub-components of each sector, e.g. the “artisanal” and the “industrial” processing sector, small and big farmers, etc.

In fact, the level of RGI use may not be homogeneous due to some adverse selection effects generated by the CoP rules (which set up different costs and benefits for firms with different characteristics), or other relevant factors such as market conditions, access to information, and scale economies.

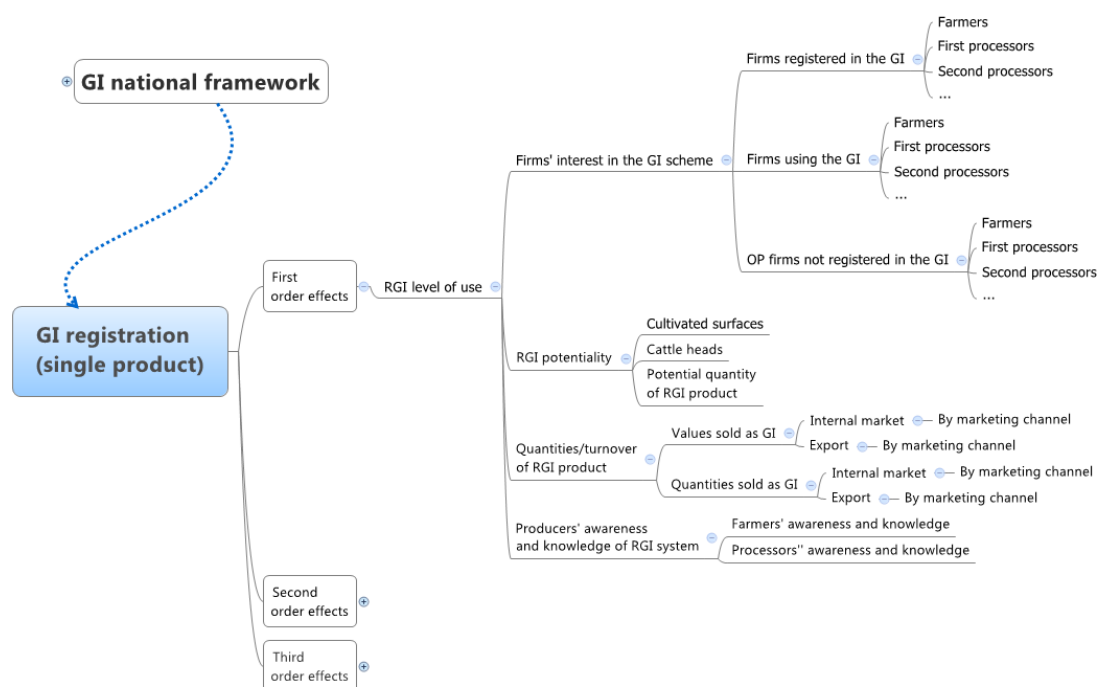
RGI products may be sold in different markets and via different marketing channels. If such an approach is taken, a differentiation between local, regional, national, and international markets should be made. The same principle applies for the main marketing channels – direct, short and long channels; traditional and modern channels; and so on.

Producer awareness and knowledge of the RGI could help understanding the firms' use of the RGI, at the different stages of the supply chain like farming and processing.

⁴ Very often, firms that comply with structural requirements of the CoP and have the right to use the RGI are listed in a list, the “RGI producers' directory”, which is normally held by the RGI control body.

Awareness and knowledge could be measured with reference to the existence of the RGI; the general meaning and specific content of the CoP; the logo, if any; and specific features of the functioning RGI system (what firms have to do, certification mechanisms, administrative burdens, etc.).

Scheme 5.2 RGI: potential first order effects



Source: Authors' findings

5.3 Second order effects

5.3.1 Effects on the structure of the GI system

The GI registration may affect the very structure of the GI system (see Scheme 5.3 for an overview).

First, the GI registration may lead to new firm entries in the RGI system, including both firms coming from outside and newly formed (local) firms.

The CoP rules normally lead to some kind of *exclusion* (firms outside the defined geographical boundaries; firms not able to comply with the technical requirements of the production process or the minimum product quality). In the situation of the GI system lacking definition and not being well specified, the registration will lead to a more de-

fined delimitation of the system, although fluctuating in time (firms can decide whether or not to use the registered GI). The structure of the registered GI system can therefore differ from the overall GI system, the former being only a part of the latter.

Regarding the registered GI system, a first expected effect of the GI registration affects the system's *organisation*. In many cases, the decision to activate the application process with the national authority acts as a stimulus to build up or reinforce the organisation of local producers. Some GI legal frameworks ask that a collective body representative of the RGI system present the application. Even after the registration, a collective organisation is generally needed to collectively manage many aspects of the RGI's functioning, from technical and administrative issues to collective marketing and promotion. The evolution of the number of firms deciding to adhere to the collective body charged with the management of the RGI is but one of the possible indicators to be monitored. In addition, specific activities carried out by the collective body could be monitored, such as promotional activities in different markets or technical assistance provided to firms.

Another area of expected effects deals with the degree of horizontal and vertical *coordination among firms* along the supply chain. The GI registration often reinforces vertical coordination among them – in different forms such as contracts, joint ventures, inter-professional agreements, and pure vertical integration. Horizontal coordination may be reinforced as well, in the form of cooperatives, producers' associations, etc. In general, the geographical proximity of economic and social activity helps to reduce transaction costs between firms thanks to trust, norms, conventions and implicit and explicit rules of action between local actors. For these reasons, it is not easy to find indicators about the effects of the GI registration on coordination issues.

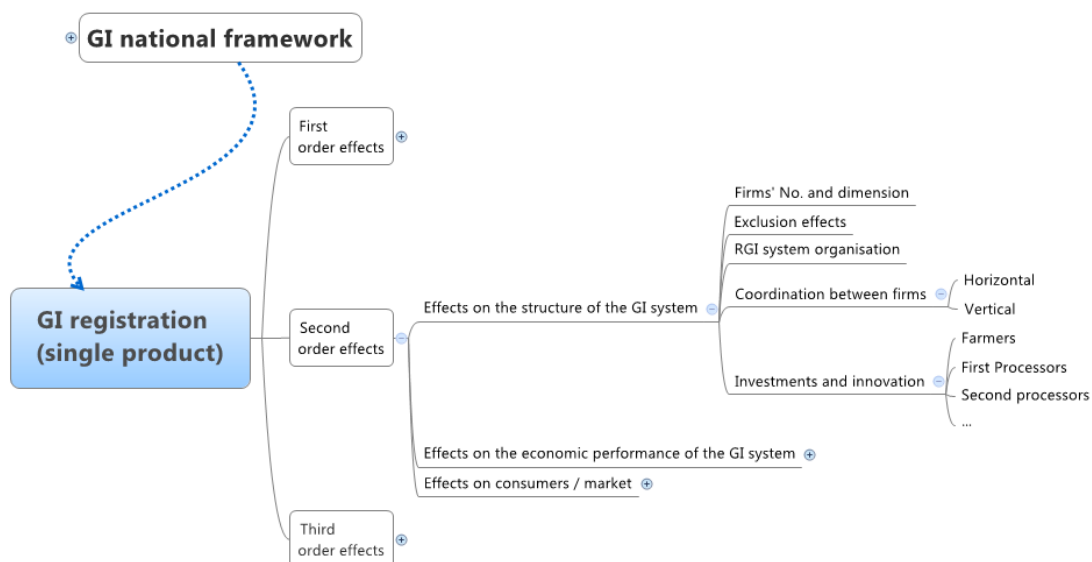
The level of investments may be affected by GI registration, depending as well on the contents of the CoP and the type and dimension of specific investments needed to comply with it. Overall, investments made by firms involved in the supply chain, coupled with investments in infrastructure and structural facilities at the local level, may prompt – and be prompted by – the market “success” of the GI registration. The definition of common rules for the GI product via the CoP, thus limiting the possibility of opportunistic and unfair behaviours, can create incentives to invest in communication and promotion, at the scale of both a single firm and a collective production system. This can benefit the knowledge and reputation of the RGI product on the market, and also reinforce incentives to invest in production-related projects.

GI registration may also prompt *innovations*. This is a particularly delicate aspect to be monitored – not only the kind of innovation introduced (i.e. organisation, equipment, technical, quality control), but also the extent that the innovation may affect the product's specificity, leading to a loss of the RGI product's characteristics or its “typicity”. The typicality of an agricultural or food product is a characteristic belonging to a category of products that can be recognised by experts or connoisseurs on the basis of the specific attributes common to such products. Typicality expresses the possibility of distin-

guishing an origin-linked product from other similar or comparable products. It includes a degree of internal variability within the category, but such variations do not compromise its identity. These category properties are described by a set of characteristics (technical, social, cultural) identified and defined by a human reference group, based on know-how distributed among the various stakeholders in the value chain: producers of raw materials, processors, regulators and consumers.

The firm's operational logic can be changed by the transition from informal to more *formal logics* required by certification and administrative procedures, especially with respect to quality assurance and hygienic and sanitary rules.

Scheme 5.3 RGI: potential effects on the structure of the GI system



Source: Authors' findings

Another expected effect of the GI registration results from the changes brought to the *average dimension of the firms* in the RGI system. Here, the questions are: does GI registration along time change the dimensions of local firms? And, is there any monopolistic or oligopolistic behaviour? In some cases, a sort of *barrier to growth* can be established by the strict rules of the CoP, thus preventing firms from growing over a certain size.

From a commercial point of view, expected positive effects of GI registration may foster a *re-localisation* of some economic activity and keep more added value in the hands of local producers. This in turn guarantees a positive effect on employment and income, as well as greater self-reliance, autonomy, and control in the hands of local stakehold-

ers. These are often the aims that lead public administrations to support GI registration and its use by firms.

5.3.2 Effects on the economic performance of the GI system

The general *economic performance* of the GI system can be altered with the introduction of the GI registration. Normally, the most important expected effect of the GI registration is the increase of producers' income (producers such as farmers, processors, and distributors). At the same time, economic effects on firms belonging to the Origin Product system but not complying with the RGI CoP have to be considered.

At the firm level, *income* over time is a result of the delta between the amount of the value (price per quantity) of product sold and the costs of producing it. The analysis should include consideration of the effects on non-RGI firms' business, as well as the effects on firms not able to comply with the CoP rules at production system level.

Focusing on the RGI side of the income, the effect is given by the *difference between RGI turnover and RGI costs*. RGI turnover is affected both by price levels and quantities sold. It is quite common for most operators to focus only on the price level as an index of the "success" of the GI registration. Evidently, the price of the RGI product sold is but one of the variables to be kept under observation, and higher prices do not necessarily lead to increases in income.

Expected *price premiums* are often achieved, but they have to be compared to prices of similar and relevant products. Depending case by case, that is: the price of other RGI products of the same category; the price of non-RGI product (in local or other markets); and the prices in specific markets that are really accessible for local producers.

Also, *production costs* could change due to the use of the RGI (Belletti and Marescotti, 2007). The more evident type of costs, and the easiest to calculate, are control and certification costs paid to a potential Certification Body⁵. However, the compliance with the logic of certification and with the rules of the CoP generate additional costs: adaptation of the production process (e.g. new equipment required by the CoP to keep separate RGI and non-RGI production processes inside the same firm); implementation of the certification system with new competencies and skills to be acquired and modification in administrative routines; administrative burdens (time to fill forms); and fees for participating in compulsory organisations (Belletti and Marescotti, 2006).

Some increases in the cost of variable or fixed inputs could occur because the CoP may ask for higher-quality raw material and other inputs, and/or create monopolistic market conditions on fixed production factors, typically the land.

⁵ The certification body is responsible for providing certification and is sometimes referred to as the "certifier". It may be public or private, and is normally accredited and/or approved by a recognised authority.

Hence, the final effect on *firms' profitability*, both at the single unit and the RGI system level, is uncertain, and begs for a careful evaluation of many aspects.

The GI registration may act as a “key” to open both modern market and long-distance channels such as exports (Belletti, Burgassi et al., 2009). The registration's economic benefits may come from access to new geographical markets and new marketing channels, allowing for diversification and risk reduction. Also, business stability could be improved thanks to the RGI, resulting in marketing agreements or an increase in the reputation of the firms.

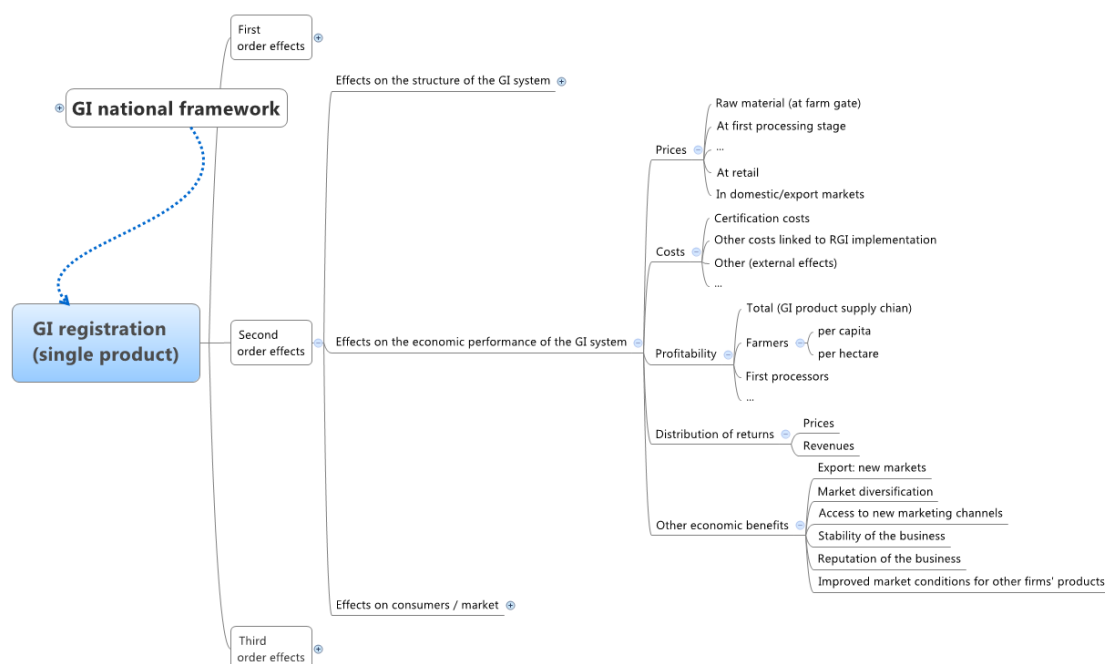
Notably, even if RGI production generates no increase in a firm's income, the presence of the RGI product in the firm's portfolio may boost the marketing of the firm's other products. In other words, the quality position of the RGI product may benefit the whole firm's production and reputation, allowing the firm to better market the rest of its production. The effect on profitability should not be considered for the RGI product alone, but rather enlarged to cover non-RGI products produced by firms using the RGI (reputation effects of the RGI on the whole firm, and on the whole local production system).

The issues of *horizontal and vertical distribution of the extra price*, extra costs and profitability are very relevant and controversial in RGI product literature (Reviron, 2009). The “territorial rent” may bring more benefit to big companies than to small producers, or to firms at downstream levels of the product supply chain than to raw material producers (farmers, or first processors). Besides, in the absence of control systems, or poor functioning of those in use, external or even internal actors can capture and usurp the acquired reputation of the RGI.

An increase of the RGI product price may lower prices of Origin Products endowed with characteristics very close to those of the “true” RGI products but produced by firms not able to comply with the official specifications of the CoP. This could mainly occur when RGI official registration systems introduce “modern” logics of quality assurance that do not fit with the more artisanal and non-professional part of the Origin Product production system.

The effect of the GI registration could be that of dividing the production system in at least two distinct sub-systems: one devoted to selling the RGI product on the “modern” market; the other to producing the Origin Product but without use of the official registered GI. This is due to the higher costs of compliance to CoP and the lack of a premium-price selling within short channels to local consumers.

Scheme 5.4 RGI potential effects on the economic performance of the GI system



Source: Authors' findings

5.3.3 Effects on market and consumers

Importantly, the effects of GI registration are due almost exclusively to consumer awareness of the specific quality of RGI products and their willingness to pay for RGI products. A high level of uncertainty permeates the food domain because food products can generally not be experienced before purchase, and retail distribution offers a huge number of choices. Official or non-official labels indicating product origin play a key role by guiding consumer choice with a positive feeling of reassurance. Such labels also offer quality guarantees, mainly if official control systems exist for the traceability and compliance of the product to the CoP.

The RGI's performance on the final and intermediate market is strictly related to the control of abuses and imitations, especially when the RGI product has a strong reputation and hence is widely imitated. The number of abuses and imitations of the geographical name, both in the country of origin and abroad, and the number of sanctioned abuses and imitations are the main indicators that could be used. The collection of these data should be done very carefully because the accuracy of the search for imitation, or a strengthening in the administrative effort for sanctioning abuses, can itself increase the value of the indicator. This data collection should be based on a standard enquiry method, such as monitoring the number of imitations in a constant sample of shops.

GI labels are often conceptualised as a decision-making aid for consumers. The labels reduce both the number of times consumers stop in front of shelves, and the time they spend holding products during their purchase-decisions. Moreover, an official designation on the product coincides with a willingness to pay a premium, a perception of enhanced quality, and overall preference.

An evaluation should be made of *consumer awareness*, in relevant countries and marketing channels, of the existence of a “true” RGI product, and to what extent the consumer recognises the RGI product as different from other competitors or even imitators. Questions to answer include:

- How important is the RGI on the product?
- What is the meaning of the RGI label on that product (what attributes does it guarantee/signal?) and on the perceived quality of the product inside the RGI product family? (Are all the RGI-labelled products of the same quality?)
- Does the consumer think the average quality has improved since the GI was registered?

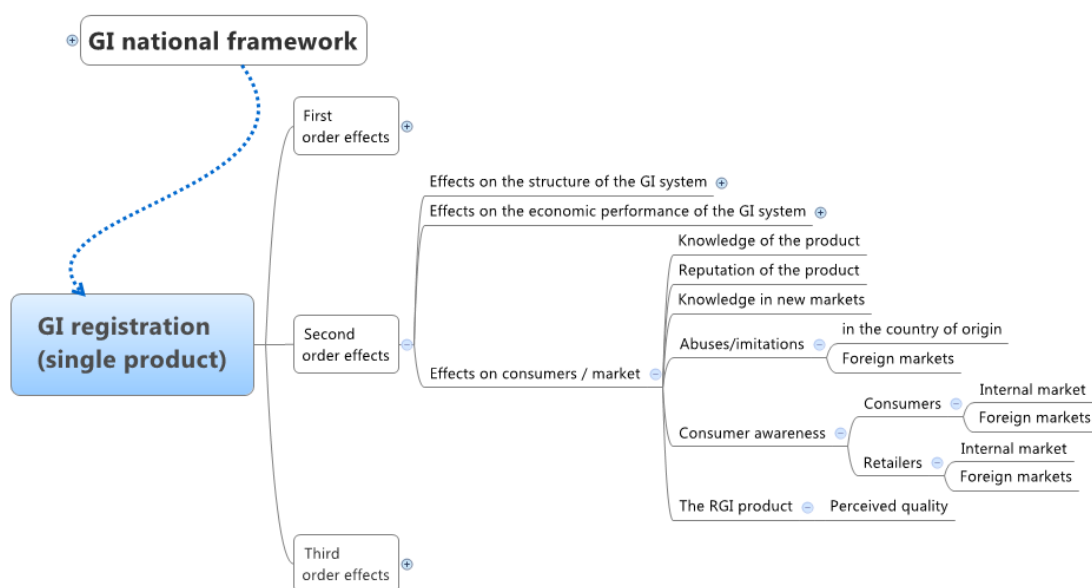
This evaluation should be made not only on the final market/consumer level, but also on the intermediate market level (wholesale and retail level).

The CoP can modify the quality and, over the years, the *identity* of the RGI product. The rules can increase the quality level of the raw material and the final product, and suggest some kind of traceability system, which normally is very appreciated by customers in modern marketing channels. At the same time, the rules of the CoP may lead to a standardisation of the RGI product, with a loss of the product’s more specific qualities. Again, some quantities of the raw material or of the final RGI product may not comply with the CoP.

In short, the registration of the GI affects the *quality* of the product and the perception of this quality by both final and intermediate consumers, and this could affect the identity and the reputation of the RGI product. Specific surveys on final and intermediate consumers could be made in order to evaluate these effects and support changes in the CoP or in the RGI collective communication strategy, should one exist.

See Scheme 5.5 for an overview of the effects on market and consumers.

Scheme 5.5 RGI potential effects on market and consumers



Source: Authors' findings

5.4 Third order effects

5.4.1 Effects on related markets

The registration of a GI and its effective use by firms may exert third order effects outside the strictly defined RGI production system.

The first and more obvious third order effects category consists of the effects on local markets of inputs needed by the RGI production system. In addition to the effects on raw materials (e.g., the milk for RGI cheese production), other markets are related to a lesser extent to the RGI production.

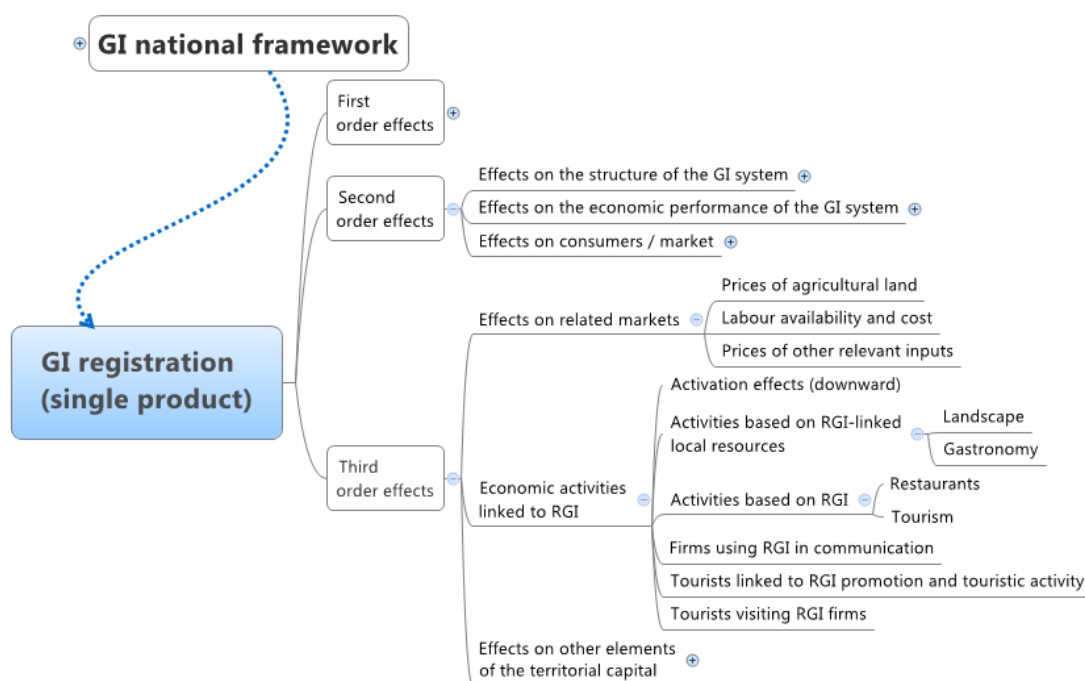
The RGI marketing success may increase the demand on some local inputs, for example packaging or energy inputs, and on the related markets with regard to production factors such as arable land or hired labour. Normally, these effects are not very significant except when RGI production is very predominant inside a specific geographical area, and they are difficult to measure; when the inputs are more generic, forces other than the GI registration will act to modify their market.

Specific effects can be identified in only some cases. This happens, for example, when the RGI supply chain needs production factors with specific characteristics, as in the case of arable land appropriated for high-quality grape production. When these factors

are very limited or set in their availability, higher prices for the RGI product increase the value of the fixed factor, creating a rent. If the farmer does not own the land, he or she must pay a higher rent for it.

If the input demand by the RGI production system is high in relation to total demand for that input in the area, a market success for RGI products (increase in quantity sold and/or prices) can induce an increase in input prices. This increase will be borne as well by other producers using this input but who are not dealing with the RGI and not benefiting from its better performance.

Scheme 5.6 RGI potential effects outside the GI production system



Source: Authors' findings

5.4.2 Effects on economic activities linked to RGI

The value and reputation associated with the Origin Product and reinforced by the GI registration may act as leverage for other stakeholders to activate or reinforce other economic activities, especially at local level and within the boundaries of the production system.

Local stakeholders can use the GI product, the specific local resources linked to it (local gastronomy, traditions, landscapes, etc.) and its reputation as tools to increase the competitiveness of the entire local social and economic system. They will benefit from

attracting consumers and tourists in the production area, and promoting a differentiated basket of local products and services based on the use of local resources.

As a result, other economic activities can be developed both by RGI producers and by other local firms such as hotels, restaurants, museums, and visits to the firms. These activities may be more or less strictly linked to the RGI image and its specific resources.

The development and promotion of a RGI product can initiate the development and promotion of the entire geographical heritage and of related products within a basket of goods. In addition to encouraging the economic development of other local activities, adding value through tourism can facilitate the collective promotion of a product and exploration of new marketing channels. In RGI wine products, some clear examples are the “wine routes” leading to and through major wine production areas (Brunori and Rossi, 2000).

In some situations, the main interest of local stakeholders for the GI registration is not due to the expected effects on the GI supply chain; rather, the stakeholders focus mainly on these “extended territorial effects” (Belletti et al., 2001).

The strength of the RGI registration effect is not easily assessed, and only in-depth though usually costly research can provide satisfactory evaluation, based particularly on qualitative methodology and participation of different stakeholders. Indirect evaluation might use some proxy-index depending on the local context and situation. The local tourism sector performance is normally too broad given the limited weight of the RGI product in the relevant geographical area; some more specific indicators that are more strictly linked to the RGI include the number of visitors in a specific local museum, or the number of tourists visiting the RGI firms.

5.4.3 Effects on other elements of the territorial capital

GI systems are often strictly interconnected with many “non-economic” local resources such as biodiversity and other components of the local environment (soil, landscape, etc.), as well as with cultural and social capital.

For some GIs, the effects on society and the environment are an important motivation for the GI registration process. These effects should also be considered as an integral and important part of the evaluation (Belletti et al., 2001; Tregear et al., 2007; Belletti, Hauwuy, Marescotti, Paus, 2008).

With some RGI products, the link is explicit and clear, as in cases where the product comes from a specific local breed or variety. The effects over the genetic resource of the GI registration and market success can be positive or negative, and they also depend on how the rules in the Codes of Practice are written (Larson, 2007).

Very complex chains of causality exist with other RGI products, and it is increasingly difficult over time to understand the role of GI protection. Besides, the evaluation of these effects is usually very costly, and it should be done only when there are real expectations about the presence of these effect categories.

For this reason, the preliminary step in the analysis of the effects on territorial capital is the *analysis of the relevance* between the RGI and the different elements of the territorial capital. This analysis should answer some preliminary questions:

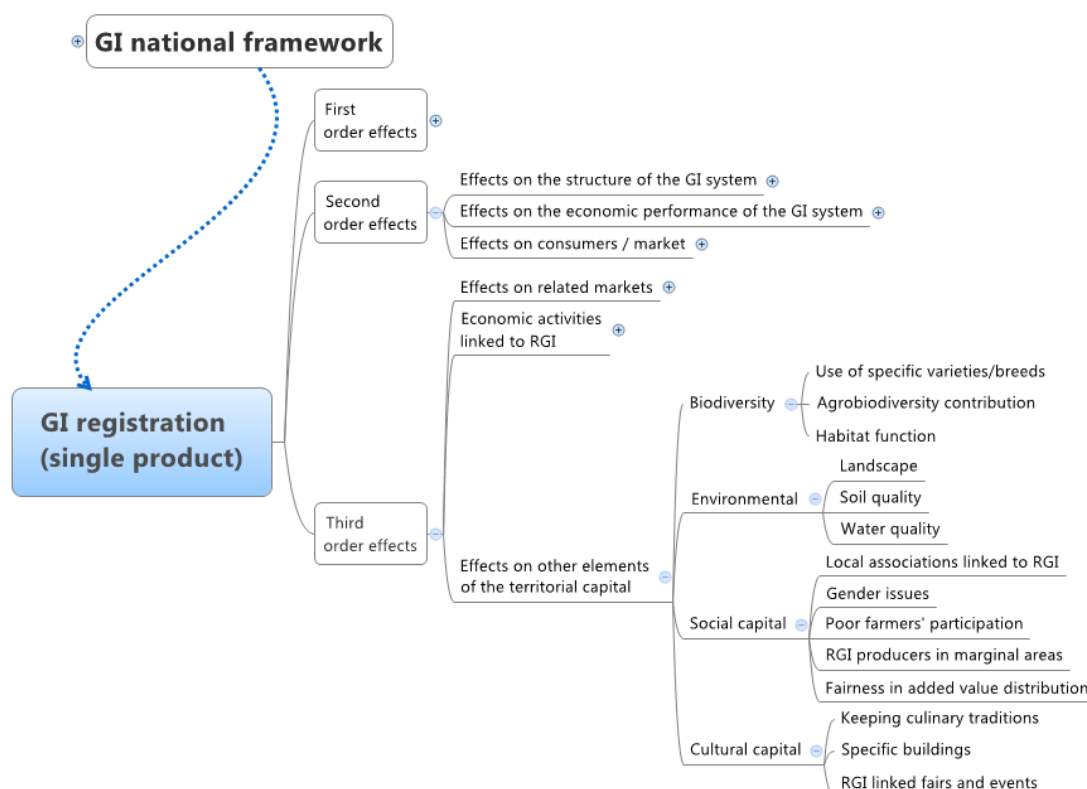
- Are there any specific local resources used in the RGI production process? (e.g. local, specific biological resources)
- What is the relevance of the RGI cultivated area compared to the total cultivated area, or to the total surface of the relevant region? (A very low ratio indicates a limited potential effect of the RGI over widespread resources, such as water.)
- Are there particular elements, or other special relationships with local resources? (e.g. local traditions, fairs, specific habitats)

If one or more of these questions can be answered positively, a deeper analysis should be made to highlight chains of causality and identify possible areas of impacts.

The impact analysis can be done by referring to specific methodologies used in this domain, such as the DPSIR approach⁶ (Drivers-Pressures-State-Impact-Response) or similar methodologies.

⁶ The OECD (Organisation for Economic Co-operation and Development) proposed the DPSIR approach; it is very often used in environmental analysis. As stated by the European Environment Agency (EEA), the DPSIR approach can encourage and support decision-making by indicating clear steps in the causal chain where the chain can be broken by policy action. The DPSIR represents a systems analysis view: social and economic developments exert pressure on the environment and, as a result, the state of the environment changes. This leads to impacts on, for example, human health, ecosystems and materials that may elicit a societal response feeding back on the driving forces, on the pressures or on the state or impacts directly, through adaptation or curative action. See for example: http://root-devel.ew.eea.europa.eu/ia2dec/knowledge_base/Frameworks/doc101182.

Scheme 5.7 RGI potential effects on other elements of the territorial capital



Source: Authors' findings

5.5 Possible indicators for monitoring GI effects

Specific indicators should be used to monitor the effects of the registration of each single GI. The following tables propose some examples for each of the main areas. Once again, the choice and the full definition of indicators have to be made case by case and:

- according to the specific aims of the evaluation and stakeholder expectations;
- considering specific features of single RGI product production process, production system, supply chain, etc.;
- taking into account available financial and human resources for the evaluation.

All proposed indicators have to be considered as rough indicators, and have to be fine-tuned according to the characteristics of each product, the data available, financial and human resources, etc. Each indicator requires specific data collection methodologies, and in some cases specific enquiries on statistical samples are needed. In addition, some indicators are indices built on a predetermined scale on the basis of primary data.

EFFECTS OF THE GI REGISTRATION: possible indicators at single GI system level

FIRST ORDER EFFECTS

1 RGI use

Main area	Unit	Rough indicator (to be fine-tuned case by case)
-----------	------	---

1.01 Firms' interest in the GI scheme

No.	Firms registered in the RGI producers' directory
%	Firms registered in the RGI producers' directory / Total firms potentially complying with CoP
No.	Firms using the RGI producers' directory
%	Firms registered in the RGI producers' directory / Firms using the RGI
No.	Agricultural firms registered in the RGI producers' directory
%	Agricultural firms registered in the RGI producers' directory / Total agricultural firms potentially complying with CoP
No.	Agricultural firms using the RGI
%	Agricultural firms registered in the RGI producers' directory / Agricultural firms using the RGI
...	<i>Repeat for all the relevant phases of the GI production process</i>
...	...

1.02 RGI potentiality

Ha	Surface area under GI scheme
%	Surface area under GI scheme / Total cultivated surface area in the geographical area as defined by the CoP
No.	Cattle heads under GI scheme
%	Cattle heads under GI scheme / Total cattle heads in the CoP area
Kg/Tons	Potential quantity of RGI product (surface or heads under the GI scheme, per standard yield)
...	...

1.03 Quantities / turnover of RGI product

Kg/Tons	Quantities of RGI product
Kg/Tons	Quantities of RGI product sold
%	Quantities of RGI product sold: distribution per relevant marketing channel (direct, short and long channels; traditional and modern channels; etc.)
%	Quantities of RGI product sold: distribution per geographical market (local, regional, national and international)
Kg/Tons	Quantities of RGI product not sold as RGI
%	Quantities of RGI product / Potential quantity of RGI product
%	Quantities of RGI product sold / Potential quantity of RGI product

\$	Turnover of RGI product on the final market
%	Turnover of RGI product on the final market, distribution rate per relevant marketing channel (direct, short and long channels; traditional and modern channels; etc.)
%	Turnover of RGI product on the final market, distribution rate per geographical market (local, regional, national and international)
\$	Turnover of RGI product for the whole RGI production system (ex farms/factories price)
%	RGI product's share (ex farms/factories price) of the market value of the total Origin Product production (both RGI and non-RGI)
%	RGI product's share of the final consumption market value
...	...

1.04 Producer awareness and knowledge of the RGI

Awareness and knowledge about: the GI's existence; its meaning and the content of the Code of Practice; the logo (if any); the functioning of the system (firms' role(s), certification mechanisms, etc.)

Index	Farmer awareness and knowledge
Index	Farmer association awareness
Index	Processor awareness
Index	Processor association awareness
...	...

SECOND ORDER EFFECTS

2 Effects on the structure of the RGI system

Main area	Unit	Rough indicator (to be fine-tuned case by case)
-----------	------	---

2.01 Number of firms and their dimensions

No.	New agricultural firms resulting from the GI registration
No.	New processing firms resulting from the GI registration
\$ / Ha	Average dimension of the RGI agricultural firms
\$ / Ha	Average dimension of the RGI processing firms
...	...

2.02 Exclusion effects

No.	Number of firms which could use the RGI based on the CoP, but do not use the RGI after five years, in different supply chain sectors
No.	The same as above, but calculated for relevant categories of firms in the RGI system (<i>small firms, artisanal firms, marginal-area firms, etc.</i>)
%	Total firms registered in the RGI producers' directory in different supply chain sectors / Total firms in the RGI area in different supply chain sectors

% The same as above, but calculated for relevant categories of firms in the RGI system (*small firms, artisanal firms, marginal-area firms, etc.*)

... ..

2.03 Organisation of the RGI system

0/1 Presence of collective body representative of the RGI

No. Number of the collective body's member firms

No. Number of the collective body's member firms, for agricultural firms, processing firms, etc.

% Number of the collective body's member firms / number of firms that use the RGI

% Number of the collective body's member firms, for agricultural firms, processing firms, etc.

\$ RGI Collective body's advertising and promotional expenses

\$ RGI Collective body's expenses for technical assistance to members

\$ Other expenses of the RGI Collective body for RGI-related activities

... ..

2.04 Coordination among firms in the RGI system

No. Number of cooperatives inside the RGI area that work on the RGI product

No. Number of firms belonging to these cooperatives

% Number of firms belonging to cooperatives / Total firms in the area (comparable)

0/1 Presence of vertical coordination contracts in the RGI supply chain

No. / % Level of use of vertical coordination contracts

... ..

2.05 Investments and innovation in the RGI system

\$ Investments made by agricultural firms to comply with the CoP, by type

\$ Investments made by processing firms to comply with the CoP, by type

\$ Other investments made by agricultural firms in connection with the RGI, by type

\$ Other investments made by processing firms in connection with the RGI, by type

No. Number of "new" products introduced (based on the RGI product)

No. Quality control innovations

No. Organisational innovations

No. Technical innovations

N.B.: investments made at collective level (collective body) are calculated in Section 2.03

... ..

3 Effects on the economic performance of the RGI system

Main area Unit Rough indicator (to be fine-tuned case by case)

See also Section 1.03: RGI quantities / values

3.01 Prices

\$	Of the raw material (at farm gate), per unit
\$	At the first processing stage, per unit
...	...
\$	At retail stage, per unit
\$	Prices for different quality levels / RGI product typologies
\$	In domestic market
\$	In export markets (if relevant, for main foreign markets)
\$	Comparator: price of similar, non-RGI product, raw material
\$	Comparator: price of similar, non-RGI product at the first processing stage
...	...
\$	Comparator: price of similar, non-RGI product at retail stage
\$	Comparator: price of similar, non-RGI product in domestic market
\$	Comparator: price of similar, non-RGI product in export markets (if relevant, for main foreign markets)
%	RGI / Comparator price of raw material
%	RGI / Comparator price at the first processing stage
%	RGI / Comparator price in export markets (if relevant, for main foreign markets)
%	RGI / Comparator price at retail stage
%	RGI / Comparator price in domestic market
%	RGI / Comparator price, ...
\$	Price of the raw material inside the GI area, but not complying with the CoP
\$	Price of the Origin Product produced inside the GI area and similar to the RGI product, but not complying with the CoP
...	...

3.02 Costs

\$	Certification costs paid to certification body (fees)
\$	Control and certification system's bureaucratic / administrative costs
\$	Costs for adapting production structures / process to CoP requirements
\$	Costs of joining producer associations (fees)
\$	Costs for specific inputs (raw material and land, among others)
...	...

3.03 Profitability

\$	Profit per unit of raw material
\$	Profit per unit of final product
%	RGI / comparator, profit per unit of raw material
%	RGI / comparator, profit per unit of final product
\$	RGI producer income: farmers
\$	RGI producer income: processors
\$	RGI producer income: traders
...	...

3.04 Distribution of economic performance

%	Distribution of final price along the supply chain (RGI vs. comparator)
%	Distribution of quantities sold among different firms' typologies in each stage of the supply chain (RGI vs. comparator)
%	Distribution of returns among different firms' typologies in each stage of the supply chain (RGI vs. comparator)
...	...

3.05 Other economic benefits

No.	Access to new markets in the country
No.	Access to new export markets
Index	Market diversification – geographical (concentration index)
No.	Access to new marketing channels
Index	Marketing channels diversification (concentration index)
No. / %	Stability of the business: marketing contracts
Index	Reputation of the firm
Index	Improved marketing conditions for other products of RGI firms
...	...

4 Effects on markets and consumers

Main area	Unit	Rough indicator (to be fine-tuned case by case)
-----------	------	---

4.01 Abuses / imitations

No.	Total cases of abuses and imitations in country of origin
No.	Cases of sanctioned abuses-imitations in country of origin
%	Cases of sanctioned abuses-imitations in country of origin / Total cases of abuses-imitations in country of origin
No.	Total cases of abuses-imitations abroad
No.	Cases of sanctioned abuses-imitations abroad
%	Cases of sanctioned abuses-imitations abroad / Total cases of abuses-imitations abroad
...	...

4.02 Consumer awareness

Index	Final national consumer awareness
-------	-----------------------------------

Index	Final foreign consumer awareness
Index	National retailer-buyer awareness
Index	Foreign retailer-buyer awareness
...	...

4.03 RGI product quality and identity

Index	Quality level of the RGI raw material
Index	Quality level of the RGI product
Index	Traceability of the RGI product
Index	Standardisation of the RGI product
%	Product not complying with the CoP / Total RGI product
Index	Final consumer perceived quality of the RGI product
Index	Consumer perceived quality of the RGI product (intermediate markets)
...	...

THIRD ORDER EFFECTS

5 Effects on related markets

Main area	Unit	Rough indicator (to be fine-tuned case by case)
-----------	------	---

5.01 Effects on related markets

\$	Price of agricultural land
No.	Effects on local labour market: number of employees
\$	Effects on local labour market: salaries paid
\$	Value of input purchased by RGI firms on local markets
...	... <i>Other relevant specific related markets</i>
...	...

6 Effects on economic activities linked to RGI

Main area	Unit	Rough indicator (to be fine-tuned case by case)
-----------	------	---

6.01 Effects on economic activities linked to GI

\$/Index	Relevance of economic activities based on the RGI (hotels, other accommodation forms, restaurants, shops, etc.)
\$/Index	Relevance of economic activities based on specific resources of the RGI (landscape, gastronomic specialities, etc.)
No.	Number of local firms (outside the RGI supply chain) that make explicit reference to the RGI product or to related specific resources, in consumer communication
No.	Tourists in the RGI production area, linked to the RGI
No.	Number of tourists visiting RGI firms
No.	Number of tourists visiting RGI-related museums
...	...

7 Effects on other elements of the territorial capital

Main area	Unit	Rough indicator (to be fine-tuned case by case)
-----------	------	---

The potential link between the RGI and the below elements of the territorial capital should be carefully analysed because they are context-specific; hence, the indicators should be selected according to this framework.

7.01 Biodiversity

Index	Level of use of specific varieties / breeds
Index	Use of cultivation techniques beneficial to specific habitat conservation
...

7.02 Environment

Index	Impact on water quality
Index	Impact on water consumption
Index	Impact on water retention
Index	Use of cultivation techniques beneficial to landscape
Index	Use of cultivation techniques beneficial to soil quality
...	...

7.03 Social capital

Index	Local associations linked to the RGI
Index	Involvement of women in the RGI system
Index	Participation of marginalised farmers / producers
Index	Production of the RGI in "marginal areas" (no. of firms, surfaces/heads, turnover, etc.)
Index	Fairness of the added value distribution
...	...

7.04 Cultural capital

Index	Diffusion of culinary traditions linked to the GI
Index	Fairs / other events linked to the RGI
Index	Traditional buildings linked to the GI
Index	Cultural event linked to the RGI
...	...

6 Guidelines for Implementing a Registered GI System Monitoring and Evaluation Tool

6.1 The main steps in the process

Effects coming from the GI registration and firms' use of the GI are very complex, as clearly shown in the previous sections.

Monitoring and Evaluation (M&E) methodologies, organising activities, and management issues are strictly interrelated. In general, rather than being "perfect", an M&E tool should be:

- *scientifically grounded*, or built on a robust methodological hypothesis taking into account the current knowledge in the field of analysis;
- *workable*, that is, manageable and feasible on the basis of the local and regional context, and considering the specificities of the GI product under analysis. The required resources and costs, as well as the time needed for effects to be displayed, need to be taken into account. An equilibrium in the trade-off between costs of M&E and precision of the M&E activity should be reached;
- *effective*, with regard to the specific role given to the monitoring and evaluation in the GI support strategy. Stakeholders should clearly state the objective of the M&E tool, and the general values orientating the evaluation should be clearly defined (e.g. sustainability, competitiveness, poverty reduction, etc.);
- *participative*, or able to stimulate participation of all stakeholders, in order to: integrate all points of view and interests in the evaluation; empower all categories of firms and local actors; hold information collection costs in check and simultaneously allow for feedback effects;
- *policy-relevant*, that is, useful for elaborating individual and collective strategies, both at the private and public level.

The evaluation process may be divided into three main phases:

- a. Task-building
- b. The survey
- c. "Stricto sensu" evaluation

Each phase has different steps, as illustrated in Table 6.1.

Table 6.1 The evaluation process: three phases

<p>1. Task-building</p> <ul style="list-style-type: none">a. Identifying the evaluation's specific aimsb. Delimitating the object of the analysis; identifying stakeholders and collecting general informationc. Involving stakeholders and setting up the M&E Teamd. Analysing stakeholder expectations; identifying causal relationships and transmission mechanisms (chains of causality)e. Identifying potential areas of GI registration effects and critical points to be analysed <p>2. The survey</p> <ul style="list-style-type: none">f. Choosing pertinent indicators (cost-benefit analysis)g. Gathering and recording data <p>3. <i>Stricto sensu</i> evaluation</p> <ul style="list-style-type: none">h. Organising data, analysing and reportingi. Evaluating performancej. Elaborating responses at private and public level
--

The following paragraphs discuss some insights about the main steps and present some tools to be used in the M&E process. The use of those tools is decided case by case based on the aims of the evaluation and the specific characteristics of the Registered GI.

The steps can cover both GI framework evaluation and GI system evaluation, with only minor adaptation. Examples will refer to the effects of GI registration.

6.2 The task- building phase

Task-building is the most important phase of the M&E process. Indeed, this phase sets the conditions for clearly defining the object of analysis and the point(s) of view (general and specific aims, values, etc.) to orient the evaluation.

a. Identifying the evaluation's specific aims

Normally the evaluation is conducted under the initiative of a specific stakeholder category - such as firm associations, local or national public administrations, universities – that expresses specific aims. These aims should be clear and explicit from the beginning so that the object of the analysis can be clearly identified and delimited.

A written card is needed to formally define the specific aims of the evaluation and establish the main questions to answer (see example).

Example: written card defining specific aims of the evaluation

Principal of the evaluation:	<i>Producer association of the GI product</i>
Aims of the evaluation:	<i>Evaluating economic effects of the GI registration</i>
Main questions to be answered:	<ul style="list-style-type: none"> - <i>What are the effects of the GI registration on firm incomes and marketing channels used?</i> - <i>Has the GI registration affected product prices?</i> - <i>Has the average quality of the GI product increased after the registration?</i>
Potential side effects	<ul style="list-style-type: none"> - <i>What is the trend for prices of Origin Products not bearing the GI?</i> - <i>Has the registration of the GI exerted effects on local (female) employment structure?</i> - <i>Has the registration of the GI exerted effects on poverty alleviation?</i> - <i>What are the effects of GI registration on environmental quality?</i>

Notwithstanding the fact that the registered GI product may be well defined on the basis of the CoP, and that producing firms are identified, the GI system is also interconnected to the wider OP system, the whole supply chain (included non-localised activities) and the local system. For this reason, potential economic, social and environmental areas of evaluation might be included in the M&E process, even if they are not considered as “core” areas by the principal of evaluation.

The monitoring timespan is strictly linked to the aims; it should be consistent with the time needed for a full expression of the effects.

b. Delimitating the object of the analysis, identifying stakeholders and collecting general information

To depict a first framework for evaluation, a preliminary analysis of the OP production system is required. This analysis should be made by the *leading actor* of the M&E process, or by experts committed to doing it.

The results of the preliminary analysis should contain at least:

- the basic characteristics of the OP and GI product and production process;
- the identification of the supply-chain structure and trends: production process characteristics, technologies, and marketing channels;
- the identification of the actors' network (firms, public institutions, collective organisations, etc.) involved in the OP production and valorisation;
- the general situation of the OP production system and its value chain, with special reference to the marketing channels used;
- a synthesis with the identification of main elements of strength and weakness, threats and opportunities (SWOT Analysis; see examples).

Example – Strengths, Weaknesses, Opportunities, and Threats: SWOT Analysis for Jamaica Blue Mountain Coffee (JBM)

<p style="text-align: center;">Context opportunities</p> <ul style="list-style-type: none"> – Increasing consumers' interest in specific quality coffees and geographical origin – Market development in non-traditional consumer countries – Development of marketing channels directly linking producer countries and the retail system in developed countries – Opportunities offered by Geographical Indications sui generis protection schemes, in some countries of the EU – ... 	<p style="text-align: center;">Context threats</p> <ul style="list-style-type: none"> – Increase in competition on the high-quality coffee market: different quality cues (environmental and social issues) – New coffee terroirs emerging; registration of new geographical indications around the world – Many abuses and imitations of the name on final and intermediate market: many fake "BM" coffees, possible negative effects on the reputation – Blends named Jamaica Blue Mountain in some relevant markets (Japan) – ...
<p style="text-align: center;">Strengths of the GI product/GI system</p> <ul style="list-style-type: none"> – Excellent reputation of the product – Strong identity on the market – Very high prices on the final market, paid back to processors and farmers 	<p style="text-align: center;">Weaknesses of the GI product/GI system</p> <ul style="list-style-type: none"> – High production costs in the cultivation – Dependence on the Japanese market, which is held by only a few Japanese trading companies

<ul style="list-style-type: none"> - Well-established production and quality rules - Strong supply chain organisation, also due to the Coffee Board activity - Good competencies along the supply chain - ... 	<ul style="list-style-type: none"> - The system's bureaucratic organisation can hinder innovation - Weak incentives for farmers to make quality improvements - Poor links with domestic market (tourists), and low quality of coffee - Very difficult to control downstream supply chain activities abroad (roasting is made by other firms in consumer countries) - ...
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Example – Strengths, Weaknesses, Opportunities, and Threats: SWOT Analysis for Jamaica Jerk

Context opportunities	Context threats
<ul style="list-style-type: none"> - Increasing consumer interest in high-quality products, and particularly in jerk - Potential for increase in exports due to Jamaican communities abroad (diaspora) 	<ul style="list-style-type: none"> - Many in-market imitations and abuses of the name, especially abroad (UK, Canada, US) - Some misuse even on the internal market - Presence and growth of other “jerk-style” products on the market that may affect consumer perception of the authentic jerk
Strengths of the GI product/GI system	Weaknesses of the GI product/GI system
<ul style="list-style-type: none"> - High product reputation in Jamaica and some foreign markets - Strong product tradition and identity; strong link with Jamaican culture - High supply elasticity may favour the response to increases in demand 	<ul style="list-style-type: none"> - Low degree of organisation among producers (although growing) - High variability of the recipe may be an obstacle in reaching and maintaining an agreement on CoP contents

Note: Jamaican jerk is traditionally used in both seasoning and cooking meat (normally pork and chicken). Jerk seasoning's basic ingredients are pepper, scallion, thyme, and pimento.

c. Involving stakeholders and setting up the M&E Team

From the perspective of participatory analysis methodologies, the involvement of all stakeholder categories, as identified in the previous step on network analysis, is of paramount importance for the success of the M&E process.

Participation could be obtained directly or through representatives of different producer categories. In some cases associations represent groups of stakeholders. In others,

some categories – normally those empowered – are neither involved in nor informed about the GI registration process, although they are affected by it.

All the relevant phases of the supply chain should be represented and involved in order to measure overall impacts on the society, and all stakeholder typologies inside each phase of the supply chain should be considered as well (e.g., the smallest and non-professional farmers). This ensures that all points of view and perspectives are covered in the evaluation and interpretation of results.

Public administrations, at all policy levels, may also be involved in the M&E process; this to guarantee the involvement of all the stakeholder categories and the analysis of the effects that the GI registration process and implementation have on some relevant “public goods”.

Other stakeholder categories involved in the OP system should participate in the evaluation process as well, depending on the general features of the product and its production system.

Tools to allow a comprehensive and active participation of stakeholders in the M&E process vary according to local social and cultural specificities. The final result of this step is the establishment of a representative Monitoring and Evaluation Team (M&E Team). This allows for participation of interested categories and people in the finalisation of the M&E tool, in its application in the field and in the interpretation of results.

d. Analysing stakeholder expectations, and identifying causal relationships and transmission mechanisms (chains of causality)

Different stakeholders normally have different expectations about the benefits they can draw from the GI registration; therefore, they often have different motivations in using the GI in their activities.

These expectations should be made explicit and carefully analysed in order to orientate the M&E process.

Example of card summarising different stakeholder characteristics and motivations – for Jamaica Rum

Actor typology	Characteristics	Motivations/expectations
JAMAICA (inside and outside the supply chain)		
Farmers and their associations, co-operatives, etc.)	Small farmers are not involved in the rum supply chain. Some big sugar estates are part of sugar factories / distilleries.	Small farmers are not involved in the GI protection. In general, the link with rum is weak, and it is important especially for vertically integrated rum factories.

Sugar factories	<p>Most Jamaican distilleries own a sugar factory.</p> <p>Strong demand for molasses from Jamaican distilleries.</p> <p>Low value of molasses for sugar factories.</p> <p>Recent entry of Chinese companies in Jamaican sugar sector; uncertainty about future molasses availability.</p>	<p>Modest interest in rum and in the GI registration, except for sugar factories integrated with rum processing plants.</p> <p>In general, molasses is a by-product of sugar processing and has limited economic importance.</p> <p>Chinese firms' entry in the sugar sector can lead to a decrease in molasses availability in the internal market, or to a cost increase due to use of molasses for production of their own energy supply.</p>
Distilleries	<p>There are 6 distilleries owned by 4 firms (2 of them are public-owned). The sector is under control by the national authorities in charge of collection of excises.</p>	<p>Distilleries' expected effects:</p> <ul style="list-style-type: none"> – a reduction of imitations (fake Jamaican rums) on external markets; – a ban on blending Jamaican rum with other rums, and on mentioning the name "Jamaica" on these blends' labels; – an increase in their bargaining power against; downstream firms, mainly on foreign consumption markets; – an increase in rum sold as 100% Jamaican; – an increase in the quota of bottled rum.
Downstream processing firms	<p>Bottlers Blenders</p>	<i>Information not available.</i>
Spirit Pool Association	<p>The Association groups the distillation firms in Jamaica, and manages the supply of both Jamaican and imported molasses.</p>	<p>The same expectations as the associated distilleries.</p>

Non-local actors

Aging firms and bottlers in other countries	<p>Very often these actors blend Jamaican rum with other rums in order to:</p> <ul style="list-style-type: none"> – improve the quality characteristics of their rum; – use the name "Jamaica" on the bottle (also as "Jamaica blend"). 	<p>No specific information on these actors.</p> <p>Different attitudes could be expected, depending on different marketing characteristics of ageing and bottler firms. Some of them could be interested in developing a strategy for 100% Jamaican rum.</p>
Customers in importing countries	<i>No data available.</i>	-----

Example of card synthesising agreed and conflicting points among GI stakeholders – for Jamaica Blue Mountain Coffee

Main statements shared by stakeholders

All stakeholders involved agree on expecting an easier and better protection of intellectual property right against imitations and abuses, even though the GI registration in Jamaica is only a first step toward improving protection in foreign countries.

Market diversification and price consolidation are the other most quoted motivations.

Potential conflicting points

No specific conflicting points emerge among the different actor categories. Thanks to the Coffee Board, the JBM coffee system already has a common strategy.

There is a lack of conflicting points because rules in the GI CoP (area delimitation, process and product quality characteristics) are more or less the same as the national legislation. In addition, the local actors do not have the same level of information about the GI.

However, it is felt that the declared need to better control roasting activities is difficult to achieve, because roasting activity in the international coffee supply-chain structure is usually performed in consumer countries.

e. Identifying potential areas of GI registration effects and critical points to be analysed

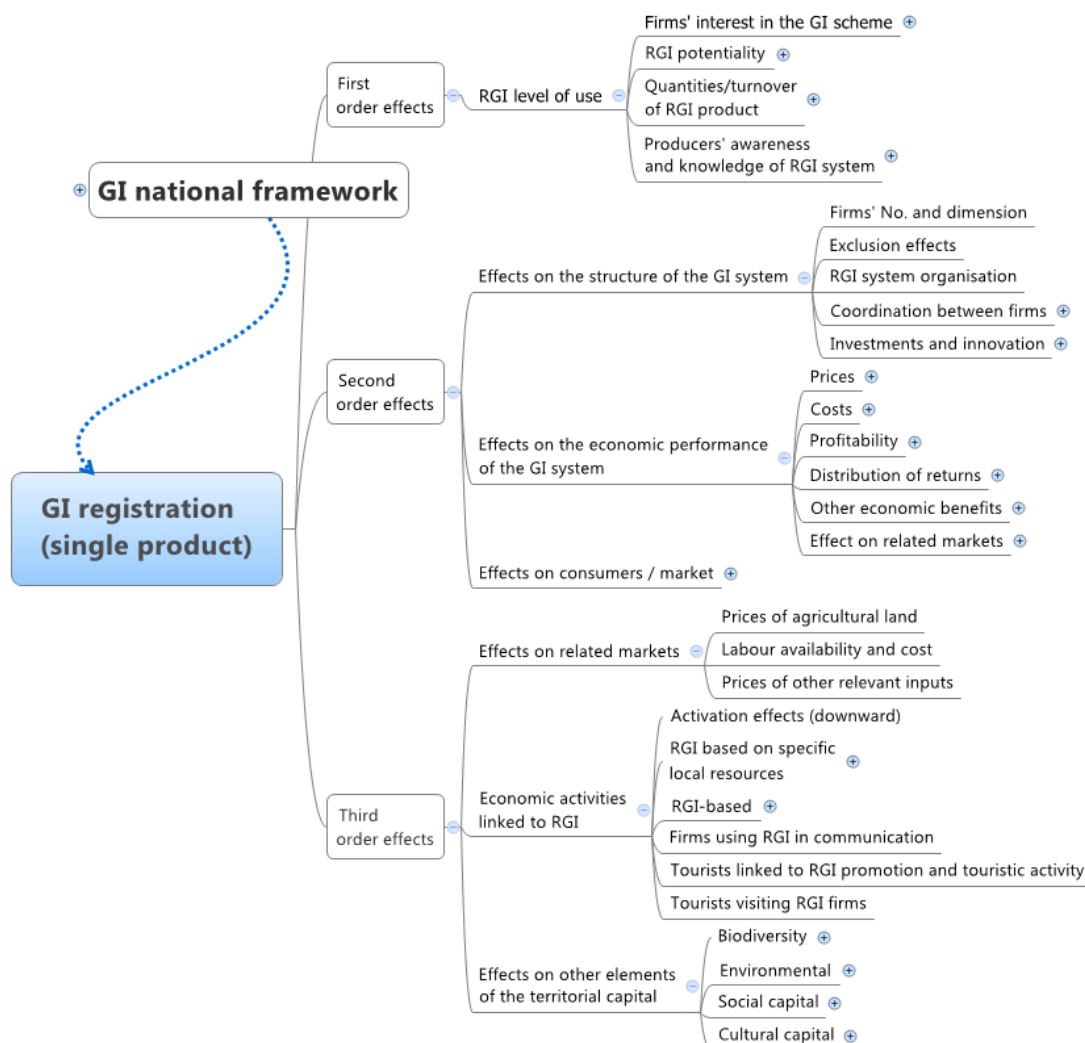
The task-building phase comes to an end when different stakeholders identify potential areas of impact of GI registration and express their expectations for the registration.

For a clear analysis, stakeholders should elaborate the causal relationships and transmission mechanisms linking the current situation of the OP production system, the GI registration and the expected impacts.

Any hypotheses about causal relationships and transmission mechanisms should be made by the M&E Team on the basis of theory, knowledge of other GI initiatives, interviews of key actors and/or specific meetings.

In this step, “conceptual maps” become starting points for different potential effects of GI registration, as discussed in the previous section (see the general overview of the effects resulting from GI registration and use in the scheme below). These maps could be used as tools to help stimulate stakeholder analysis.

Scheme 6.1 General overview of the effects from GI registration and use



Source: Authors' findings

Example of questions for social and environmental factors

Questions to answer:

- Are any social, cultural and environmental attributes important for the production and the reputation of the GI product? If so, what are they?
- Are there any risks of polluting or damaging the environment as a consequence of GI production?
- Does the CoP include provisions for the sustainable use of local natural resources? Does the CoP contribute to preserving biodiversity?

- What are the main social categories involved in the GI's production process? Are those categories active at all stages of production? What are their main contributions to the process and what are their needs?
- Is there equitable distribution of the added value for all social actors?
- Do certain social actors have a dominant position?
- Does the CoP refer to the know-how and skills of producers, or only to those of processors? How can producer know-how be better stimulated?
- How is local culture affected? How can it be preserved? Is local know-how used in the GI production?

Information to fill in (Table A, B):

Table A: List the most favourable and most critical environmental factors linked to your product

Table B: List the most favourable and most difficult social factors linked to your product

A. Environmental factors

Most favourable factors (opportunities)	Most critical factors (threats)	Comments
1.	1.	1.
2.	2.	2.
3.	3.	3.

B. Social factors

Most favourable factors (opportunities)	Most critical factors (threats)	Comments
1.	1.	1.
2.	2.	2.
3.	3.	3.

Source: Vandecandelaere et al. (2009)

Example of a card synthesising first, second, and third order effects – Jamaica Blue Mountain (JBM) Coffee (simplified card version)

FIRST ORDER EFFECTS	
RGI-use	
Firms' interest in the GI scheme	Nearly all coffee growers in the BM region are involved in the JBM system, even if a complete census is still ongoing. All first processors make use of the name "JBM" in marketing their products, and use the Coffee Industry Board of Jamaica (CIB) trademark. The extent to which the JBM certification mark is used can serve as a reference level for future RGI use.
RGI potentiality	Instead of an increase in coffee-cultivated area in the short term, more intense cultivation is expected.

Quantities / turnover of RGI Product	Increases in production and prices are expected effects of the GI registration and of access to new markets. An increase in the roasted share of production can also be expected. Effects on non-BM-produced coffee should be monitored. RGI of JBM could have either positive (pull) or negative effects.
Producer awareness and knowledge of the RGI	Awareness of the meaning and implications of the protection is not significant enough.
SECOND ORDER EFFECTS	
<i>Effects on the structure of the RGI system</i>	
Number of firms and dimensions	Expect a possible increase in the number of first processors and Jamaican roasters.
Exclusion effects	The deployment of such effects depends on the organisation and management of still-to-be-defined control and certification activities. Farmers could have problems entering a complex administrative system. First processors seem able to support an expected increase in administrative and bureaucratic costs, as some of the processors are already involved in other certification systems. Per CoP rules, almost all coffee production in the BM region can be marked as GI.
Organisation of the RGI system	No mentioned effects, due partly to CIB presence.
Coordination among firms in the RGI system	RGI is expected to stimulate cooperation among stakeholders and development of a "common vision". These effects should be attained via improved participation of all categories of supply-chain actors (farmers, processors, dealers, roasters, etc.) in the collective body managing the GI.
Investments and innovation in the RGI system	GI registration and protection can create better conditions for collective promotional investments. In general, clearer rules should support firms' investments in the product, but no other specific investments or innovations are expected as a direct consequence of the GI registration.
<i>Effects on the economic performance of the RGI system</i>	
Prices	Significant increase in final prices are not expected because: <ul style="list-style-type: none"> - prices are already high, and further increases may be not sustainable on the market; - the BM system doesn't seem to control prices, relying instead on important customers abroad; - of increased competition among high-quality and specialty coffees. Price differentiation at farm level could be a tool for giving quality incentives to farmers and improving the quality of the final product.
Costs	RGI could generate new costs for firms as well as fees to be paid for inspection and certification activities. The total costs will greatly depend on Jamaican rules and the organisation of these activities.
Profitability	Expected increase in profitability. High variability depending on typology of firms and activity developed (production, processing, marketing).
Distribution of economic performance	<i>Vertical distribution:</i> no expected modification in the structure of the added-value distribution along the supply chain, even if the (potential) increases in added value could benefit more the downstream actors than others in the supply chain (first processors, roasters). <i>Territorial distribution:</i> uncertain effects on non-BM Jamaican coffees.

Other economic benefits	<p>BM firms expect that GI protection will help to open new markets abroad and to reduce dependence on some others. Opening of new marketing channels is expected.</p> <p>RGI could also improve business stability with customers, e.g. the share of roasted coffee (RGI BM), sold on the basis of vertical coordination contracts of the total, could provide some indications. Relevant markets are UK, US, Canada, and Japan.</p>
Effects on markets and consumers	
Abuses / imitations	Stakeholders expect that abuses and misuses of the GI abroad will be prevented, and that imitations will be eliminated from the market. Indirect effects depend on the GI protection in Jamaica, but national registration could be a first step for extending GI protection abroad.
Consumer awareness	Expected increase of consumer awareness due to the GI quality sign's reputation in some countries (EU in particular), and/or due to specific marketing campaigns.
RGI product quality and identity	<p>RGI CoP doesn't change the current quality rules.</p> <p>Better organisation of the supply chain and formalisation of procedures are expected, with improved traceability and control, particularly of the supply chain's upstream phases.</p> <p>Coffee cherry prices usually do not vary according to coffee cherry quality.</p>
THIRD ORDER EFFECTS	
Economic effects outside the RGI production system	
Effects on related markets (land prices, salaries)	No expected effects mentioned.
Economic activities linked to GI	Local actors mention no specific effects, but RGI can contribute to an increase of tourism in the area.
Effects on other elements of the territorial capital	
Biodiversity	No expected effects mentioned. In the eyes of those interviewed, the GI does not seem relevant to biodiversity.
Environment	<p>Deforestation: uncertain expected effects. Some farmers may intensify the production per acre and/or utilize unforested land. Others think that an increase in demand may cause deforestation, but the current opinion is that a production increase could be obtained by intensifying cultivation (increase in yields per acre).</p> <p>Water: no direct, expected effects on water quantity and quality from the GI registration. Intensifying coffee production can lead to greater use of fertilizer, thus increasing water pollution.</p>
Social capital	No specific, expected effects mentioned. In general, maintaining coffee production is very important for social equilibriums in the BM area, due to coffee's significant role in the local economy.
Cultural capital	No specific, expected effects due to the GI mentioned.

6.3 The survey

f. Choosing pertinent indicators (cost-benefit analysis)

The first step in the survey phase, once the areas of GI registration effects and the critical points for analysis are chosen, is the selection of relevant indicators for monitoring. For each area of impact, one or more indicators can be defined.

Many methodological questions relate to the use of indicators. The literature on monitoring and evaluation emphasises the importance of carefully selecting precise indicators. Indeed, it is easy to identify too many indicators, and choose ambiguous or irrelevant ones. However, in the logic of a participatory M&E involving more and different groups of people, it is important that indicators meet their different information requirements.

Furthermore, indicators should ideally look at: short- and long-term changes; local and broader-scale changes; the general development process; quantitative and qualitative information; and tangible and intangible effects.

The identification of “good indicators” is a key point in the evaluation process. Some of the main characteristics for a good indicator are:

1. **Relevance.** Indicators should:

- address the key issues in the analysis of the registered GI’s potential effects;
- be representative of the issue to be analysed;
- be responsive by changing quickly enough in response to the hypothesised causal factor but not to other factors;
- avoid duplication of information and effort (often, indicators are correlated);
- be easy to interpret;
- be associated, if possible, to a reference level that allows easy benchmarking; or, to a threshold level.

2. **Analytical soundness.** Indicators should be based on:

- sound science;
- verifiable statistics, data or information, if possible.

3. **Measurability.** Indicators should:

- be based on available data or data that could be collected;
- not be too costly, or with a good cost-benefit ratio;
- refer to the specific area/production system;
- be updated regularly.

Official data are often unavailable at the relevant level for a GI system. As a consequence, it is important to check if data have been collected inside the GI system and if so, which data and collected by whom. Agricultural statistics are often difficult to obtain, especially at a pertinent scale with regard to the GI product, and particularly when the product is not marketed solely through formal channels. Often, existing data sources may be of questionable veracity, requiring reference to other information sources during the assessment.

The availability and collection of the indicator **reference levels** is an important issue. While it is normally impossible to have a good counterfactual (see Section 3), reference levels allow for benchmarking the GI situation, whether based on their absolute value or only on their trend. For the GI product, reference levels could be represented by specific indicators at a different level of analysis (e.g., general prices of the same kind of product under GI). The identification of reference level indicators should take into account the same characteristics discussed above, and they should be collected at the same time as the main indicator. In other situations, a threshold level could be defined for the indicator. This is mainly the case for environmental aspects linked to the GI product.

In order to support the choice of relevant indicators, an evaluation grid could be filled in for each possible indicator:

Evaluation grid for indicators

Name of indicator:			
Main area of effects:	<i>Choose areas</i>		
Specific aim of the indicator:			
Type of indicator:	<i>Qualitative, quantitative, etc.</i>		
Method of data collection:	<i>Official statistical data, administrative data, specific survey, etc.</i>		
Who is responsible for collecting data for the indicator?			Notes
Are there reference or threshold levels for comparison with the indicator?	Yes	No	Notes
What is the expected chain of causality between the indicator and the GI registration / use?			
Are data easily obtained?	Yes	No	Notes

Is the calculation required for the indicator simple enough?	Yes	No	Notes
Is the indicator objective and reliable?	Yes	No	Notes
Can stakeholders easily understand the indicator?	Yes	No	Notes
Are there other possible indicators for monitoring the same phenomenon?	Yes	No	Notes
What are the advantages/disadvantages of the indicator compared to alternatives?	Advantages		Disadvantages
Connection/relations with other indicators:			
General notes:			

Source: Authors' findings

g. Gathering and recording data

The main questions that need to be addressed are: Where can the required information be found? What tools should be used? Who will gather the information, and when?

While there is a wide variety of tools and techniques for gathering data, the choice of which to use will depend strongly on local context and project-specific criteria.

Data collection could be very complex, depending on the chosen indicator and the degree of precision needed. If data are not available, a data collection method should be selected from the available methods (see Table 6.2).

Collecting quantitative data requires sampling design and selection, and can be very expensive. Many data collection instruments are available, such as case studies (referred to representative situations), focus groups, direct interviews, observation, and analysis of written documents (e.g. administrative documents, databases, etc.).

Strengths and weaknesses of these data collection instruments have to be carefully analysed and discussed (see Table 6.2). Some data, like prices or sales volume of the RGI product, require regular surveys. Other data could be collected just once per year, or even at the beginning and end of the monitoring period.

The data collection process should be carefully planned, organised and managed, in order to guarantee good quality of data. For each indicator, a "practical card" is useful to give details about the data and how they are collected, a template for recording, and critical issues or other useful technical information and notes for the interpretation, (if any).

Data and information concerning each indicator should be registered and organised for the M&E Team. Data quality should be carefully verified, as well as the regularity of data collection.

Table 6.2 Main data collection instruments for impact evaluation

<i>Technique</i>	<i>Definition and use</i>	<i>Strengths</i>	<i>Weaknesses</i>
<i>Case studies</i>	Collecting information that forms a story, either descriptive or explanatory, and serves to answer questions of how and why	<ul style="list-style-type: none"> – Can cover a full variety of evidence from documents, interviews, and observations – Can add explanatory power when the focus is on institutions, processes, programs, decisions and events 	<p>Good case studies are difficult to do. They:</p> <ul style="list-style-type: none"> – Require rigorous and specialised research and writing skills – Cannot generalise findings over the population – Are time-consuming – Are difficult to replicate
<i>Focus groups</i>	Holding focused discussions with members of target population who are familiar with pertinent issues before writing a set of structured questions. The purpose is to compare the beneficiaries' perspectives with abstract concepts from the evaluation's objectives	<ul style="list-style-type: none"> – Similar advantages as interviews (below) – Particularly useful when participant interaction is desired – A useful way of identifying hierarchical influences 	<ul style="list-style-type: none"> – Can be expensive and time-consuming – Must be sensitive to mixing hierarchical levels – Cannot be generalised
<i>Interviews</i>	<p>The interviewer asks questions of one or more persons and records their answers.</p> <p>Interviews may be formal or informal, face-to-face or by telephone, and use closed- or open-ended questions</p>	<ul style="list-style-type: none"> – People and institutions can explain their experiences in their own words and setting – Flexible, so the interviewer can pursue unanticipated lines of inquiry and probe issues in depth – Particularly useful if there are language difficulties – Greater likelihood of getting input from senior officials 	<ul style="list-style-type: none"> – Time-consuming – Can be expensive – If not done properly, the interviewer can influence the interviewee's response

<i>Observations</i>	Observing and recording a situation in a log or diary. This includes who is involved, what happens, and when, where and how events occur. Observation can be direct (observer watches and records) or participatory (the observer becomes part of the setting for a period of time).	<ul style="list-style-type: none"> – Provide descriptive information on context and observed changes 	<ul style="list-style-type: none"> – Quality and usefulness of data are highly dependent on the observer's observational and writing skills – Findings can be open to interpretation – Do not easily apply within a short time frame to process change
<i>Questionnaires</i>	Developing a set of survey questions whose answers can be coded consistently	<ul style="list-style-type: none"> – Can reach a wide sample simultaneously – Allow respondents time to think before they answer – Can be answered anonymously – Impose uniformity by asking all respondents the same questions – Make data compilation and comparison easier 	<ul style="list-style-type: none"> – The quality of responses depends greatly on the clarity of the questions – Sometimes difficult to persuade people to complete and return them – Can involve forcing institutional activities and personal experiences into predetermined categories
<i>Written document analysis</i>	Reviewing documents such as records, administrative databases, training materials, and correspondence.	<ul style="list-style-type: none"> – Can identify issues to investigate further and provide evidence of action, change, and impact to support respondents' perceptions – Can be inexpensive 	<ul style="list-style-type: none"> – Potentially time-consuming

Source: Baker (2000)

6.4 “*Stricto sensu* evaluation”

h. Organising data, analysing and reporting

This phase should provide findings about the effects of GI registration. Unlike conclusions, findings do not involve value judgments.

Once the data collection for all the relevant periods has been completed, a synthesis and preliminary analysis of the data should be done in order to make them manageable and useful for the M&E Team and other people involved in valuing the GI registration's performance.

This process mainly involves technical competencies both inside and outside the M&E Team, in order to provide good, pertinent and easily understandable information for the next performance evaluation step. Data organisation, analysis and reporting are achieved by:

- *Verifying collected data* to ensure quality results. The analysis of data quality requires collaboration among analysts, data producers and policymakers to clarify questions and problems with the accuracy of data collection and problems that may be raised through their interpretation (Baker, 2000);
- *Building indicators* and organising empirical evidences according to general evaluation questions, main expectations, and effects identified in the task-building phase;
- *Collecting additional information*, if needed, in order to complete or check the quality and/or the meaning of the available information. In particular, it could be useful to collect additional information about possible comparators and specific issues that are not well illustrated by collected data (lack of data, or very poor quality and reliability of data). For some specific issues, it could be useful to make some in-depth analyses using case studies, interviews, and focus groups;
- *Making a critical analysis and elaborating a working hypothesis* to facilitate the next step (the performance evaluation) of the evaluation process. Making a critical analysis of collected data and elaborating a working hypothesis are crucial activities because they remain in a buffer area between the more “technical” data analysis and reporting, and the more “political” and “strategic” evaluation of performance. The risk of non-neutrality should be carefully taken into account. This analysis should consider three different approaches:
 - *change analysis*: compares indicators over time;
 - *attribution analysis*: compares the observed changes against targets or comparators, if available for some issue;
 - *contribution analysis*: confirms or disconfirms the cause-and-effect relationship of the measured changes resulting from the GI registration, on the basis of a chain of causality. As underlined in previous sections, the effects of GI registration may depend on both internal and external driving forces. While first order effects are directly due to the registration of the GI, second and third order effects are linked to more general pressures as well.

Contribution and attribution analysis should check the extent of evidence coming from collected data and calculated indicators over time, and/or from comparators directly attributable to the registration of the GI. In this regard, a careful verification of causal relationships highlighted in the task-building phase is

needed. (Step: *Analysis of the stakeholders' expectations, causal relationships and mechanism transmissions*). Both expert and local actor advice can contribute to the analysis, collected from individual interviews or small group meetings.

Indicators are meant to demonstrate a possible manifestation of the GI registration effect, and monitor changes over time in a constant and consistent way. This helps to clarify goals and to be more precise. In any case, indicators need to be interpreted in light of stakeholder experience and other sources of information. The interpretation of indicator values requires stakeholders to take an active role in the process (see participatory methods, Section 3.5);

- *Providing an overview (synthesis) of the effects.* A general synthesis, with an assessment of the indicator's relevance, the degree of data reliability, and the degree of causality of the observed phenomenon with the GI registration is very useful for next steps (see example, Table 6.3);
- *Preparing reports and other outputs from the analytical work.* These are the main inputs in the next step of the process, and they should be differentiated according to their target, e.g. farmers, processing firms, local population, local and/or national government policymakers, and scientists.

Table 6.3 Synthesis of main areas of effects and relevant indicators (examples)

	Main areas	Indicator (examples)	Relevance	Reliability	GI causality
I – RGI use					
	Firms' interest in the GI scheme	Var. in No. of firms in the RGI system / potential (%) ...	Low (for the GI performance)	Good Data is generated by the administrative system and controlled	Strong
		Var. in No. of firms using the RGI / total firms in the RGI system...	...	...	...
	RGI potentiality	Variation of surface area under GI scheme...	...	...	...
	Quantities / turnover of RGI products	Quantities of RGI sold (trend) ...	...	...	...

	Producer awareness and knowledge of the RGI	No. of producers knowing the existence of the RGI...	...	...	...
II.a – Effects on the structure of the RGI system					
	Number of firms and their dimension	No. of new-entrant farms...	...	...	...
	Exclusion effects	No. of firms using the RGI / No. of potential firms...	...	...	...
	Organisation of the RGI system	No. of firms as members of the collective body...	...	...	...
	Coordination	No. of farms as members of co-operatives...	...	...	...
	Investment and innovations	Investments made by farmers to comply with the CoP...	...	...	...
II.b – Effects on the economic performance of the RGI system					
	Prices	Price of the RGI Price of comparator...	...	...	...
	Costs	Costs of compliance...	...	...	...
	Profitability	Profits per RGI unit...	...	...	...
	Distribution of returns	Distribution of final price along the local supply chain...	...	...	...
	Other economic benefits	Access to new markets New marketing channels...	...	...	...
II.c – Effects on markets and consumers					
	Abuses / imitations	No. of abuses-imitations in a relevant export market...	...	...	...
	Consumer awareness	No. of consumers who know the meaning of the RGI...	...	...	...
	RGI product quality and identity	Product standardisation Perceived quality...	...	...	...

III.a – Effects on related markets					
	Prices	Price of agricultural land Price of other relevant inputs ...			
	Labour	Labour availability Cost of labour ...			
III.b – Effects on the economic activities linked to the GI a					
	Firms linked to GI product (not producers)	No. of restaurants offering the GI, turnover No. of specialised shops, turnover ...			
	Tourism	No. of tourists visiting GI firms No. on nights spent in the area ...			
III.c – Effects on other elements of the territorial capital					
	Biodiversity	Use of local plant varieties...	...	...	...
	Environment	Water quality...	...	...	...
	Social capital	Female work...	...	...	...
	Cultural capital	No. of promotional events linked to the RGI...	...	...	...

Source: Authors' findings

i. Evaluating performance

The aim of performance evaluation is to express value judgments about the effects of the GI over the different relevant areas (see Step e) and their relevance with regard to stakeholder expectations (identified in Step d).

The main questions to be considered are:

- To what extent does the GI registration lead to effects in different impact areas? How can these effects be evaluated even with regard to available comparators or other possible valorisation tools (other than GI registration) for origin products?

- The evaluation of GI registration effects has to be implemented with reference to each area of possible impact, on the basis of chosen indicators. How should contrasting effects in different impact areas (e.g. positive effects on prices, but negative effects on the environment) be considered?
- To what extent are stakeholder expectations in the GI registration fulfilled? To what extent is the GI registration relevant with respect to needs, problems and issues identified by different stakeholder categories?
- Are there contrasting effects for different stakeholder categories? Given that GI schemes are not always accessible by all the firms in the same way, and that these schemes can modify the competitive conditions both horizontally (inside each sector of the RGI supply chain) and vertically (between different sectors of the RGI supply chain), a particular focus should be devoted to horizontal and vertical distribution of the benefits coming from the GI registration and use. This task requires inclusion of all potential RGI system stakeholders as well as actors who have been excluded from the RGI system (such as firms located outside the geographical boundaries established by the GI CoP). Interviews of key informants and small group meetings could be used for this purpose.
- Are effects better or worse than expected? What did not work? Are negative effects due to the structure of the GI scheme, or to wider structural or organisational weaknesses of the GI production system? How do more general factors – negative international market trend and appreciation of the national exchange rate, among others – affect the GI registration effects? What are the strengths of the registered GI system?

From a methodological point of view, a number of choices have to be made to carry out a useful GI performance evaluation. First, there are two different approaches regarding **who is in charge of the performance evaluation**:

- evaluation managed by outsiders, or by stakeholders located at higher institutional levels not directly involved in the RGI supply chain;
- evaluation involving all end-users of the GI and other stakeholders in the RGI system (and, if relevant, in the more general Origin Product system).

These two approaches can be complementary, and both can be used in the field.

Second, the evaluation of the performance of the GI registration can be based on both **objective and subjective approaches**.

Objective evaluation consists of a comparison of what happened to the RGI product during the evaluation period with respect to some benchmark situation (another product; the same product some years later; etc.). Due to the difficulties of having a good counterfactual (see Section 3), this analysis can provide only a few useful elements for the evaluation.

Subjective evaluation is based on the involvement of all stakeholders, both directly and by means of their representatives, and on the comparison of RGI expected effects with observed ones. In giving their points of view, stakeholders can also consider unexpected events that occurred during the evaluation period; at the same time, they have to be informed about the other situations in order to make comparisons.

In the subjective evaluation logic, the *gap analysis* is a relevant tool. Inside each impact area, three main categories of effects can be identified (see Table 6.4):

1. Desired effects (DE): these effects express stakeholder motivations (both local public institutions and private actors and firms) for the registration of the GI; of course, they can vary according to the diverse stakeholder positions.
2. Expected effects (EE): they can be reasonably expected by the GI registration (see chains of causality).
3. Actual effects (AE): these are the result of the GI registration as assessed and monitored in the field, normally analysed according to specific impact areas and appropriated indicators.

The gap analysis compares actual with desired effects in order to make a judgment about the effectiveness of the GI registration. However, this effectiveness depends on coherence of GI expected effects with the desired ones, and on efficiency of the GI (see Table 6.4). Gap analysis can be both qualitative and quantitative, according to data availability, human and financial resources to be devoted to the evaluation, and the final aim of the evaluation.

Table 6.4 Efficiency, coherence and effectiveness evaluation

AE (AE1, AE2, .. AEn) → effectiveness index

DE (DE1, DE2, .. DE_n) (Note: 1, 2 ... n denote different indicators used to measure the same category of impact)

(If low, GI is not the right tool to satisfy the needs of the GI production system's actors)

An analysis of different components of this "effectiveness index" is needed; decomposing this index allows for a better understanding of the problems for this GI:

EE (EE1, EE2, .. EE_n) → coherence index

DE (DE1, DE2, .. DE_n)

(If low, it expresses the low coherence of the tool with the problems to be solved)

AE (AE1, AE2, .. AEn) → efficiency index

EE (EE1, EE2, .. EE_n)

(If low, it expresses a lack in efficiency in using the GI tool: local actors do not use the GI according to its potential. Gap analysis is needed to identify and correct problems.)

Source: Authors' findings

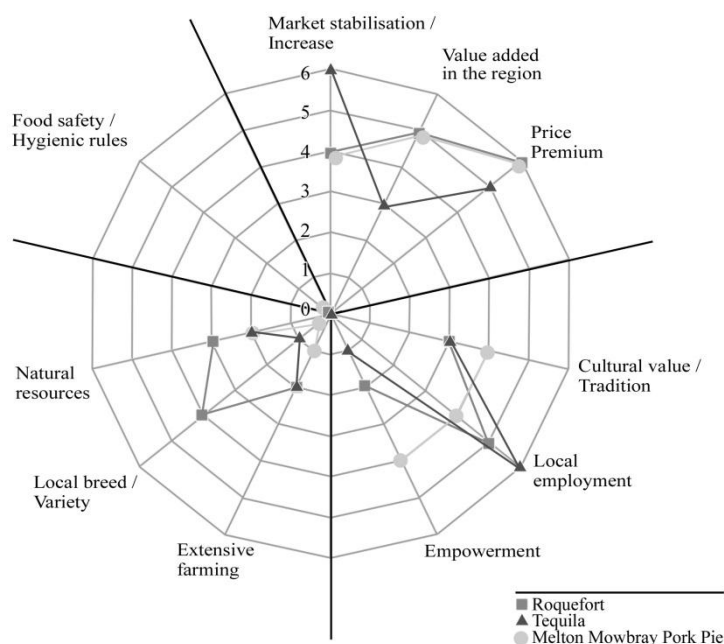
A third issue is how to make a **global analysis of the GI performance**, considering all impact areas and examining all collected information (sorting it, adding it up, comparing it) in order to understand the 'parts' in relation to the 'whole' and to have as synthetic an indicator as possible of the effects of GI registration on the most relevant analytical dimensions. For these purposes, it is useful to elaborate a synthesis of the indicators that have been selected for the evaluation of the GI registration and use.

The basic problem is how to aggregate different indicators and how to weight them. Inside each evaluation area, it could be useful to list all relevant indicators, assigning to each an appropriate weight or importance to stakeholders. The GI effects in that area can be translated into quantitative measures (scores) (Tsaur et al., 2006; Castellani and Sala, 2010). From the completed list of indicators, weights and scores can be added up for each of the main areas of evaluation, and overall. Of course, synthetic indicators must be carefully considered to avoid the risk of oversimplification and reductionism, and to prevent losing important information. When indicators have a high variance inside one specific area, attention is required to understand the causes of this variance and who, as a result, could be the winners and losers inside the GI production system.

The problem concerning the aggregation of different indicators is more severe when they belong to different areas and yield opposite outcomes: how can various factors be synthesized? This can include economic (e.g., RGI product price increase), environmental (e.g., intensification of chemical pesticides leading to the loss of biodiversity), and social (e.g., exclusion of small farms from using the RGI) factors. The problem is again more severe if different categories of stakeholders give more relevance to some categories of indicators than others.

A visual and synthetic presentation of aggregate indicators can show total performance in a multidimensional way, and can ease the monitoring benchmarking over time (see example).

Example of a simplified visual integration graph on impacts of GIs



Barjolle et al. (2009)

A more qualitative way to present results is to discuss and present the effects of the GI registration according to Table 6.5, where the most relevant issues concern sustainability. In this case, the evaluation question becomes: what are the effects of GI registration on the economic, social and environmental sustainability of individual firms such as farmers and processors, and of the local GI system, GI supply chain, local development, and market/consumers?

Table 6.5 Analysis of GI registration effects on sustainability

Effects on:	Economic sustainability	Social sustainability	Environmental sustainability
Single-firms - farmers - first processing - second processing - ...			
Local GI system			
GI supply chain (outside the GI system)			
Local development (outside the GI system)			
Market/Consumers			

Source: Authors' findings

The **organisation of a performance evaluation** and the choice of operational tools have to be made case by case, considering the specificities of the actor network involved in the GI product. In general, a participatory approach includes organising small group meetings by actor category (e.g. farmers, processors, etc.) and/or by geographical area (if the whole GI area is very large and differentiated), to allow for participation and expression of different viewpoints. Information on the evaluation process should be provided as input for these group meetings but in a careful, easily understandable way.

In a second stage, some further general meetings can be organised to discuss different perspectives of performance evaluation and to share a common view.

Not only M&E Team members but also as wide a range as possible of stakeholders should participate in, or be involved in, the performance evaluation.

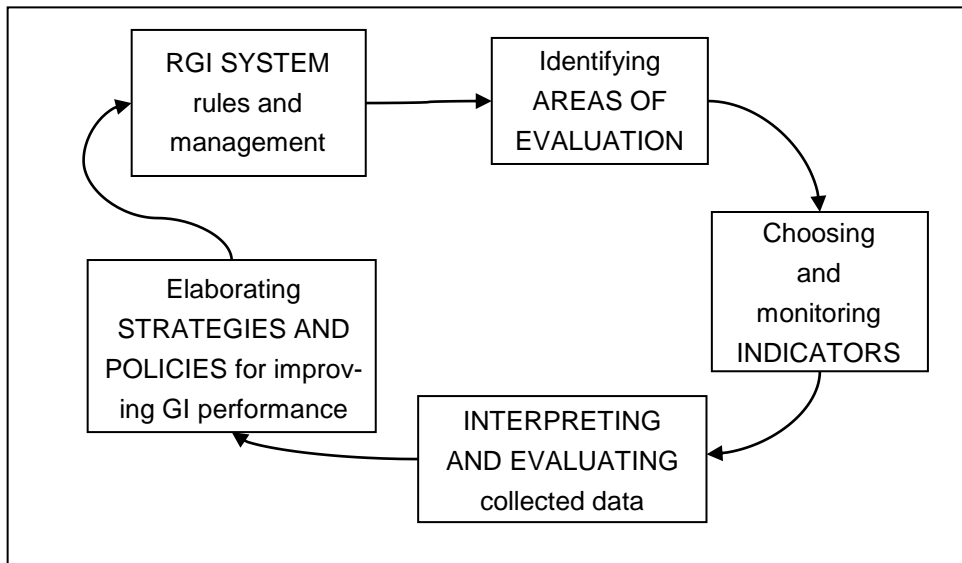
A final performance evaluation report should be prepared, describing the purpose of the evaluation, its objectives, main questions, procedures, results and reasoned conclusions. The aim is to make the essential information available in an easily understood form. Technical annexes to this final report should give more details about methodologies and provide more analytical information. It is recommended to disseminate this report to all involved and interested stakeholders.

j. Elaborating responses at private and public level

The M&E activity ends with the elaboration of responses to correct negative, undesired effects and improve both single-firm and RGI-system performance. Weaknesses of the RGI inspection, registration and enforcement system; problems with the rules written in the CoP; and the presence of factors enabling firms to use the RGI are among the more frequent impacts that undermine RGI effectiveness. These should be carefully identified and discussed, in order to be removed.

In this perspective, elaboration of responses is a key activity in the monitoring and evaluation process (see Scheme 6.2). The usefulness of an M&E activity is strictly connected to the possibility of linking it with the elaboration of private strategies (both at single-firm and collective levels) and public policies, in particular accompanying policies and local actor empowerment policies (Belletti and Marescotti, 2008). The main aims of the evaluation are to encourage critical reflection about the GI, its use by firms, and the management of the GI procedures, from an administrative point of view also.

In fact, regular identification of lessons learned from using M&E activities helps actors of the production system and public institutions to systematize experiences and allows for improvements that increase effects. Lessons are also critical to help others benefit from the experienced problems and successes. External events, such as supervision missions and mid-term evaluations or reviews, are valuable moments to see the GI initiative through different eyes and to identify strategic improvements.

Scheme 6.2 The evaluation cycle

Source: Authors' findings

7 Conclusions

Providing a general methodology for the monitoring and evaluation of the effects of both the introduction of a national legal and institutional framework for Geographical Indications and the protection of specific Geographical Indications (GI production systems) is a complex task.

This is primarily because Origin Products are the result of complex production systems, strictly interrelated with many dimensions of territorial development going beyond economic issues to involve social and environmental dimensions as well. In addition, the legal protection of Geographical Indications is just one of the tools that are part of a firm's strategy both in a collective and territorial dimension. Indeed, the legal protection of GI products is often conceived as a lever for activating local development dynamics and defending territorial production systems with a high degree of site specificity against pressures coming from those dynamics of globalisation. A network of different actors exists around the GI product; each actor has its own vision of the GI and of potential roles played by the legal protection of the GI.

From a methodological point of view, evaluation requires preliminary identification of the GI registration objectives in order to delimitate the field of analysis and concentrate available resources on the most relevant issues. Expected effects should be defined in order to be matched with the real effects of the GI registration and protection, and to show to what extent goals have been achieved.

A participatory approach to monitoring and evaluating GI effects is particularly important because it facilitates gathering more information and data, discussing problems, and rapidly correcting any possible deviation from the established objectives. As a consequence, the participation of all relevant stakeholders in the evaluation process should be facilitated as much as possible, from the very beginning (definition of the aims, data and information collection) to the end of the whole process (analysis and interpretation of these data).

Another key issue is that GI production systems are "living" systems that are exposed to many exogenous pressures and have a specific internal dynamic. It is difficult to keep the effects of the GI separate from what could occur without the GI. Due to the high level of specificity of each GI production system, it is very difficult to identify a good counterfactual, that is, a similar production system exposed to the same "forces" (other than those leading to the registration of the GI) such as demand trends, competition from other countries and specific local dynamics. In GIs' field of analysis, diachronic approaches are normally the most operable ones for the evaluation. They are based on the comparison of the GI system's situation at a specific time (T_0) to a future time ($T+n$ years), with n dependent on the evaluation's specific aims and the characteristics of the GI system.

Careful attention to chains of causality between the GI registration and protection and observed effects is needed, especially to isolate the effects attributable to the GI. Legal GI protection against usurpations is often accompanied by other policies, aiming first to empower local actors to build the GI and to support firms using the GI in commercial strategies and practices. Similarly, it is difficult to keep the effects of the GI legal framework separate from the whole “GI policy”, both at country and single-GI production system levels.

Given the high degree of context specificity of each GI system, the high variability of the aims pursued by the GI by local actors, different characteristics of the institutional and general development framework and different organisation of GI supply chains, a methodology for the monitoring and evaluation of the GIs should be very flexible, so as to adapt to country and product system specificities. This is why a step-by-step process is proposed, requiring careful implementation and considering local specificities.

The whole GI evaluation process should be managed by a monitoring and evaluation team, integrating external experts with a pool of representatives from different GI stakeholder categories. These categories should encompass all the sectors of the supply chain and other stakeholders representative of public interests, such as environmental institutions, regional agencies and social services. Local universities might support the evaluation activity as neutral and objective stakeholders, providing specific competencies in this field.

Obviously, to implement an evaluation requires resources, and the more precise the desired results, the higher the costs for providing information and developing the evaluation. Official statistical sources often do not provide specific, useful data for the GI evaluation. Providing, collecting and organising data can be a very expensive activity. In order to make monitoring and evaluation activity feasible, integration among different activities related to the GI registration, inspection, and functioning is key. This means that in the design of the GI institutional and administrative framework, synergies between administrative procedures and monitoring and evaluation issues should be pursued. Administrative procedures, such as control and certification, may generate abundant data (as the number and type of firms using the GI, quantities certified and sold with the registered GI, selling prices). This data should be collected, managed and organised, making it available for the monitoring and evaluation activities at very low cost, together with data from other stakeholders. Other data requires specific inquiries, and a specific budget would be needed. The cost of these analyses depends on the specific object and aim, and on the required accuracy of the enquiries.

Finally, a good evaluation should be based on an effective system of data production, collection and systematisation, managed by a multi-stakeholder team charged with elaborating indicators and interpreting the dynamics of the GI production systems. Participatory monitoring and evaluation of the effects of GI protection and registration should be conceived and organised as a learning process so that local actors can better use the GI tool. In this perspective, the committed involvement of all stakeholders is

important not only for the success of the evaluation, but also for the more general “success” of the GI registration. The registration can prompt local actor involvement in the GI dynamics and allow actors to better use the GI scheme within individual and collective marketing strategies.

The evaluation of the effects of the GI registration should always be considered as an important task. Setting up such a process should precede the application for obtaining GI registration. In fact, discussing the objectives of registration and its possible effects by means of mapping chains of causality should help stakeholders to better understand what they can expect from the RGI, and to really appreciate its potential and pitfalls.

Indeed, a precise monitoring of the different kinds of economic, social, and environmental effects of the registration over time should orient the GI system management once the registration is obtained, allowing to better finalise the next steps both at single-firm and collective level, and to set up effective marketing strategies and public support actions. When participatory approaches lead to a real involvement of all stakeholders in the evaluation process, the quality of the evaluation’s results tends to be more effective; at the same time, participation means information will circulate among stakeholders and activate learning processes and consciousness.

8 Glossary⁷

certification: A procedure by which a third party, the official certification body, provides written assurance that an organisation system, a process, a person, a product or a service conforms to requirements specified in a standard or other frame of reference. In the case of GIs, the certifying body certifies that the GI product is in conformity with the relative Code of Practice. Certification may, if appropriate, be based on a range of activities: on-site inspection, auditing of quality assurance systems, examination of finished products, etc.

certification body: A body responsible for providing certification, sometimes referred to as the “certifier”, which may be public or private and is normally accredited and/or approved by a recognised authority.

Code of Practice (CoP): The document describing the specific attributes of the GI product in relation to its geographical origin through a description of the product and its manner of production, laying down requirements regarding not only modes of production but also those of processing, packaging, labelling etc., where applicable. Any party using the GI must meet the requirements laid down in the CoP, which is the outcome of a consensus among the stakeholders in the GI’s value chain.

control plan: A specific, adaptable document that lays down how compliance with the various rules in the CoP is to be checked. It is a management tool identifying the control points constituting the critical stages of the production process and the means of verifying their conformity with CoP requirements (sometimes called control manual).

effect: The result of an action. Effects can be both intended and unintended. The effects of the registration of a Geographical Indication fall into three main categories: outputs, which are the first and most immediate results of the GI registration; outcomes, which are the direct consequences of the outputs and can be conceived as the immediate advantages and disadvantages of the registration for direct beneficiaries; and impacts, which are the consequences of the registration beyond its direct and immediate interaction with the beneficiaries, taking into account the changes induced by outcomes on a wider level in economic, social and environmental dimensions.

enforcement: The process by which a norm, or legislation in general, comes into legal force and effect. The rules collectively established for the GI product (the CoP) must be enforced against those misappropriating the GI. The producers of the GI can enforce these rules through a court or may themselves be given official standing by national authorities.

guarantee system: The mechanism existing or implemented in order to ensure the existence of certain attributes and the compliance with certain specifications as men-

⁷ Some definitions are taken from Vandecandelaere et al. (2009).

tioned in the CoP (assessable criteria and critical points, control plan: what is to be controlled, when and by whom, and the type of sanction), documentation (attestation) and information.

Geographical Indication (GI): The WTO 1994 Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement states: “Geographical indications [...] 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” (art. 22.1). All WTO member countries have to establish basic provisions for the protection of GIs. The term “GI” can be used to distinguish the identification of a product’s origin and its link with particular characteristics and a reputation related to that origin. When GIs are legally registered, they take such forms as Appellation of Origin (AO), Protected Designation of Origin (PDO) and Protected Geographical Indications (PGI), depending on the categories defined in the various countries and, as such, they become enforceable. The TRIPS Agreement does not provide any specific legal system of protection for GIs, leaving this task to member countries. If a member country has established a formal registration process to recognise GIs within its territory, then a product registered in this way can be referred to as a “protected GI”. However, a GI may exist without protection or without seeking protection, unless the name or product is considered generic. In certain situations, a collective mark or certification mark is the most effective legal protection for a GI.

GI framework: The legal and institutional general framework allowing for the recognition, protection and management of all GIs in a given territory. A GI legal framework is the result of laws, decrees, and administrative procedures aimed at allowing stakeholders to apply for the registration of a GI and obtain protection against illegitimate or incorrect use of the GI.

GI products (GIPs): All the OPs that are named or labelled with a GI (whether or not a geographical name or identifier). Whether a GI is used or not used to identify the products is the main difference between GIPs and OPs.

GI system: A system including all stakeholders and activities that contributes to the production of the GI product. A GI system thus includes the GI producers and the other stakeholders involved directly or indirectly in the value chain, including but not limited to public authorities, non-governmental organisations, research institutions, extension services and other institutions directly linked to the GI product (for example, tourism activities in the production area).

impacts: The consequences of the project beyond its direct and immediate interaction with the beneficiaries, and take into account the changes induced by outcomes on a wider level with economic, social and environmental dimensions.

inter-professional association/body/organisation: An organisation bringing together upstream and downstream partners from the same value chain with the purpose of

regulating the market for the product, participating in the implementation of agricultural policy provisions, analysing the implications of various contractual arrangements, encouraging improvement in performance along the chain, and defending the organisation's collective interests.

label: Any tag, brand, mark, pictorial or other descriptive matter, and written, printed, stencilled, marked, embossed or impressed on, or attached to, a container of food.

Origin Product (OP): Products linked to a specific territory that, due to this link, are characterised by one or more of the following key elements (with differing intensities): material characteristics making them "special" (that is to say: one cannot find other products with similar characteristics); specificity of natural and human resources used in the production process; history and tradition of the product, and links to history and tradition of local population; collective dimension (many actors involved) and local shared knowledge (both on production and consumption side).

outcomes: Immediate and direct effects coming from the outputs, depending on their use and adoption by final users. They can be conceived as the immediate advantages or exceptionally the immediate disadvantages of the project for direct beneficiaries, considered both as individuals (individual outcomes) and, if pertinent, as a group (collective outcomes).

outputs: The first and most immediate results of a number of activities activated by the project. Outputs measure the level of attendance/adoption of potential beneficiaries of the project itself.

producers' directory: a list of all firms wishing to use the RGI and complying with structural requirements of the CoP. This list is very often held by the RGI certification body, or by the National Authorities, or by the GI interprofessional body.

Registered GI (RGI), or Registered GI Products (RGIPs): GIs that are protected by special legal means of protection. Hence, the protection of a GI by means of special legal protection tools requires an official "recognition", granted through either a formal registration process or juridical decisions made by courts.

stakeholder (or actor): In the value-creation process for origin-linked products, any person, group or organisation with a direct or indirect stake in the outcome of the process, to the extent that they can affect or be affected by its results. Local producers and their associations, companies involved in the value chain (processors, distributors, suppliers etc.), consumers, the government and any institution playing a part in the GI system are all key stakeholders.

supply chain: A chain of activities through which a product (or a service) is produced and distributed to customers. A product goes through a series of processes and activities in the chain, at each stage gaining some value that is added to that from the previous steps.

traceability: Defined by the International Organization for Standardization (ISO) as “the ability to trace the history, application or location of that which is under consideration”. In the case of GI products, a traceability system has varying degrees of complexity (depending on the decisions taken by stakeholders and/or the normative framework), and allows for clear identification of the various points in the origin and movement of the product and its raw materials all the way along the value chain until it reaches customers and consumers, including all the enterprises that have been involved in the production, processing and distribution process etc. This ensures that the CoP has been correctly applied and allows for intervention in the case of non-observance.

trademark: In some countries, geographical indications can be protected as (private) trademarks. Geographical terms or signs cannot be registered as trademarks if they are merely geographically descriptive or geographically misdescriptive. However, if a geographical sign is used to identify the source of the goods or services, and if consumers have over time come to recognize it as identifying a particular company, manufacturer or group of producers, it no longer describes only the place of origin, but also the “source” of the uniqueness of the goods or services. At this point, the sign has thus acquired a “distinctive character” or “secondary meaning” and can therefore be trademarked.

TRIPS Agreement: The World Trade Organization (WTO) oversees the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement. Under this agreement, the national intellectual property legislation of WTO members must establish the minimum level of protection for these rights as defined in the agreement’s 73 articles. Articles 22 to 24 of the TRIPS Agreement deal with GIs.

9 References

- Baker J.L. (2000). *Evaluating the Impact of Development Projects on Poverty. A Handbook for Practitioners*. The World Bank, Washington, D.C.
- Barjolle D., Paus M., Perret A. (2009). *Impacts of Geographical Indications. Review of Methods and Empirical Evidences*. Contributed paper prepared for presentation at the International Association of Agricultural Economists Conference, Beijing, China, August 16-22.
- Belletti G., Burgassi T., Manco E., Marescotti A., Scaramuzzi S. (2009). The roles of geographical indications in the internationalisation process of agro-food products. In: Canavari M., Cantore N., Castellini A., Pignatti E., Spadoni R. (eds.). *International marketing and trade of quality food products*, Wageningen, The Netherlands: Wageningen Academic Publishers, pp. 201-221.
- Belletti G., Hauwuy A., Marescotti A., Paus M. (2008), "Evaluation des effets locaux des AOP-IGP: développement rural, organisations sociales et vie des territoires", in: Sylvander B., Casabianca F., Roncin F. (Coord.), "Produits agricoles et alimentaires d'origine: enjeux et acquis scientifiques", Colloque international de restitution des travaux de recherche sur les Indications et Appellations d'origine géographique, INRA-INAO, Paris, November 17-18, 2005, pp. 214-228.
- Belletti G., Marescotti A. (2007). *Costi e benefici delle denominazioni geografiche (DOP e IGP)*. *Agriregionieuropa*, anno 3, numero 8, marzo.
- Belletti G., Marescotti A. (2008). *Approcci alternativi per la regolazione e la tutela dei nomi geografici: reputazioni collettive e interesse pubblico*. *Agriregionieuropa*, 4(15), pp. 17-20.
- Belletti G., Marescotti A. (Eds.) (2006). *WP2 Report. Social and Economic Issues*. SINERGI EU Funded Project, final report.
- Belletti G., Marescotti A. (Eds.) (2008). *GI Strategies and Policy Recommendations*. SINERGI EU Funded Project, final report.
- Belletti G., Marescotti A. (2009). *Supporting local qualification processes of Origin products in the perspective of sustainability: legitimacy and role of public policies*. International Symposium "Localizing Products: a Sustainable Approach for Natural and Cultural Diversity in the South ?", UNESCO, Paris, June 9-11, 2009.
- Belletti G., Marescotti A., Pacciani A., Scaramuzzi S. (2001). *The role of typical products in fostering rural development and the effects of Regulation EEC 2081/92*.

In: "Policy Experiences with Rural Development in a Diversified Europe", 73rd EAAE Seminar, Ancona, 2001, June 28-30.

Blackstock K., Kelly G.J., Horsey B.L. (2007). Developing and applying a framework to evaluate participatory research for sustainability. *Ecological Economics*, n. 60, pp. 726-742.

Brunori G., Rossi A. (2000), "Synergy and Coherence through Collective Action: Some Insights from Wine Routes in Tuscany", *Sociologia Ruralis*, vol. 40, n. 4.

Case D. (1990). The community's toolbox: The idea, methods and tools for participatory assessment, monitoring and evaluation in community forestry. FAO, Rome (<http://www.fao.org/docrep/x5307e/x5307e00.htm>).

Castellani V., Sala S. (2010). Sustainable performance index for tourism policy development. *Tourism Management*, vol. 31, n. 6, pp. 871-880.

CGIAR (Consultative Group on International Agricultural Research) (2008). Strategic Guidance for Ex Post Impact Assessment of Agricultural Research. FAO, Rome.

Commission Européenne (1999). Évaluer les programmes socio-économiques. Principales techniques et outils d'évaluation. Volume 3, Luxembourg.

Directorate General External Relations and Directorate General Development, EuropeAid Co-operation Office - Joint Evaluation Unit (2006.a). Evaluation methods for the European Union's external assistance. Methodological bases for evaluation. Volume 1, Luxembourg.

Directorate General External Relations and Directorate General Development, EuropeAid Co-operation Office - Joint Evaluation Unit (2006.b). Evaluation methods for the European Union's external assistance. Guidelines for geographic and thematic evaluations. Volume 2, Luxembourg.

Directorate General External Relations and Directorate General Development, EuropeAid Co-operation Office - Joint Evaluation Unit (2006.c). Evaluation methods for the European Union's external assistance. Guidelines for project and programme evaluation. Volume 3, Luxembourg.

Directorate General External Relations and Directorate General Development, EuropeAid Co-operation Office - Joint Evaluation Unit (2006.d). Evaluation methods for the European Union's external assistance. Evaluation tools. Volume 4, Luxembourg.

Estrella M., Gaventa G. (1998). Who counts reality? Participatory monitoring and evaluation: a literature review. IDS Working Paper, n. 70.

- European Commission (2001). A framework for Indicators for the Economic and Social Dimensions of Sustainable Agriculture and Rural Development. Brussels, Commission staff working paper.
- European Commission, Directorate General for the Budget (2004). Evaluating EU activities: A practical guide for the Commission Services. July.
- Ezemenari K., Rudqvist A., Subbarao K. (1999). Impact Evaluation: A Note on Concepts and Methods. PRMPO – Poverty Reduction and Economic Management Network, The World Bank.
- Galtier F., Belletti G., Marescotti A. (2008). Are Geographical Indications a way to “de-commodify” the coffee market? XII EAAE Congress, Ghent, August 26-29.
- IFAD (2002). Managing for impact in rural development. A guide for project M&E. IFAD, Rome.
- King Baudouin Foundation and the Flemish Institute for Science and Technology Assessment (2005). Participatory Methods Toolkit. A practitioner’s manual. Brussels.
- Larson J. (2007). “Relevance of geographical indications and designations of origin for the sustainable use of genetic resources”, Global Facilitation Unit for Underutilized Species, Rome.
- London Economics (2008). Evaluation of the CAP policy on protected designations of origin (PDO) and protected geographical indications (PGI). Final report. London. Study financed by the European Commission, carried out by London Economics in association with ADAS and Ecologic.
- Marescotti A. (2003). Typical products and rural development: Who benefits from PDO/PGI recognition?, 83rd EAAE Seminar Food Quality Products in the Advent of the 21st Century: Production, Demand and Public Policy, Chania (Crete), September 4-7.
- Miller G. (2001). The development of indicators for sustainable tourism: results of a Delphi survey of tourism researchers. *Tourism Management*, 22, pp. 351-362.
- OECD – LEED Programme (2009). Implementation guidelines on evaluation and capacity building for the local and micro regional level in Hungary. A guide to evaluation of local development strategies. OECD, Paris.
- Paus M., Révion S. (2010). Mesure de l'impact territorial d'initiatives agroalimentaires. Enseignement de deux cas suisse. *Economie Rurale*, n. 315, janvier-février, pp. 28-46.

- Réviron S., Thévenod-Mottet E., El Benni N. (2009). Geographical Indications: creation and distribution of economic value in developing countries. NCCR Trade Regulation, Swiss National Centre of Competence in Research, Working Paper No. 2009/14, March. Available at http://82.220.2.60/images/stories/publications/IP5/report_IP5_GI_Value_2009.pdf
- Réviron S., Paus M. (2006). Impact Analysis Methods. Special Report. SINERGI EU Funded Project, final report.
- Sheng-Hsiung Tsaur S.H., Lin Y.C., Lin J.H. (2006). Evaluating ecotourism sustainability from the integrated perspective of resource, community and tourism. *Tourism Management*, n. 27, pp. 640-653.
- Sylvander B., Allaire G., Belletti G., Marescotti A., Tregear A., Barjolle D., Thévenod-Mottet E. (2006). Qualité, origine et globalisation: Justifications générales et contextes nationaux, le cas des Indications Géographiques. *Canadian Journal of Regional Sciences*, Special Issue "Public Policy and Rural Space", vol. XXIX, n. 1, Spring 2006, pp. 43-54. Available at <http://www.cjrs-rcsr.org/archives/29-1/4-Sylvander-et-al.pdf>
- Taschereau S. (1998). Evaluating the Impact of Training and Institutional Development Programs: a Collaborative Approach. Economic Development Institute of the World Bank.
- Tavistock Institute, GHK & IRS (2003). *The Evaluation of Socio-Economic Development: The Guide*. Tavistock Institute, London.
- Thévenod-Mottet E. (Ed.) (2006). WP1 Report. Legal and Institutional issues related to GIs. SINERGI EU Funded Project, final report.
- Tregear A., Arfini F., Belletti G., Marescotti A. (2007). Regional foods and rural development: the role of product qualification. *Journal of Rural Studies*, n. 23, pp. 12-22.
- Tsaur S.H. Linb Y.C., Lin J.H. (2006). Evaluating ecotourism sustainability from the integrated perspective of resource, community and tourism. *Tourism Management*, n. 27, pp. 640-653.
- Vandecandelaere E., Arfini F., Belletti G., Marescotti A. (Eds.) (2009). Linking people, places and products. A guide for promoting quality linked to geographical origin and sustainable geographical indications. FAO-SINERGI, Rome. Available at <http://www.foodquality-origin.org/guide/guide.pdf>
- Wallet F., Isla A. (2009). Institutional innovations in geographical indications protection schemes and contribution to sustainable development. An approach by the concept of public good. IAAE Triennial Conference, 27th Conference "The new land-

scape of global agriculture”, International Convention Center, Beijing, China, August 16-22.

World Trade Organization (2003), “Review under article 24.2 of the application of the provisions of the section of the TRIPS Agreement on geographical indications. Summary of the responses to the checklist of questions (IP/C/13 and add.1). Note by the Secretariat”, Council for Trade-Related Aspects of Intellectual Property Rights, IP/C/W/253/Rev.1, November 24, 2003.

10 List of abbreviations

AE: Actual Effects

AO: Appelation d’ Origin

BM: Blue Mountain (region in Jamaica)

CIB: Coffee Industry Board (Jamaica)

CoP: Code of Practices

DE: Desired Effects

DPSIR (methodology): Drivers-Pressures-State-Impact-Response (methodology)

EE: Expected Effects

GI: Geographical Indication

GIP: Geographical Indication Product

IPR: Intellectual Property Right

JBM (coffee): Jamaica Blue Mountain (coffee)

M&E: Monitoring and Evaluation

OP: Origin Product

PDO: Protected Designation of Origin

PGI: Protected Geographical Indication

RGI: Registered Geographical Indication

RGIP: Registered Geographical Indication Product

SWOT (Analysis): Strengths, Weaknesses, Opportunities, and Threats (Analysis)

TRIPS (Agreement): Trade-Related Aspects of Intellectual Property Rights (Agreement)

EU: European Union

WTO: World Trade Organization