

# **Part I**

## **Geographic indications, trade promotion and sustainable development in CLMV countries**



# Part I

## Introduction

### **Geographic indications, trade promotion and sustainable development in CLMV countries**

*Sébastien Bouvatier*

Geographical indications (GIs) are a specific type of intellectual property rights dedicated to the protection of goods (agricultural products, handicrafts, etc.) which possess a strong link with their geographical origin. As such, they enable to protect the name of goods which are not only of high cultural value but also represent a significant potential in matter of economic development for local communities. Famous examples of GIs include French champagne, Cornish pasties, Gorgonzola cheese and Darjeeling tea.

The concept of GIs was initially developed in France between the end the 19th and the beginning of the 20th century. It proved very efficient to promote multiple local products such as Champagne or Cognac which generate several billion euros of turnover, largely to the benefit of French farmers. But it is only in the mid-90's that GIs obtained a global recognition through the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights.

This international endorsement opened the way to a wider use of GIs worldwide, particularly in developing and emerging countries. In these economies, GIs are seen as an interesting tool to foster economic development, in contexts where other intellectual property rights might not be as relevant (products based on tradition, collective approach, etc) and might not ensure such an equitable distribution of benefits along the value chain.

ASEAN countries possess a long history, a high level of cultural diversity and wide range of agricultural/food products and handicrafts. Those characteristics are particularly favourable to the development of GIs and their economic success. It is the reason why most ASEAN countries have shown a growing interest in GIs during the past two decades. Recently, ASEAN countries have been displaying considerable dynamism to register numerous GIs and there are now more than 200 registered products in the region. In the coming years,

ASEAN countries will progressively shift their focus towards organisation of producers and control systems which are two key elements for successful GIs.

The following two chapters on GIs in Viet Nam and Cambodia shed light on the situation of GIs in ASEAN, showcasing their first impressive successes but also evidencing the need of further work and cooperation between authorities and producers to reap the full benefits of GIs and ensure their sustainability in the long term.

The first chapter investigates the relationship between GIs and sustainable rural development in Viet Nam, considering Government roles and producers' strategies. As part of this study, interviews were conducted with Vietnamese officials and GI producers to investigate the role of the Government of Viet Nam in designing and implementing GIs. The study also examined the involvement of local producers in taking advantage of GIs to identify how and to what extent GI protection affects sustainable rural development.

The study found that the most notable impact of GIs on the social system is its contribution to the development of representative associations for GI-registered products in the territory. Communication and connections among producers and traders were found to be lacking, culminating in the need for such associations. Next, critical supporting infrastructure and local government human resources were found to be insufficient to meet the current demand due to limited budgets of the local authorities. In terms of economic development, due to the establishment of the GIs, the increase in reputation has led to a considerable rise in the production volume and the premium price of the products, resulting in significant improvements of the producers' incomes. Next, the study found that GI development in Viet Nam has been increasingly instrumental in preserving the uniqueness of products rooted in specific territories or local areas, especially when the region is encouraged to produce traditional products rather than focusing on alternative products. Finally, technological improvements, while may have issues relating to attaining cost efficiencies, have been found to promise significant benefits to producers. The recommendations of the study include a call for further infrastructure investment; stronger collaboration between relevant ministries, local authorities, farmers, producers and relevant associations to acquire GI recognition; improving regulatory framework on GIs; providing training and support for GI producers; improving the quality control system of post-GI registration, and; improving the policy on harnessing GIs for sustainable rural development.

The second chapter contributes to the literature on the impacts of GI on local development by providing empirical evidence using Cambodia's Kampot pepper

as a case study. The study employs a qualitative data collection and analysis method combining secondary data from content analysis with primary data from interviews of relevant stakeholders and site visit observations. The findings of this study are in line with the literature, which support the hypothesis that GI contributes positively to socio-economic development in rural Cambodia. The GI status of Kampot pepper has provided economic benefits by increasing the value of this product as well as boosting local and export demand that has resulted in higher turnover for the producers. The social benefits of GI come in form of improving people's livelihood, and the creation of employment for the local population as a result of the expansion of farmland and increases in production. GI has also brought about environmental gains through the promotion of sustainable agriculture practices.

The authors of the chapter caution, however, that while Kampot pepper is a successful case, this does not suggest that any product registered as a GI will automatically be successful. GI only provides recognition of, and protection for products that are historically well-known. Although there are many examples of origin-based products that are sustainably successful without official recognition and protection, official recognition and protection through GI can help to improve the marketing and profitability of such products. Kampot pepper has long been appreciated for its quality, yet GI has helped to make it famous internationally and thus has created a broader market for the product. Furthermore, for the GI approach to work, it is necessary for a quality product to be positioned in quality markets, so that consumers are willing to pay more. In addition, the intermediary economic actors who process and/or sell the product must be ready to apply this strategy.

The authors further call for further collaboration and partnerships among various stakeholders, including the Government (both national and local), local producers and processors, international development agencies and relevant local community development agencies. Such collaboration is necessary for successful GI registration and implementation. Furthermore, a sustainable GI approach must ensure that a significant share of the value-added generated by GI goes to the producers located in a GI product's territory. A systematic capacity-building programme as well as the promotion of public awareness are vital for the long-term success of GI. In addition, a strong enforcement of the GI law is needed in order to protect the reputation of GI products, and eliminating counterfeit products and deterring offenders are crucial to maintaining the value of GI products and to meeting the expectation of the consumers. The long-term benefits of GI can be realized when GI policies are linked with trade facilitation and investment promotion measures, rural development strategies and national public quality standards.



# Part I

## Chapter 1

### **Geographical indications and sustainable rural development in Viet Nam: A qualitative study of policymakers and producers\***

*Hoang Truong Giang, Nguyen Hoang Anh,  
Du Vu Hoang Tuan and Le Thi Thu Ha*

#### **Introduction**

Despite the well-known importance of geographical indications (GIs) to the agriculture sector and rural development, very few studies have explored the link between GIs and sustainable rural development in the context of Viet Nam. This study is an attempt to contribute to the literature by investigating the relationship between GIs and sustainable rural development in Viet Nam, considering Government roles and producers' strategies. Nineteen interviews were conducted with Vietnamese officials and GI producers to investigate the role of the Government of Viet Nam in designing and implementing GIs and the involvement of local producers in taking advantage of GIs to identify how and to what extent GI protection affects sustainable rural development. The results show that GIs have positively contributed to sustainable rural development in Viet Nam; however, problems remain in terms of infrastructure, GI management and the connection between producers and traders. These problems need to be solved with the involvement of the Government and local producers. This study concludes with policy implications for promoting GIs and sustainable rural development in Viet Nam.

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\* Please note that the Annex to this chapter is available digitally from <http://www.unescap.org/resources/trade-integration-within-asean-role-non-tariff-measures-cambodia-lao-peoples-democratic>

Agriculture and rural development play an important part in the economy of Viet Nam. While the value of agriculture in Viet Nam's GDP has fallen from 22.7% to 17% since 2002 (World Bank, 2017), the sector still accounts for nearly half of the total workforce (Oxford Business Group, 2017). In a developing economy like that of Viet Nam, agriculture is the main source of income for people living in the rural areas. Therefore, a strategy for sustainable rural development should be based on sustainable growth of agricultural production.

Prior to 1986, the year of *Doimoi* (Renovation), a policy focus of self-sufficiency in agriculture was in place. Such agricultural policies are generally applied nationwide by the Ministry of Agriculture and Rural Development, and more locally by provincial Governments before being imbedded into all other levels of government down the chain of command. After *Doimoi*, many new policy tools were used to stimulate agricultural and rural development by focusing on quality and branding values of the agricultural products. Among such agricultural policies, GIs are considered to be an effective tool for improving the quality and reputation of agricultural products, thus contributing significantly to the development of rural areas. From the mid-1990s until the present, the Government of Viet Nam has been proactive in the development and use of GIs (Durand and Fournier, 2015), and it is now seen as one of the world's most active users of this policy tool (Benerji, 2012).

In general, GIs are an effective and cost-effective way of promoting agricultural products, by avoiding the misappropriation of names (Anders and Caswell, 2009; Bramley and others, 2011; Vittori, 2010). Similar to the objective of intellectual property rights (IPRs), GIs are aimed at protecting the appeal and reputation of regional products that can be linked clearly to their source. GIs may help customers recognise quality food from other foods in the context of "information asymmetry" (Akerlof, 1970). In addition, GIs can even play a role in resource conservation (Gangjee, 2012), thereby enhancing the autonomy of rural communities through "grassroots economics" (Bowen, 2010). In today's highly globalised world, GIs can even change a product from pure "commodity" to that of an "origin product" (Galtier and Marescotti, 2013), which can in turn increase both the selling price and market share of products.

Given their potential multiple functions, both positive and otherwise (Bowen, 2010; Galtier and Marescotti, 2013), in many places around the world GI protection is considered an integral part of general agricultural policy. GIs have the potential to raise producer incomes through creating and strengthening a product's reputation, thereby allowing a boost in local agricultural activity and

the growth of the local market (Bowen, 2010). This creates a spillover effect into other sectors of the local economy (Pecqueur and others, 2008). Governments can therefore use GIs to promote sustainable diversification in productive agricultural areas as well as help to prevent a rural exodus. Even though the literature has largely agreed that GIs can contribute positively to agricultural and rural development (Durand and Fournier, 2015), there is still some way to go concerning the impact of the former on sustainable rural development – a key strategy in the long-term development of Viet Nam.

To bridge these gaps, this study examines the institutional role of the Government of Viet Nam in implementing and managing GIs, explores the involvement of local producers in GI development, and analyses whether and how GIs are combined with agricultural policies to support sustainable rural development in Viet Nam. To realize this aim, the study employs the PENTAGON model (Akgun and others, 2015; Gülümser, 2009) to explore the link between GI protection and five factors of sustainable rural development. Five main questions are posed: (i) How do GIs contribute to an economic system?; (ii) How do GIs influence a local socio-economic system?; (iii) Do GIs contribute to a creative system and how?; (iv) How do GIs contribute to a physical system?, and (v) How do GIs impact a social system?

This study is structured as follows. Section A provides a review of the literature on GIs and sustainable rural development, and an evaluation of the role of the Government of Viet Nam in designing and implementing GIs. Section B explains the situation regarding GI protection in Viet Nam. Section C explains the methodology, including sample selection, data collection and data analysis. Section D presents the results of the qualitative research. Section E proposes implications of, and recommendations for (a) improving the legal system, and (b) local producers to take full advantage of GI protection in order to promote sustainable rural development in Viet Nam. Section E provides the conclusion.

## **A. Literature review**

GIs are defined in many ways. This study worked with the definition by the World Trade Organization (WTO), presented in Article 22 of the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement. In the Agreement, GIs are defined as “indications that identify a good as originating in the territory of a particular country, or a region or a locality in that country, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin” (WTO, 1994).

Under the TRIPS Agreement, there are three major conditions that a product must satisfy to be recognised under the GI scheme. First, it must relate to a specific type of agricultural or non-agricultural good (although in some countries services are also counted, including but not limited to Bahrain, Croatia, Jamaica, Moldova and Singapore). Second, a product must originate from a defined area. Finally, the product must have qualities, reputation or other characteristics that are clearly linked to its geographical origin (Kireeva and O'Connor, 2010; WTO, 1994). Products that are unable to meet these three conditions cannot be protected under the GI terms of the TRIPS Agreement.

The exact nature and extent of protection, however, are not specified in the Agreement, and there is case law only for specific products. This lack of specification of GI protection methods is perceived as the shortcoming of the TRIPS Agreement (Le, 2016). Instead, an array of institutions and arrangements have been established in different parts of the world to solve the issues of GI protection (Bowen and Zapata, 2009; Le, 2016).

European Union countries adopted the earliest *sui generis* registration-based system, in which the relevant member State (often the Ministry of Agriculture) assesses the application against criteria. If acceptable, the European Commission is responsible for final approval (Bowen and Zapata, 2009; Le Goffic and Zappalaglio, 2017). Meanwhile, trademarking is the approach used in other developed countries such as Australia, Canada, New Zealand and the United States, where trademark owners regulate the utilization of their own trademarks (Le Goffic and Zappalaglio, 2017). Similarly, developing countries have started to make a move in this field as a way to encourage rural development and protect local products, at both the local and the national levels (Bowen and Zapata, 2009; Charbot and others, 2016). According to Le (2016), business and competition laws are also methods of protecting GIs.

Despite being found in different forms, the legal protection provided by GIs is aimed at safeguarding the markets for GI products, especially in terms of preventing market failure, from public goods and over-exploitation of the origin name (Belletti and others, 2015). Without regulations for controlling GIs as a tool in providing protection for intellectual property rights (IPRs), any similar products, even if produced in another area and without certain quality criteria, can be labelled as GI.

## **B. Geographical Indication protection in Viet Nam**

Viet Nam, like many other Asian nations, became interested in protecting GIs

only relatively recently, not long after signing the TRIPS Agreement (WTO, 1994). In the following subsections, the interventions by the Government of Viet Nam in GI development are analysed, including its legal framework, the implementation and the distribution of tasks between the central and local Governments.

### **1. Progressive establishment of a legal framework**

Before a GI protection system can be properly established, a corresponding legal framework must be established. This was first done so in Viet Nam in 1995 (Vu and Dao, 2006). As the TRIPS agreement on GIs does not specify any legal means that should be enacted for setting up GIs, Viet Nam has had to make its own decisions regarding how to internally regulate its GI system.

In Viet Nam, the regulatory framework surrounding GIs was progressively made clearer between 1995 and 2005 through a series of decrees, draft laws and circulars. These laws also clearly designate responsibility for the different aspects of GIs among various levels of the Government. National experts and universities were pivotal in ensuring the first drafts of the laws were harmonious with the Vietnamese and international legal backgrounds.

The Civil Code of 1995, Article No. 796, protected GIs for the decade from 1995 to 2005, on “Appellation of Origin” (AO). The Ministry of Science and Technology, through the National Office for Industrial Property, under Decree 63/CP managed the scheme, which defined AOs and administered their accreditation. There were only two AOs during that period, a brand of fish sauce and a type of tea from Moc Chau known as “snow tea”.

However, when Viet Nam was preparing to join the WTO, the IPR regulations were revised. The reformed regulations (IP Law 2005, Article 79), allowed for any agro-food or handicraft product attributable to one geographical region, to be designated as a GI product. While organizations and individuals may theoretically apply for GIs for their products, in practice it is only possible for administrative authorities to do so. The IP law was very detailed, and its application was fast and effective, resulting in accelerated GI registrations. A preference for GIs over AOs was demonstrated, however, as geographical names could also be protected as certification trademarks.

#### *(a) Beyond the law: Diversification of the Government’s role in GI development*

The role of the Government of Viet Nam has shifted far beyond simply maintaining a legal framework to support GIs. The Government supports the

development of GIs through various actions such as providing incentives for GI projects and helping to generate GI applications. The Government has trained national GI experts, and raised the general level of awareness of GIs at the local level. In addition, the Government provides financial support for GI implementation.

The Government continues to maintain significant involvement in GI development through technical assistance, together with a database of potential Conformity of Production goods. To ensure that suppliers meet Conformity of Production requirements, the whole process is actively supervised and supported by the country's relevant authorities. National research institutions within Viet Nam have the responsibility for these tasks, in partnership with the Ministry of Science and Technology.

*(b) Government participation in GI development: What authority at what level?*

It is interesting to consider the division between the national and local levels in Viet Nam in the context of decentralisation. Durand and Fournier (2015) argued that there was no clear delineation of responsibilities with regard to GIs, leading to inefficient administration. In theory, there is a stated desire for cooperation and collaboration between local and central authorities; however, the central administration sometimes overpowers any local collaboration efforts.

In the Vietnamese system for managing GIs, the right to register is held exclusively by the central Government, while the right to manage is usually held by a local authority. Once a GI is registered, the central Government may delegate the responsibility for management of that particular GI to a provincial branch of the Department of Science, Technology and Environment. While those processes are relatively clear, what is less clear are the phases leading up to registration. The provinces have, over time, become more active in identifying potential GIs and have used their resources towards GI development, originally a domain held by the Central Government. The problem with this approach is that the provinces require federal funding and support, and this support is not always forthcoming from the central Government due to a lack of resources or will to support all GI projects identified by the provinces. Sometimes, local actors will instead resort to collective trademarks as they are easier to register and less costly.

The post-registration phase of GIs appears to be more clearly outlined, regulated and delineated among the various levels of authority. Local public authorities often have the motivation to become involved, but lack the internal resources

to do so fully. To overcome this problem, some producers and local authorities have appealed for external support through cooperation projects or private funding.

To ensure successful GI registration and implementation, there must be cooperation between the central and lower levels of government; however, the role of each level of government needs to be clarified. This is also the case in Europe according to Scudeller (2009). The case studies in section D of this study discuss in more detail the role of, and implications for local government authorities in relation to GI dynamics.

### *(c) Registered GIs in Viet Nam*

These products can be divided into two categories: (a) products that need protection; and (b) products that need to build their presence. Products that need protection are those that require GIs to prevent counterfeiting. For products that need to build their presence, GIs offer an added marketing dimension, and an accreditation of sorts. The market types of these GI products vary from small-scale goods to export commodities.

The significance of individual GI products to the national economy or food security also varies. Some of these products have strategic and symbolic value to Viet Nam; almost all GIs, even those without a level of national value, have a level of economic importance on a local scale. The presence of the most extensive range of GI-registered products in ASEAN shows the central Government is intent on using GIs to promote national heritage. This aspect has also been explored in other literature by scholars, for example Biénabe and Marie-Vivien (2015), and Jena and Grote (2010). Local government is not blind to this significance, and its participation in the founding and supporting of GI enterprises ensures that the central Government maintains a focus on local priorities.

In short, despite a relatively long establishment process, the steady legal framework and successful operational GI enterprises exist in Viet Nam. The GI scheme is well supported by the public, and the number of applications has accelerated since its establishment. The central Government's involvement in GIs is far beyond that required by the legal framework; however, it is the only source that can offer the correct support, as local economic actors are often unaware of what GIs are, and how they work.

## 2. Sustainable rural development

Currently, with economics and ecologies driving perspectives and actions, sustainability has become a key concept in a vast range of areas, one of which is rural development (Emmanuel and others, 2007). In general, sustainable rural development refers to the guaranteed sustainability and progression of rural regions in tandem with the exploitation of global opportunities (Akgun and others, 2015). This ensures that future generations will be endowed with a sustainable resource (Emmanuel and others, 2007).

In order to achieve sustainable rural development, there is a need for the integration of well-prepared and properly executed initiatives that tackle all three pillars of sustainability, i.e., the social, economic and physical aspects of the environment (Emmanuel and others, 2007). While barriers remain to attaining sustainable rural development, such as the complexity of the link between sustainability and rural areas (Akgun and others, 2015), it is best to embark upon activities within rural areas, especially agriculture (Chiritescu, 2011), and share rural development knowledge among related stakeholders (Ali and Advic, 2015).

A number of success factors can explain sustainable rural development in general, or the complex system between sustainability and rural development in particular (Akgun and others, 2015). According to Berkes and others (2003), whether sustainable rural development is achievable depends on the integrated knowledge of the natural process and natural resources as well as the interlink between the ecological and social aspects.

In addition, it is worth noting that the role of sustainable rural development is further consolidated in the 2030 Sustainable Development Agenda formulated by the United Nations in 2015, which came into force on 1 January 2016 (United Nations, 2017). In fact, sustainable rural development is one of the most notable and longest-running themes across different agendas (United Nations, 2017). In the latest agenda, the concept is reflected in goal 2 of the 17 goals: "End hunger, achieve food security and improved nutrition and promote sustainable agriculture". To achieve this, there is a need for increased investment in the infrastructure in rural areas, agricultural research and extension services, and so forth, with a view to raising agricultural productive capacity, particularly in least developed nations (United Nations, 2015).

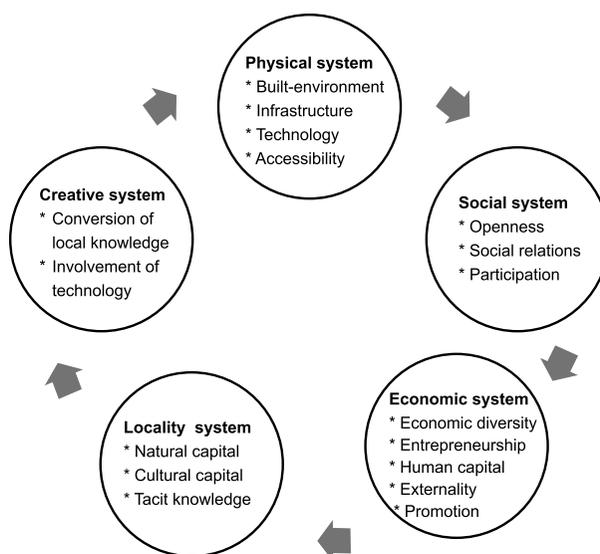
## C. Methodology

The aim of this study was to (a) identify the process of GI implementation in Viet Nam, (b) explore the role of the different administrative levels in supporting GI producers and (c) examine whether GIs contribute to the sustainable rural development in the country. A qualitative research approach, based on interviews, was chosen because it is considered suitable for providing deep insights and detailed accounts of complex phenomena (Wang, 2008).

### 1. PENTAGON model

In the context of this study, the PENTAGON model, or the five-factor approach, was selected as the evaluation tool. Gülümser (2009) pioneered the utilization of the PENTAGON model in identifying critical success factors for sustainable rural development. Apart from the traditional analysis of the three pillars (environmental, social and economic) of sustainability, the model integrates them with other two aspects (physical and creative), with the objective of providing a comprehensive illustration of, and systematic approach to the multiple dimensions of the concept (Akgun and others, 2015; Vehmas, Akgun, Van leeuwen and Nijkamp, 2010) as detailed below.

**Figure 1. The critical factors of, and driving forces required for sustainable rural development**



Source: Akgun and others, 2015.

Physical system refers to the availability, accessibility and quality of built environment, plus technology application in rural areas. Social system consists of the open-mindedness of the local communities in rural areas, such as a willingness to change, social relations and enthusiasm in development activities. Economic system refers to the competitiveness of economic diversity as well as the improved amount of entrepreneurship, human capital, externality and promotion. Locality system includes the rural nature, i.e., landscape, tradition, culture and tacit knowledge, that can influence rural development activities. Creative system implies the transformation of tacit knowledge into a fruitful outcome, i.e., the adoption of innovation in the production process.

## **2. Establishing a link between GI protection and sustainable rural development**

Viet Nam, among many other countries, has recently began considering GIs as a part of their national agricultural policy (Josling, 2006; Rangnekar, 2004), as they help to combat counterfeiting as well as strengthen the reputation and value of locally products, thus providing balanced benefits for producers, the market and the local economy (including the supply chain) (Bowen, 2010; Pecqueur and others, 2008). GIs in this context can also act to support communities that cannot compete with intensive agriculture in rural areas, through economic development and the creation of a market for them. In addition, GIs may help to promote sustainable diversification in significantly productive agricultural areas.

If GIs are accepted as policy tools, then the question arises as to whether they have a positive impact on sustainable rural development in Viet Nam. If the link between GIs and sustainable rural development exists, how can Viet Nam use GIs to promote sustainable development in rural areas? Due to their voluntary nature, the successful use of GIs as an agricultural policy tool involves paying close attention to local economic actors. GIs have no binding effect on technical practices or production systems; therefore, close monitoring is a key to ensuring their effective use and implementation. To use GIs within an agricultural policy framework, producers must be convinced to participate fully; an equal-handed negotiation between the Government and local economic actors must occur. By linking GI protection to the PENTAGON model (Gülümser, 2009) the present study analysed the connection of GIs with each of the following factors:

- (a) Physical system: The higher quality of GI products is aligned with the enhancement of the infrastructure system (Caenegem and Cleary, 2017);

- (b) Social system: GIs can empower local organisations and communities with the collective management system needed to sustain GI requirements. Governments can use GIs to promote sustainable diversification in productive agricultural areas and help prevent rural exodus;
- (c) Economic system: The product differentiation nature of GIs is a contributor to a number of rural development strategies (Folkesson, 2005). First, it boosts both the selling price and the market share of a product, increases producers' income and as a result boosts local agricultural activity, market growth and regional development (Bowen, 2010; Dogan and Gokovali, 2012; Mederos and others, 2016; Pecquer and others, 2008). Second, in the context of asymmetric information, it allows recognition of high-quality agricultural products in the market compared to those of a lesser quality (Akerlof, 1970; Dogan and Gokovali, 2012; Durand and Fournier, 2015; Folkesson, 2005; Rangnekar, 2004);
- (d) Locality system: GIs heighten attention to local resources for producing agricultural products (Gangjee, 2012) and indigenous knowledge (Charbot and others, 2016). In turn, this contributes to the autonomy of rural communities through "grassroots economics" (Bowen, 2010);
- (e) Creative system: Production systems can be significantly influenced by GIs because of the rules outlined in their Codes of Practice that can determine whether or not an industrial process can be used to process a certain product (Allaire and Sylvander, 1997).

Based on the above, five main questions were defined for this study:

- (a) What are the contributions of GIs to the economic system?
- (b) How do GIs influence the locality system?
- (c) What are the contributions of GIs to the creative system?
- (d) What are the contributions of GIs to the physical system?
- (e) What are the contributions of GIs to the social system?

### **3. Participants**

The present study is based on empirical data derived from semi-structured interviews with 19 Vietnamese policymakers and producers of GI goods. The sample included seven Vietnamese representatives of the national authorities, six officers of the Department of Science, Technology and Environment in Hoa Binh province, Thai Nguyen province and Quang Ngai province who are in charge of GIs, and six producers of Cao Phong oranges, Tra Bong cinnamon

and Tan Cuong tea. The interviews enabled the identification of the process of GI implementation in Viet Nam, the exploration of the role of the different administrative levels in supporting GI producers, and the gaining of an understanding of how GI protection influences sustainable development in rural areas of Viet Nam.

#### **4. Data collection**

Data were collected during the fourth quarter of 2016 by four researchers involved in this study. Semi-structured interviews were used to collect data on the participants' perceptions regarding GIs protection and sustainable rural development. The interview was guided by an open-ended question protocol. The participants were assured that all identifying details would be excluded from the published study. In addition, the participants received an explanatory statement describing the aims of the study, the researchers' commitment to preserving confidentiality and anonymity, and their right to pass on any question and to stop the interview at any time.

#### **5. Data analysis**

The contents of interviews were transcribed in full in order to take into account the coding analysis (Spiegel and others, 2016). NVivo (Version 11) was employed for coding. The conducting and analysis of the interviews were completed iteratively in the coding and analysis process proposed by Lichtman (2013). First, the initial coding of the data was provided by using *in vivo* codes (interviewees' terminology) and extant theory (academic terminology) to inform naming and attribution of codes (Hsieh and Shannon, 2005). Identical codes and resolved issues were then merged with different understanding of the meaning of codes through review and clarification. Next, the codes were aggregated into categories (higher-level constructs that describe several codes on a more abstract level). The final categories, sub-categories and their links were considered and remaining ambiguities were resolved.

### **D. Research results**

This section analyses the results of qualitative study to discover the relationship between GIs protection and sustainable rural development in Viet Nam, which includes five factors as outlined above – economic system, locality system, creative system, physical system, and social system.

#### **1. What are the contributions of GIs to the social system?**

In Viet Nam, the social system is most closely associated with stakeholder engagement in rural development. Particularly, throughout the GI establishment

process, inclusiveness is important, as policymaker number 3 pointed out:

“The local Government has relentlessly encouraged the participation of as many producers and processors as possible, implying their crucial role in the success of GIs.”

Therefore, the most notable impact of GIs on the social system is its contribution to the development of representative associations for GI-registered products in the territory. According to Reviron and others (2009), there are two main types of collective organizations in relation to GIs, regardless of the development level of the country. The first is inter-professional associations. This type of association, while comprising members from multiple levels across the supply chain, from producers to distributors, is not involved in any commercial activity. Instead, it acts as a coordinator that controls the activities of members with a view to ensuring the attainment of the common goal. Collective decisions are made by the association. The second type of collective organization is a professional association. The major disparity between the two types of associations results from the delegating of members in the supply chain. For this type, delegates from a single level of the chain are selected. Nonetheless, the structure of both types of organization includes an assembly of delegates and a board.

The majority of existing associations related to GI-registered products in Viet Nam belong to the inter-professional association group. Producer number 1 explained the crucial role of such associations:

“The underlying reason for establishing associations in Viet Nam lies within the lack of communication and connection among producers themselves”.

This weakness is further exposed by the fact that a large number of producers are restricted by exclusivity clauses and struggle to look for a market to penetrate. Recently, several large Vietnamese retailers, such as Intimex or Vinmart, put forward a new model, in which they will enter into an exclusive sales agreement with producers, followed by a strict daily and weekly quality control process until collection and packaging before distribution. More specifically, producer number 1 noted that:

“The recommendation of the new model has since received positive feedback from producers alike, who reckon that the expansion of the model will leverage GIs protection at its best”.

Furthermore, associations enhance their market connection role by acting as an independent party in auditing the unique features of GIs, the aim of which

is to guarantee sustainable development. Likewise, members are capable of deriving benefits from associations as the latter lay the groundwork for sharing expertise and networking opportunities, which will further foster rural development dynamics (Bramley and others, 2011). Having said that, their self-management and less than professional nature still raises a question regarding the effectiveness and efficiency of these organisations (policymaker number 4).

## **2. What are the contributions of GIs to the physical system?**

The infrastructure in rural areas has grown significantly in tandem with the development of GIs in Viet Nam. The construction of bottling plants on Phu Quoc Island in southern Viet Nam is a clear example, as locating these plants there has contributed greatly to the island's physical system. Other areas, such as Luc Ngan district, Bac Giang province (with GI-registered lychees) and Tra My district, Quang Nam province (notable for its GI-registered cinnamon), have experienced similarly positive infrastructure enhancement. The latter is located in a mountainous region. Policymaker number 2 noted that:

“Thanks to the successful GI registration, it has become more imposing and attracted a rising wave of producers.”

Furthermore, producer number 1 noted that:

“Roads are to be widened to pave the way for business tours to local farms. Dams, tanking and pipeline systems have been installed to facilitate the use [by] farmers.”

In fact, underdevelopment and lack of investment are the two most notable issues of the current infrastructure system of Viet Nam, mainly due to inadequate budgets for the local Governments, which shoulder the major responsibility for the system, according to policymaker number 8. Simultaneously, the National Office of Intellectual Property (NOIP) can barely support the situation, due to the shortage of human resources, according to policymaker number 4.

## **3. What are the contributions of GIs to economic system?**

Having acted as a pillar in the agricultural sector of the European Union's countries (Bramley and others, 2011), GIs in Viet Nam have proved to have had a similar impact on the economic system of sustainable rural development, the benefits of which are enjoyed by a vast range of stakeholders. One of the most remarkable economic gains from GIs is the promotional advantage of such products. To be more specific, GIs have the power to signal the quality of agricultural products thanks to an improved reputation as a socially transmitted

device (Bramley and others, 2011) through multiple communication channels, such as word-of-mouth or advertising, according to policymaker number 6.

The increase in reputation has led to a considerable rise in the production volume, associated with the extensive production areas to ensure a sufficient supply for the rising social product demand. Along with this comes the premium price of the product, which confirms its status and high quality in the market. As a result, the income of producers is significantly improved. Cao Phong orange producers are a worthwhile example for this. Over the last three years, the value of Cao Phong oranges has improved dramatically. This fact was confirmed by producer number 2, who noted that:

“Around five years ago, the farm gate value of one kilogramme of oranges from Doai Village ranged between only 4,000 VND up to the maximum at 9,000 VND. However, thanks to the GI registration of the orange, the farm gate value has increased to at least 18,000 to 20,000 VND per kilogram or even up to 30,000 to 35,000 VND per kilogram at the end of the season.”

Another example is the case of Phu Quoc fish sauce, the only GI in Viet Nam so far as well as the first in Viet Nam and the ASEAN region, to be protected by the appellation of origin in all European Union countries since 2012 (European Union-MUTRAP, 2014). Most notably, registration as a GI has seen a leap in the export volume of Phu Quoc fish sauce. This is demonstrated by the fact that in 2002, after being registered in Viet Nam, the quantity of Phu Quoc fish sauce exports hovered at around 500,000 litres at a price of approximately 90 cents per litre (Duong, 2002). After 2012 when it was given protection by the European Union, exports annum to more than 30 countries increased by up to 5 million litres (accounting for 15% of the total production) per (Duc, 2016) together with a rise in price by around 30% (Tran, 2015). This positive record further strengthens the economic value of GIs to Viet Nam's economy.

On top of that, GIs enable producers to strengthen their market share and position as well as expand their networking opportunities with vegetable and fruit supplying companies. For example, the Vegetables and Fruit One Member Limited Liability Company is the main wholesaler for Cao Phong oranges.

A broader impact of GIs on the economic system can be seen from a community perspective, as GIs are widely regarded as a community asset. That is, they are largely instrumental in generating sustainable development at the region.

Furthermore, one policymaker emphasized the positive impact of GIs on employability in rural areas. According to policymaker number 1:

“GIs have been credited for boosting local employment opportunities for an array of workers of different levels. In turn, this prompts the reduction of the issue of urban migration, a presentably debatable issue in Viet Nam.”

Moreover, GIs can have a positive influence on the development of associated services such as eco-tourism (Lun and others, 2016). As mentioned above, the local reputation of a product also helps to improve the reputation and uniqueness of the area; that, in turn, creates strong tourism interest and a higher number of visitors to the area. For example, the relocation of bottling plants to Phu Quoc Island has encouraged manufacturers to organize frequent business tours to promote Phu Quoc fish sauce and other local products, thus making a partial contribution to the socio-economic growth of the area.

In addition, the registration of GIs has seen a shift in the management mechanisms of registered products. This point was confirmed by policymaker number 2:

“Prior to the introduction of GIs, the majority of these products were self-managed. However, with the appearance of a new policy tool, the involvement of the Government from both the local and the central levels has since become an integral part”.

Nonetheless, there remains a huge problem related to the development of GIs in local areas such as counterfeiting. The fact that the area per se makes a remarkable gain in reputation has caused some external producers to grow similar products in the region and then claim them as being GI-registered to sell them at a premium price. This violation negatively affects the reputation of GI products in particular and the economic system of a GI-registered region generally.

#### **4. How do GIs influence the locality system?**

GIs have raised the awareness of preserving natural capital and traditional value in Viet Nam, in part due to the mandatory qualification stage of GI registrations (Bramley and others, 2011). First, certain environmental conditions must be met in order to produce GI-registered products of high quality. For example, Bac Lieu province, with its advantage of a coastal position and climate, is famous for its salt fields that have attracted multiple international clients such as those from the Republic of Korea. In this regard, policymaker number 4 noted that:

“...farmers and producers should be aware of that condition, which propels their products to stand out among others with regard to uniqueness and quality.”

However, it should be noted that these environmental conditions are not unchangeable, but instead, can decline. In fact, GIs are utilized in their geographical areas. This implies that the preservation of natural capital is an indirect result of GI registration and protection (Bramley and others, 2011). Consequently, according to policymaker number 2:

“It is necessary to teach farmers and producers how to ensure product quality and the production process and, most importantly, preserve the condition for development.”

In addition, the unique nature of GIs gives them a greater advantage with regard to the preservation of traditional knowledge than any other form of intellectual property rights (Bramley and others, 2011). Van Yen District Authority, famous for its GI-registered cinnamon, organized a festival, inviting neighbouring provinces as well as cinnamon producers and foreigners, to introduce its cinnamon. Another purpose of the festival was to promote the traditional culture, clothes, music and dancing, among other aspects.

In addition, GI development in Viet Nam has been increasingly instrumental in preserving the uniqueness of products rooted in specific territories or local areas, especially when the region is encouraged to produce traditional products rather than focusing on alternative products. In fact, GI development makes a great contribution to the consolidation of regional identity and rural development (Bramley and others, 2011). To achieve both of these aspects, the involvement of local Government is particularly important. Policymaker number 3 emphasized the fact that:

“GIs would pave the way for better planning by local Government as well as delivery of more effective solutions to protect the area, the environment and the product value. In other words, local Government plays an important role in ensuring consistent product quality, environmental protection and economic stabilization.”

However, this approach still faces constraints, as local government management has been limited to the commercial facet, while producers have to take the main steps themselves.

## 5. What are the contributions of GIs to the creative system?

The involvement of technology in sustainable rural development has become widely popular across the world, and Viet Nam is no exception. For example, in order for a GI-registered product to penetrate European or American markets, a certain number of technical barriers in these importing countries must be overcome. This fact has grown in importance for Viet Nam, particularly when the country has joined global organizations such as WTO. Consequently, various agricultural practices have been applied extensively. In Viet Nam, VietGAP and GlobalGAP are the two most prominent standards. While VietGAP is the nation's own standard emerged since 2008, GlobalGAP is a common global one, both of which aim to ensure the conformity to supplying standards. That is, their utilisation enables the production method to produce agricultural products of clean and safe quality (Quacert, 2016). Taking storage technology as an example, policymaker number 5 pointed out the benefits for producers:

“These days, commonplace storage technology not only helps lengthen the duration of product storage but also reduces, to a certain extent, the use of storage chemicals that have proved to be harmful in many cases. In turn, this can improve profitability for producers.”

Technology use also allows a considerable reduction in manual work and the time spent on the production process, which can also create benefits. For example, without the use of an automatic watering system, the manual watering on a farm normally takes several days, which allows pests to breed and transit to unwatered areas, and decimate the harvest.

Apart from the above advantages, there are some disadvantages related to the involvement of technology. Difficulty in attaining cost efficiency is the most apparent one, as it often prevents producers from moving forward. In addition, some experts hold the opinion that the application of technological innovation in rural development in general and GI-registered production should be put under strict control. Their reason for that view is to ensure the product attributes remain unchanged. Specifically, irrespective of the standard regional producers apply, they must be able to retain the locally unique feature of the product. This is the case for Tan Cuong and Thai Nguyen tea as well as Cao Phong oranges, which have specially customised technological procedures with an aim of achieving the above-mentioned goal. Moreover, the technology must be innovative and modernised enough for it to be used in the production procedure, as out-of-date technology may lead to counter-productivity. Thus, policymaker 4 concluded that:

“GI producers in Viet Nam should apply technology to their products when research into that type of technology has been conducted carefully.”

## **E. Policy implications and recommendations**

This section looks at the policy implications for the Government of Viet Nam in improving GI protections and offers recommendations for local producers to develop their strategies to take full advantage of GIs and promote sustainable rural development in Viet Nam.

### **1. Improving the regulatory framework on geographical indications**

Undoubtedly, GIs in Viet Nam have matured convincingly during recent years. Nonetheless, producers in general still face obstacles in registering and then protecting GIs, mainly due to an implicit legal framework. Therefore, it is important that the central Government makes necessary amendments to the legislative framework to assist producers.

To be more specific, laws, decrees, circulars and other regulations should provide a detailed process for every necessary step in GI registration. International regulations on protecting intellectual property in general, and GIs in particular, should be strictly applied. In addition, legal documents should include the updated criteria for the subsequent management, monitoring and control of GIs. More importantly, the central Government should formulate a complete Code of Practice for GIs. Associated contents such as entrepreneurship, business establishment and quality standards should be clarified in relevant policies and regulations alike. Furthermore, NOIP should further foster and support local areas that have eligible products for registration as GIs and international brands.

Finally, penalties should be increased for any violations of GIs regulations or for counterfeiting, such as high fines. This should be embedded in updated regulations at all levels of government to ensure stricter application.

### **2. Improving the quality control system of post-GI registration**

This study recommends that the Government employ international experience in quality control systems as well as innovative approaches and methods such as those in use in the European Union, where GIs originated and have a long history of success. In addition, the updated regulations of developed countries should be analysed in order to obtain key lessons that can be applied in Viet

Nam. Although the degree of development among different countries could create difficulties in applying international experience, learning from such methodologies can assist Viet Nam's authorities and producers in developing a strategic roadmap in the long term.

Additionally, the European Union management mechanism is a good example for Viet Nam's agricultural sector. According to policymaker number 2, the mechanism often includes an independent quality monitoring and control organization, which contributes to a guarantee of product quality before market distribution. Therefore, establishing a similar organization in Viet Nam would give rise to further transparency in the quality control system of GIs.

### **3. Providing training and support for GI producers**

GIs play an essential role in sustainable agricultural development, which not only has a natural heritage to protect but also has special commercial characteristics to be used in market promotion (Damary and others, 2013). Therefore, it is necessary for all stakeholders engaged in the value chain of GIs to be equipped with sufficient knowledge, tools and techniques needed to participate in two of the most important actions in relation to GIs, i.e., preservation and promotion. In other words, there is a crucial need for providing relevant stakeholders with training courses. This will enable them to enhance their expertise in areas such as supply chain management, the common code of conduct in the domain, how to protect their products, what action they can apply in the process, among others. By doing so, this will ensure that there will be more experts in the field and, most importantly, that stakeholders can improve their contribution to regional sustainability.

Groups of stakeholders that will have an interest in training courses covering different objective, include:

- (a) Value-chain stakeholders, such as producers and their organisations;
- (b) National and local authorities;
- (c) Regulatory institutions, including NOIP;
- (d) Supporting organizations, including non-governmental organizations, academic and research organizations, practitioners in the field of GIs, consumer associations and environmental protection organisations.

Training course curricula can vary, from the introduction of technological advancement to new policy promulgation. Table 1 presents an overview of some suggestions for course elements serving different needs.

**Table 1. Overview of some suggestions for course elements for GI producers**

Training elements	Details	Suggested audience
Fundamentals of GIs	<ul style="list-style-type: none"> <li>• Introduction to the concepts</li> <li>• The role of GIs</li> <li>• Relevant authorities related to the development of GIs</li> <li>• GI situation in Viet Nam</li> </ul>	<ul style="list-style-type: none"> <li>- Value-chain stakeholders</li> <li>- Supporting organizations</li> </ul>
Value chain	<ul style="list-style-type: none"> <li>• The phases across the GI value chain</li> <li>• GIs and sustainable development</li> <li>• Agricultural techniques</li> </ul>	<ul style="list-style-type: none"> <li>- Value-chain stakeholders</li> <li>- National and local authorities</li> <li>- Regulatory institutions</li> <li>- Supporting organizations</li> </ul>
Laws and regulations	<ul style="list-style-type: none"> <li>• The GI legal framework in Viet Nam and other countries</li> <li>• Policies related to the development of GIs (registration)</li> <li>• Scope of protection</li> <li>• Trade agreements</li> <li>• Counterfeiting problems</li> </ul>	<ul style="list-style-type: none"> <li>- Value-chain stakeholders</li> <li>- National and local authorities</li> <li>- Regulatory institutions</li> <li>- Supporting organizations</li> </ul>
Quality management	<ul style="list-style-type: none"> <li>• International and domestic quality standards</li> <li>• Code of practice</li> </ul>	<ul style="list-style-type: none"> <li>- Value-chain stakeholders</li> <li>- National and local authorities</li> <li>- Regulatory institutions</li> </ul>
Marketing/promotion	<ul style="list-style-type: none"> <li>• The potential for GIs in domestic and international markets</li> <li>• Case studies</li> <li>• Support from authorities in promoting GIs</li> </ul>	<ul style="list-style-type: none"> <li>- Value-chain stakeholders</li> <li>- National and local authorities</li> </ul>

#### **4. Improving the policy on harnessing GIs for sustainable rural development**

To continue developing GIs and using them as a tool for sustainability in Viet Nam's rural areas, support through a sound policy system is crucial. Specifically, such policies should cover the five aspects of the PENTAGON model as detailed below.

##### *(a) Policy implications for the physical system*

The infrastructure needed for developing GIs varies. Traditionally, the construction of infrastructure such as roads and factories has received more attention and is the main focus of investment. However, scholars have pointed out that natural infrastructure, such as sustainable agriculture management, albeit an equally cost-effective alternative approach, receives significantly less investment (Gartner, 2015).

For that reason, the Government should continue to encourage investment in agriculture and rural development. With a view to creating a foundation for investment in this domain, the Government should prioritize projects based on their opportunities and risks. That will enable (a) the identification of the best locations, (b) the assessment of conditions and (c) the scale of development to be designed to achieve environmental benefits as well as returns on investment (Gartner, 2015). Moreover, Reuben (2015) proposed cross-sectoral cooperation, such as a hybrid of food-energy-water, which can serve multiple purposes at the same time and boost the scale of natural infrastructure investment.

Regarding funding, investment from both the public and private sectors should be promoted. On the one hand, this can be done through incentives provided by the Government, such as land rental reduction or exemption, and low interest rates, all of which will benefit investors. On the other hand, infrastructure projects can be financed through public-private partnerships, which is the prevalent investment method both in developed and in developing countries, as they display more stability and transactional capabilities.

*(b) Policy implications for the social system*

The influential role of associations in the agricultural sector should be further enhanced. Instead of limiting membership to among producers, the Government of Viet Nam could also require the mandatory representation of members from the local authority. This will increase the opportunity for discussions between the different stakeholders as well as pave the way for greater collaboration and networking between both parties.

Moreover, the role of NOIP should be more prominent, as it plays an important part in protecting GIs both at the domestic and the international levels. NOIP should also increase its collaboration with the Ministry of Agriculture. As the agency directly responsible for managing GIs in Viet Nam, NOIP can provide strong support in terms of completing and enhancing relevant regulations. Furthermore, its capability for controlling and monitoring agricultural projects, especially those associated with developing and protecting GIs, should be further strengthened by the central Government, particularly the Ministry of Science and Technology. At the same time, NOIP could support the exploration and application of sustainable production practices relevant to the GI system, thus enabling GIs to contribute to rural development.

In addition, the local authorities should encourage the participation of local actors, such as farmers, producers and associations in acquiring GI recognition.

Local authorities could organise periodical festivities linked to GI products as a way of further engaging communities and promoting GIs. This would not only enable authorities to take into consideration the benefits and interests of local stakeholders in the GI product system, but will also preserve and take advantage of traditional knowledge for use in GI development.

*(c) Policy implications for the economic system*

Local authorities should further raise awareness of local farmers, consumers and other relevant stakeholders of the real value of these community assets. It is important to (a) continue raising awareness of GI products, the process and difference from non-GI products among the public, (b) increase access by a wider range of consumers or any objects having interests. After all, people are the most crucial factor; therefore, the concept of protecting GIs should be expanded from an individual basis to the local, and in a broader sense, national levels (policymaker number 4).

*(d) Policy implications for the locality system*

According to Charbot and others (2016), government support is important for (a) helping people in GI localities to derive benefits from origin-based schemes through monitoring and the consolidation of the legal protection against fraud and counterfeiting, and (b) assisting collective organisations, quality control and market strategies. Charbot and others (2016) also commented on the fact that the lack of government involvement can lead to inefficiencies or counterproductive results for GIs.

The intervention of governmental organizations, both at the national and local levels, is essential to the development of GIs through: (a) regulating products and names to be registered; (b) document submission; (c) cancellation of registration; (d) the fees involved and timing; (e) acting as the authority responsible for managing registration; and (f) control systems and the levels of protection (Kireeva, 2010).

It should be noted that in terms of GIs protection, the role of local government should be made more prominent due to its capability to directly manage the production process in the region. Furthermore, financial and personnel support should be provided by local authorities to local producers who have the potential for producing high-quality agricultural products as well as through assistance in seeking the appropriate distribution channels for local products. By doing so, this can ensure the effective operation of every phase of the local value chain.

In fact, GIs improve recognition of the relationship between natural conditions such as biological resources, water, land, cultural heritage and so on. Therefore, in setting relevant regulations, legislators should consider the link of GI products with the ecology as being one of the criteria for GI specificity (Damary and others, 2013). Specifically, GIs can be used as a label for environmental protection to increase awareness among consumers. In addition, to encourage acceptance of environmental protection and quality standards as criteria for sustainable agriculture, the code of practice for the entire GI production process as well as technical and economic evaluation should be adopted and strictly controlled.

*(e) Policy implications for the creative system*

One of the most essential tasks that the Government of Viet Nam should take on is the responsibility for fostering research and development (Cohen, 2014), which paves the way for the improvement of agricultural production and marketing (Milovanovic, 2014). According to Bernanke (2014), government assistance will be most effective when research and development are treated as a long-term investment; the result will have a positive correlation with support stability. In this context, it is suggested that the Government should adopt a combination of policy solutions to foster research and development in GIs, while also dealing with project features, funding and human resource issues.

Regarding project features, Viet Nam should focus on developing technology that minimizes the effects on the quality and nature of GI products, which are the foundation of the products' reputation. Meanwhile, due to the deteriorating environmental problems in many provinces, use of green technology is encouraged as a way to boost the locality system of sustainable development.

In terms of funding, high costs remain an obstacle for a number of GI producers in Viet Nam. To alleviate this problem, the Government can use several tools, such as direct government funding, grants to academic institutions or private researchers or tax incentives (Bernanke, 2014). This type of funding is most appropriate for large-scale and high-risk projects involving a large pool of stakeholders, such as infrastructure construction. Furthermore, the Government can join hands with development banks and non-governmental organizations in financing research and development projects in the field of geographical indications. In addition, in this age of globalisation, the Government should pave the way for open connection and networking between entrepreneurs and international investors, such as angel investors and venture capitalists. Furthermore, by organizing or attending international investment promotion exhibitions, the Government could increase the chance of acquiring funds for

GI-related projects.

Regarding human resources, the quality and quantity of research and development personnel are a critical factor in fostering innovation in agriculture in general, and GIs in particular (Bernanke, 2014). Therefore, stakeholders engaged in the value chain of GIs should be equipped with tools and techniques associated with GI preservation and promotion, such as supply chain management, the common code of conduct in the domain, and methods for protecting their products. This will ensure that there are more experts in the field and, most importantly, stakeholders will be able to improve their contribution to regional sustainability

### **5. Recommendations for future studies**

Although the five research questions discussed above have been answered through this study, limitations remain. First, the study did not focus on the value chain of the development of GIs. For that reason, it may have been able to fully collect the bottleneck-related answers from producers, which can contribute to addressing the innovation and sustainability of the supply chain. Together with that, it has recorded wider opinions from policymakers so to guarantee the balanced views of the two parties in terms of GIs. Second, only one model was used to evaluate the link between GIs and sustainable rural development in Viet Nam. For future studies, a combination of different models can be used to strengthen the comprehensive findings regarding the two constructs. Overall, this research will pave the way for further research in the field, especially empirical research, to bridge the existing gap on the topic, i.e., clarification of the relationship between GIs and sustainable rural development.

### **F. Conclusion**

This study has attempted to explore the relationship between GI protection and sustainable rural development in Viet Nam, by considering the role of public policies in this matter and the involvement of local producers. The empirical results have shown that GI protection and implementation has made significant impacts on sustainable rural development. This is evidenced by the (a) economic development, (b) improvement of the locality system, (c) application of technology in producing GI products, (d) development of local infrastructure and (e) protection of the social system. However, weaknesses remain in controlling and maintaining the quality of products after GIs have been registered. The study provides several suggestions for the Government of Viet Nam to make better use of GIs as a policy tool in enhancing sustainable rural development.

## References

- Akerlof, G. A. (1970). The market for 'lemons': Quality uncertainty and the market mechanism, *Quarterly Journal of Economics*, vol. 84, No.3; pp.488-500.
- Akgun, A. A., T. Baycan and P. Nijkamp (2015). Rethinking on sustainable rural development, *European Planning Studies*, vol. 23, No. 4; pp. 678-692.
- Ali, L., and A. Advic (2015). A knowledge management framework for sustainable rural development: The case of Gilgit-Baltistan, Pakistan, *The Electric Journal of Knowledge Management*, vol. 13, No. 2; pp. 103-165.
- Allaire, G., and B. Sylvander (1997). Qualité spécifique et innovation territoriale, *Cahiers d'Economie et de Sociologie Rurales*, vol. 44; pp. 29-59.
- Anders, S., and J. A. Caswell (2009). The benefits and costs of proliferation of geographical labelling for developing countries, *Estey Centre Journal of International Law and Trade Policy*, vol. 10, No. 1; pp. 77-93.
- Belletti G., Marescotti A., & Touzard J. (2017). Geographical Indications, Public Goods and Sustainable Development: The roles of actors' strategies and public policies, *World Development*, 98, pp. 45-57.
- Benerji, M. (2012). Geographical indications: Which way should ASEAN go? *Boston College Intellectual Property and Technology Forum*, vol. 1, No. 2.
- Berkes, F., J. Colding and C. Folke (2003). *Navigating Social-Ecological Systems*. Cambridge University Press.
- Bernanke, B.S. (2011). 'Promoting Research and Development – The Government's Role', *Issues in Science and Technology*, 27 (4). Available at: <http://issues.org/27-4/bernanke/> [Accessed 01 June 2017]
- Biénabe, E., and D. Marie-Vivien (2015). Institutionalizing geographical indications in southern countries: Lessons learned from Basmati and Rooibos. *World Development*. Available at [www.sciencedirect.com/science/article/pii/S0305750X15000881](http://www.sciencedirect.com/science/article/pii/S0305750X15000881).
- Bowen, S. (2010). Embedding local places in global spaces: Geographical indications as a territorial development strategy, *Rural Sociology*, vol. 75, No. 2; pp. 209-243.
- Bowen, S. & Zapata, A. (2009). Geographical indications, terroir, and socioeconomic and ecological sustainability: The case of tequila. *Journal Of Rural Studies*, 25(1), 108-119.

- Bramley, C., E. Bienabe and J. Kirsten (2011). The economics of Geographical Indications: Towards a conceptual framework for Geographical Indication research in developing countries, *The Economics of Intellectual Property*; pp. 109-149.
- Caenegem, W., Cleary, J. (2017). *The Importance of Place: Geographical Indications as a Tool for Local and Regional Development*, Springer
- Chabrol, D., Mariani, M. & Sautier, D. (2017). Establishing Geographical Indications without State Involvement? Learning from Case Studies in Central and West Africa, *World Development*, 98, pp. 68-81.
- Chiritescu, V. (2011). Sustainable rural development in Romania – needs and priority objectives, *Agricultural Economics and Rural Development*, vol. 8, No. 1; pp. 147-160.
- Cohen, S. (2014). 'The Role of Government in the Transition to a Sustainable Economy', *The Huffington Post*, 02 October. Available at: [http://www.huffingtonpost.com/steven-cohen/the-role-of-government-in\\_b\\_4759621.html](http://www.huffingtonpost.com/steven-cohen/the-role-of-government-in_b_4759621.html) [Accessed 05 June 2017]
- Damary, P., Bernardoni, P., Couillerot, C., Perret, A., Gerz, A., Vincent, M. & Sarang, S. (2017). *Linking people for quality products – Sustainable interprofessional bodies for geographical indications and origin-linked products*, FAO/REDD, Training Manual), Rome, Italy.
- Dogan, B., & Gokovali, U. (2012). Geographical Indications: The Aspects of Rural Development and Marketing Through the Traditional Products. *Procedia - Social And Behavioral Sciences*, 62 (World Conference on Business, Economics and Management (BEM-2012), May 4-6 2012, Antalya, Turkey), 761-765.
- Duc, T. (2016). Phu Quoc fish sauce: Open opportunities for export, Tuoi Tre, 13 November. Available at <http://tuoitre.vn/tin/kinh-te/20161113/nuoc-mam-phu-quoc-rong-duong-xuat-ngoai/1218406.html> (accessed 25 February 2017).
- Duong, T. L. (2002). Phu Quoc fish sauce to be protected in EU. Nguoi Lao Dong, 22 May. Available at <http://nld.com.vn/thoi-su-trong-nuoc/nuoc-mam-phu-quoc-se-duoc-bao-ho-tai-eu-83461.htm> (accessed 25 February 2017).
- Durand, C., and S. Fournier (2015). Can Geographical Indications modernize Indonesian and Vietnamese agriculture? Analyzing the role of national and local Governments and producers' strategies, *World Development*. Available at [xdoi:10.1016/j.worlddev.2015.11.022](https://doi.org/10.1016/j.worlddev.2015.11.022).

- Emmanuel, A., O-S. Samuel and A-K. Theophilus (2007). Sustainability assessment of rural development: A review of methodologies, *Studies on the Agricultural and Food Sector in Central and Eastern Europe*, vol. 39; pp. 18-27.
- European Union-MUTRAP (2014). Phu Quoc Fish Sauce Brochure, European Trade Policy and Investment Support Project.
- Folkesson, C. (2005). Geographical Indications and Rural Development in the EU. PhD Thesis. School of Economics and Management, Lund University.
- Food and Agriculture Organisation of the United Nations (2013). Linking people, places and products: A guide for promoting quality linked to geographical origin and sustainable geographical indications. Office of Knowledge Exchange, Research and Extension, FAO, Rome.
- Galtier, F., G. Belletti and A. Marescotti (2013). Factors constraining building effective and fair geographical indications for coffee: Insights from a Dominican case study, *Development Policy Review*, vol. 31, pp. 597-615.
- Gangjee, D. S. (2012). Geographical indications and cultural heritage, *WIPO Journal*, vol. 4; pp. 92-102.
- Gartner, T. (2015). 'Design business case and pipelines for scalable investment', International Union for Conservation of Nature, 17 March. Available at: <https://www.iucn.org/content/three-ways-increase-investment-natural-infrastructure-home-and-around-world-0> (accessed 08 June 2017)
- Gülümser, A. A. (2009). Rural areas as promising hot spots: sustainable development scenarios, PhD Thesis. Istanbul Technical University, Istanbul.
- Hsieh, H. and S. Shannon (2005). Three approaches to qualitative content analysis, *Qualitative Health Research*, vol. 15; pp. 1277-1288.
- Jena, P. R. and U. Grote (2010). Changing institutions to protect regional heritage: A case for geographical indications in the Indian agri-food sector, *Development Policy Review*, vol. 28, No. 2; pp. 217-236.
- Josling, T. (2006). The war on terroir: Geographical Indications as a transatlantic trade conflict, *Journal of Agricultural Economics*, vol. 57, No. 3; pp. 337-363.
- Kireeva, I. and B. O'Connor (2010). Geographical Indications and the TRIPS Agreement: What protection is provided to Geographical Indications in WTO members? *Journal of World Intellectual Property*, vol. 13, No. 2; pp. 275-303.

- Le Goffic, C., & Zappalaglio, A. (2017). The Role Played by the US Government in Protecting Geographical Indications. *World Development*, 98, pp. 35-44.
- Le, T.T.H. (2016). 'The New Evolution of Protection of GIs', *VNU Journal of Science: Policy and Management Studies*, 32 (1), pp. 68-78.
- Lichtman, M. (2013). *Qualitative Research in Education: A User's Guide*. SAGE Publications Los Angeles, United States.
- Lun, L-M., H. Pechlaner and M. Volgger (2016). Rural tourism development in mountain regions: Identifying success factors, challenges and potentials, *Journal of Quality Assurance in Hospitality and Tourism*, vol. 17, No. 4; pp. 389-411.
- Medeiros, M.L., Passador, C.S., and Passador, J.L. (2016). 'Implications of GIs: A Comprehensive Review of Papers Listed in CAPES' Journal Database', *Innovation and Management Review*, 13, 315–329.
- Milovanović, S. (2014). The role and potential of information technology in agricultural improvement, *Economics of Agriculture*, (61) 2 (471-485)
- Pecqueur, B., M. Hirczak, M. Moalla, A. Mollard, T. Rambolinaza and D. Vollet (2008). From the basket of goods to a more general model of territorialized complex goods: Concepts, analysis grid and questions, *Canadian Journal of Regional Science*, vol. 31, No. 2; pp. 241-259.
- QUACERT (2016). Vietnam Certification Centre, Directorate for Standards, Metrology and Quality, Available at [www.quacert.gov.vn/en/home.h6.html](http://www.quacert.gov.vn/en/home.h6.html) (accessed 16 January 2017).
- Rangnekar, D. (2004). The socio-economics of geographical indications: A review of empirical evidence from Europe. UNCTAD/ICTSD capacity building project on intellectual property rights and sustainable development. Available at [www.ictsd.org/downloads/2008/07/a.pdf](http://www.ictsd.org/downloads/2008/07/a.pdf).
- Reuben A (2015). Gap between rich and poor 'keeps growing'. BBC News; 2015. <http://www.bbc.co.uk/news/business-32824770>. Accessed 01 June 2017.
- Reviron, S., E. Thevenod-Mottet and N. El Benni (2009). Geographical Indications: Creation and distribution of economic value in developing countries. National Centres of Competence in Research Trade Working Papers, No. 14. Berne, Switzerland.
- Scudeller A. (2009). Les produits sous indications géographiques. Avantages et inconvénients pour les producteurs ; le rôle des institutions régionales et locales. In : Tekelioglu Y. (ed.), Ilbert H. (ed.), Tozanli S. (ed.). Les produits de terroir, les indications géographiques et le développement local durable des pays méditerranéens. Montpellier : CIHEAM, 2009. p. 67-71.

- Spiegel, O., P. Abbassi, M. Zylka, D. Schlagwein, K. Fischbach and D. Schoder (2016). Business model development, founders' social capital and the success of early stage Internet start-ups: A mixed-method study, *Information Systems Journal*, vol. 26, No. 5; pp. 421-449.
- Tran, H. (2015). Why has Phu Quoc fish sauce been more successful than any other GIs? *Vietnam Quality*, 22 December. Available at <http://vietq.vn/vi-sao-trong-43-chi-dan-dia-ly-chi-co-nuoc-mam-phu-quoc-thuc-su-thanh-cong-d78551.html> (accessed 25 February 2017).
- United Nations (2015). Resolution adopted by the General Assembly on 25 September 2015. Available at [www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/70/1&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E) (accessed 25 February 2017).
- United Nations (2017). The Sustainable Development Agenda. Available at ([www.un.org/sustainabledevelopment/development-agenda/](http://www.un.org/sustainabledevelopment/development-agenda/)) (accessed 24 February 2017).
- Vehmas, J., A. A. G. Akgun, E. Van Leeuwen and P. Nijkamp (2010). Synergies in multi-scale inter-linkages of eco-social systems. socioeconomic sciences and humanities (SSH) Collaborative Project. Retrieved from [www.ipe.ro/SUMMARY\\_en\\_SMILE\\_2008-2011\(1\).pdf](http://www.ipe.ro/SUMMARY_en_SMILE_2008-2011(1).pdf).
- Vittori, M. (2010). The international debate on geographical indications (GIs): The point of view of the global coalition of GI producers, *Journal of World Intellectual Property*, vol. 13, No. 2; pp., 304-314.
- Vu, T. B. and D. H. Dao (2006). Geographical indication and appellation of origin in Vietnam: Reality, policy, and perspective. Institute of Policy and Strategy for Agricultural and Rural Development., Hanoi.
- World Bank (2017). See <http://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=VN> (accessed 24 February 2017).
- WTO (1994). Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement). Retrieved from [https://www.wto.org/english/docs\\_e/legal\\_e/27-trips.pdf](https://www.wto.org/english/docs_e/legal_e/27-trips.pdf).

# Part I

## Chapter 2

### **The roles of geographical indication in trade promotion and local development: Case study of Cambodia's Kampot pepper<sup>1</sup>**

*Pheakdey Heng and Vannarith Chheang*

#### **Introduction**

Since joining the World Trade Organization (WTO) in 2004, Cambodia has carried out legal and institutional reforms to conform with the standard regulations of WTO, including the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). The introduction of geographical indications (GI) to Cambodia is a relatively new concept.

In 2002, the Law Concerning Marks, Trade Names and Acts of Unfair Competition (Trade Mark Law) was enacted by Cambodia with a procedural sub-degree passed in 2006. The Trade Mark Law aims to (a) protect the marks and trade names duly registered in the register of marks in Cambodia, and (b) prevent acts of unfair competition on the creation and utilization of trademarks and trade names. The Ministry of Commerce (MoC) oversees trademarks and trade names registration.

In 2003, the Law on Patents, Utility Model Certificates and Industrial Designs (Patent Law) was passed with a procedural sub-degree issued in 2005. The Patent Law provides protection for granted patents and utility model certificates and/or registered industrial designs in Cambodia. It aims to promote innovation, scientific and technological research and development as well as to stimulate trade and investment, promote the transfer of technology, and provide protection for industrial property rights.

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<sup>1</sup>Additional resources for this chapter are available online at <http://www.unescap.org/resources/trade-integration-within-asean-role-non-tariff-measures-cambodia-lao-peoples-democratic>

The Law on Copyright and Related Rights (Copyright Law) was enacted in 2003 to protect the rights of authors with regard to works and cultural products, performance, phonograms and the transmission of broadcasting organizations.

Geographical indication (GI) is a new development and legal concept for Cambodia. In 2014, the Government of Cambodia adopted the law on GI to protect Intellectual Property Right (IPRs) of local products and promote export of GI-certified products as a means to socio-economic development and improvement of the livelihoods of the people, local farmers in particular. With technical support from international development partners/agencies, in 2016 the European Union awarded a GI certificate to Kampot pepper. With this recognition and certification, Kampot pepper has become a global brand.

The Government of Cambodia recently began paying close attention to further promoting Kampot pepper. Cambodia is in the process of learning from the experiences of GI registration, collaboration among the various stakeholders, and a market analysis of the supply chains of Kampot pepper. Based on these observations, Cambodia is studying the possibility of registering other agricultural products and agri-food products in the GI list. However, no study has been carried out on the impacts of GI on socio-economic development in Cambodia. Therefore, this research report is aimed at: (a) shedding light on the relationships between GI and socio-economic development; (b) examining the case of Kampot pepper; (c) exploring the lessons learnt from Kampot pepper production and the implications for other products; and (d) providing policy recommendations on how to gain further benefits from GI.

This study employs a qualitative data collection and analysis method combining secondary data from content analysis with primary data from interviews of relevant stakeholders and site visit observations. Fieldwork was carried out from 25 November to 13 December 2016 at five villages in Kampot province. The researchers interviewed 23 pepper producers and five key stakeholders, including the Ministry of Commerce (MoC), Ministry of Agriculture, Forestry and Fisheries (MAFF), the Kampot Pepper Promotion Association (KPPA), and the Cambodia Institute for Research and Rural Development (CIRD), which is a non-governmental organization.

The findings of this study are in line with the literature, which support the hypothesis that GI contributes positively to socio-economic development in rural Cambodia. The GI status of Kampot pepper has provided economic benefits by increasing the value of pepper as well as boosting local and export demand, resulting in higher turnover by the producers. The social benefits of GI come in

form of improving people's livelihood and the creation of employment for local people, as a result of the expansion of farmland and increased production. GI has also brought about environmental gains through the promotion of sustainable agriculture practices.

To effectively promote and implement GI, Cambodia needs to further strengthen collaboration and partnerships among various stakeholders, i.e., the national and local Government, private corporations, local producers and processors, local associations or social networks, and international development agencies. Cambodia needs to develop a national strategy on GI by linking it with the national development plan, trade facilitation and rural development. The core issue for Cambodia in developing GI is institutional capacity-building, manpower development and research on GI.

### **A. Research questions**

Using Kampot pepper as a case study, this research attempts to address the following questions:

- (a) What was the process as well as the constraints in getting Protected Geographical Indication (PGI) for Kampot pepper?
- (b) What impact has PGI of Kampot pepper had on socio-economic development in Cambodia?
- (c) What are the capacity gaps in implementing and supporting GI?

### **B. Data and methodology**

This study employs qualitative data collection and analysis method combining secondary data from content analysis with primary data from interviews with relevant stakeholders and field visits. Fieldwork, which was carried out from 25 November to 13 December 2016 in five villages in Kampot province of Cambodia (table 1), included visits to the pepper plantations, during which observation notes were taken. A digital camera was used during the visits. In total, 23 pepper producers and five stakeholders were interviewed, including the MoC, MAFF, KPPA and CIRDA.

**Table 1. Number of interviews, by village**

<b>Village name</b>	<b>Number of interviews</b>	<b>Interview date</b>
Trapaing Chrey	7	25 November 2016
Angkor Chey 1	5	26 November 2016
Chamkar Chek	4	13 December 2016
Chamkar Bey	4	13 December 2016
Angkrong	3	13 December 2016

The data collected from the main sources described in table 1 were analysed qualitatively. The recorded data and handwritten field notes from the interviews and observations were transcribed by a team hired for this purpose, and the finished product was reviewed by the data collectors to ensure its accuracy. The lead researcher then closely reviewed the data by listening to the tapes, reading the transcriptions and studying the observational notes in order to gain an overview of the detail, depth and diversity of the materials gathered as well as make notes of key ideas and recurrent themes. The outcome of the analysis is detailed in this report with examples, quotes and a visual display.

### **C. Literature review**

GI refers to a name or sign used to identify certain products that correspond to a specific geographical location of origin. Trademarks and GIs are independent categories of distinctive signs and are subject to domestic and multilateral agreements, regulations, and administrative procedures (Monteverde, 2012). While copyright and patents aim to reward investments in innovation, GIs reward producers who invest in creating the value, reputation and brand of a product. GIs are more location-oriented and community-based. GIs are based on collective knowledge, tradition and a collective decision-making process (Singhal, 2008). GI is regarded as an important symbol of intellectual property because it is based on the fact that the quality or characteristics of a good, particularly an agricultural product, is closely related to the geographical attributes of the production location. Such attributes include climate, soil and unique methods of cultivation or production (Suh and MacPherson, 2007).

## 1. Enabling factors and actors

Several factors need to be taken into consideration in promoting GI, depending on the context-specific institutional environment, the degree of involvement of the supply chain actors, local knowledge, and the leadership and institutional capacity of the local associations/social networks. The registration for GIs requires collective actions and collaboration among several actors, including local producers and processors, local and national Governments, the local associations and social networks, and other stakeholders. The State plays a critical role in designing and implementing the legal framework, and providing technical assistance to stakeholders in the registration process (Quinones-Ruiz and others, 2016).

Three critical criteria that need to be considered in judging whether to grant GI were proposed by Suh and MacPherson (2007). First, the quality of the product must be well-known. Applicants must submit documentary evidence that verifies the fame of the product. Second, the product of a specific region must be differentiated from similar products of other regions; product differentiation needs objective data on the components of the product. Third, the quality, reputation or other characteristics of the product must originate from the geographical and human factors of the region.

A concerted effort by the Government, research institutions, the private sector, and international development agencies (for the case of developing countries) is needed in promoting the development of GI. The findings of case studies in Indonesia and Viet Nam showed that the national and local Governments are active and supportive at all stages of GI development, from the selection of the candidate products for GI registration, to the supervision and enforcement of GI implementation. State intervention in GI development is essential in those countries (Durand and Fournier, 2015).

Within the context of weak State institutions, international development agencies need to play a role in aspects such as analysing the supply chains and providing technical support to the local producers or farmers in applying for GIs (Chabrol and others, 2015) as well as to social networks (the expert system network and mobilization network, in the case of Brazil). In addition, local associations, including research networks and institutions, help to provide expertise and market information to the local producers, and promote better coherence in terms of strategies and policies concerning GIs (Wilkinson and others, 2015). How can the potential benefits deriving from GI be harnessed? The institutions concerned play a key role in assisting local producers to benefit fairly from

maintaining a GI. In addition, local producers need to pay the costs incurred in maintaining GI, marketing costs, and production costs involved in ensuring the continuing existence of the quality attributes of the products. A set of formal and/or informal rules also play a crucial role in realising the potential benefits of GI (Jena and Grote, 2010). Bowen (2010) argued that “the degree to which GI protection spurs development, and protects local environmental and cultural resources, depends on the structure of the GI legislation and on the territorial context in which protection is embedded”.

State interventions are important in GI development, including the institutional embodiment of GI products as both a public quality standard and as an IPR, trade facilitation, institutional support, and international harmonization (Bienabe and Marie-Vivien, 2015). Technical and financial support from the Government might be needed to assist local producers to reduce and mitigate costs and ensure they enjoy the net benefits of GIs. The Government needs to undertake a monitoring and enforcement role in cooperation with other stakeholders to protect GIs under the framework of intellectual property rights. According to Grote (2009), “concerted action is needed to ensure that GI registration results in price premia. Not every GI product will be successfully marketed as such, but registration might confer opportunity”.

Well-organized producer associations and the support of the local Government are critical factors in the GI registration process. Participation and knowledge-sharing drive collective leadership in developing common strategies and innovative initiatives beyond just GI registration (Quinones-Ruiz and others, 2016). GI registration alone does not suffice to improve the quality of the origin-products and promote rural development. The stakeholders, particularly national and local Governments, need to develop a holistic rural development policy in which GI is a core element (Zhao and others, 2014). Marketing strategy needs to be developed to promote awareness of the GI products, build the image, genuinely protect the quality and trademarks of the products, and build a common identity of the products (Aggarwal and others, 2014).

Learning from the case study of a Gemlik olive, the control system or mechanism for GI should be developed in countries where there are no common logo and control/tracking systems to help GI holders manage the process. The control system includes identification of product amount and the number of producers, preparation of software program to monitor the system and distribute labels, preparation of labels (containing the logo of the GI product, integrated with a barcode or quick-response code), distribution of labels to traders/producers, and promotional activities (Dokuzlu, 2016).

To improve the effectiveness and sustainability of GIs, the Government, the private sector, social networks, and international development agencies need to work together to develop a comprehensive framework with clear strategy to link GIs with socio-economic development, knowledge preservation, environmental protection, marketing strategy, and supply chain management (table 2). According to Bowen and Zapata (2009), there is also a need to specify sustainable production practices within the legal framework of GIs, and to strengthen “the link between the biophysical properties of particular places, the traditional practices and culture that have evolved in these places, and the specific tastes and flavours of the foods produced there”.

**Table 2. Enabling actors**

Actors	Functions
National Government	<ul style="list-style-type: none"> <li>• Developing GI strategy, for example, by linking with the national development plan and trade promotion policy.</li> <li>• Designing and implementing a legal framework.</li> <li>• Providing legal and technical support to facilitate GI registration.</li> </ul>
Local Government	<ul style="list-style-type: none"> <li>• Working with the national Government to facilitate GI registration.</li> <li>• Informing local producers/farmers about GI policy and regulations.</li> <li>• Providing legal support to the local producers or farmers on GI.</li> </ul>
Private sector	<ul style="list-style-type: none"> <li>• Promoting innovation and entrepreneurship.</li> <li>• Developing a comprehensive marketing strategy.</li> <li>• Analysing the market and supply chains.</li> </ul>
Local Associations/ social networks	<ul style="list-style-type: none"> <li>• Promoting the collective decision-making process and actions.</li> <li>• Promoting knowledge sharing.</li> <li>• Ensuring the originality and quality of the GI products.</li> </ul>
International development agencies	<ul style="list-style-type: none"> <li>• Helping to analyse supply chains</li> <li>• Providing technical support to the local producers/farmers and associations.</li> <li>• Building the institutional capacity of national and local Government.</li> </ul>

## 2. Socio-economic impacts

GI is an important element of international trade, an instrument for institutionalizing a collective reputation in protecting the consumer through addressing information asymmetries and quality and the producer through protecting reputation as an asset (OECD, 2000), supporting public goods and sustainable development (Belletti and others, 2015), promoting local socio-economic development, preserving local knowledge and traditions, and creating community identity (Ferrari, 2014). GI reduces the asymmetry of information between the producers and consumers, offers marketing advantage and competitiveness to the country that has unique products from a specific location embedded with local geographical landscape, heritage and local ways of production, particularly in the case of agricultural products. A place-related brand name presents the quality and characteristics of a product.

A GI can have a significant impact on a region's economic performance and cultural heritage preservation, as it protects the identity of indigenous products. Developing countries have economic advantages in promoting the protection of GI, as they are increasingly being viewed as helpful tools for achieving product differentiation as well as increasing economic efficiency as producers have incentives to deliver an appropriate supply to the market. A GI promotes the image and brand of a product, stimulates the production of local products, and acts as an effective policy tool for mitigating or neutralizing the adverse impact of trade liberalization (Suh and MacPherson, 2007).

The institutionalization of the reputation, identity and quality of local products adds value to the origin-labelled supply chains, and develops a competitive advantage around the product's specificity. Contextualization of the understanding of the relationship between GI and regional development through the case study approach is needed to better understand the opportunities, challenges and impacts of GI on local community development. The collective body of empirical evidence that the impact of GI is critical in formulating a right development policy for a developing country (Bramley and others, 2009).

There is evidence proving the positive impacts of GI on socio-economic development through the branding of local products, market access, rural development and the improvement of the living standards of local residents (Dogan and Gokovali, 2012). Geographical Indications also contribute to the preservation of indigenous knowledge (Blakeney, 2009) and unique traditional knowledge-based agricultural products (Dagne, 2010). Agricultural products contribute a considerable number of GI, particularly in developing countries. The production and marketing of agri-food products have become more

challenging within the context of increased competition and decreasing market prices of commodity products as well as in changing consumer preferences. However, the impacts of GI on socio-economic development are context-specific. Therefore, it is necessary to examine the impacts of GI in different contexts. Developing countries face a host of issues associated with GI, such as the actual distribution of benefits along the supply chain, effective marketing, maintaining quality standards, the ability of the collective rights holders or producers to monitor and enforce their intellectual property rights, the costs associated with GI, and the lack of public policy and institutional support (Bramley, 2011).

GI contributes to community-based agriculture development and sustainable rural development; however, it depends on “the socio-political environment and whether they are relevant for the producers involved, affordable in terms of administrative and management costs, and applicable on different scales of production” (Parasecoli and Tasaki, 2011). A comprehensive GI policy is needed, extending from intellectual property regulation to agricultural market policy, social policy to food safety regulation, and natural local resources preservation to food culture and tourism promotion. Institutions are needed to coordinate policy at different levels (Belletti and others, 2015). In addition, the improvement of logistics and transportation services, access to information, and membership of a cooperative have impacts on the adoption of, and active participation by local households in GI development (Ngokkuen and Grote, 2011).

### **3. Development of GI in Cambodia**

GIs have gained attention from the Government and producers alike since 2010. Then, in January 2014, the Government adopted the Law on Geographical Indications of Goods (GI Law) to exploit the benefits from GI and protect the intellectual IPRs of producers, operators and consumers by marking goods/products with a GI as well as to preserve and strengthen traditional know-how and national identity, and create an overall reduction of poverty. The GI office was established under the Intellectual Property Rights Department of the MoC. The Cambodia’s Law defines GI as a name, symbol or sign used to represent a geographical origin and identity of a specific product. The product needs to have quality, reputation and other characteristics attributed to the geographic origin. Application for registration of a GI must be made by a GI association that comprises interested parties, including producer groups, operators and institutions, in a certain geographical area and in relation to a specific type of good. Each association must file a “statute” with the MoC and receive acknowledgement from the competent authorities.

As part of the application, the association must produce a “book of specifications”, which sets out the criteria that must be met for a product to use the GI. These specifications must include, among other things, the exact details to be determined by the association, the geographical area of production, and any production conditions and quality control processes that the good/product must satisfy. Upon registration, the association will own the rights to use the GI. However, unlike the owner of a trademark, the ownership of rights to use a GI does not confer property ownership.

The GI Law also provides for the registration of foreign goods, although for local registration the foreign goods must previously have been registered as a GI in accordance with the regulations of the country of origin. The procedure for registration, or petition and objection to foreign GIs, will then be the same as that for local GIs. So long as the application complies with the required formalities and the specifications the association sets out in its book of specifications, there are few restrictions on what may be registered as a GI.

Upon registration, the MoC will issue the applicant with a certificate of registration, and as the member of a producers’ association the recipient can use the GI certificate. In addition, the owner of the GI has the right to file a complaint with the competent court against any person who:

- (a) Directly or indirectly, and for commercial purposes, uses the GI on goods that are the same as, or comparable to, the goods for which the GI was registered, such that the use infringes on, and unfairly benefits from the reputation conferred by the GI;
- (b) Uses, imitates, recalls or translates the GI of goods so as to cause confusion among the general public, notwithstanding such use/translation on goods is accompanied by the terms “style”, “specific”, “type”, “methodology”, “method”, “imitation” or similar wording (or translations thereof);
- (c) Falsifies or causes confusion as to the origin, type or special quality of goods on packaging or advertising materials (or other documents) in connection to the goods; and/or
- (d) Carries out any other act that may cause confusion among the public as to the actual origin of goods.

The penalty for individuals committing any of these infringing acts is one to five years’ imprisonment together with a fine of between KHR (Cambodian riels) 2,000,000-KHR 20,000,000 (approximately \$500-\$5,000). The penalty for legal entities committing any infringement of the GI Law includes, among others, a

fine of between KHR 20,000,000-KHR 50,000,000 (approximately \$5,000-\$12,500), dissolution of the legal entity, expulsion from public procurement and confiscation of property.

The MoC publishes the registration of a GI in an official bulletin in order to allow interested parties to file an objection to such registration within 90 days from the publication date. If no objection is filed within this time, the registration of the GI is valid from the date the MoC accepted the application form, and lasts for 10 years.

Since 2010, only two products have been registered in GIs, i.e., Kampot pepper and Kampong Speu palm sugar. In April 2016, the European Union awarded GI protection to 'Kampot pepper', making it the first Cambodian product to benefit from the status of Protected GI. There are a number of other local products to be considered for GI registration, including Kirivong pepper, Ratanakiri coffee, Siem Reap Sachkrock, Battambang rice and Battambang oranges (Ministry of Commerce of Cambodia).

## **D. Research findings**

### **1. GI registration process for Kampot pepper**

In February 2016, Kampot pepper became the first Cambodian product to win the European Union's Protected Geographical Indication, joining an exclusive club of gourmet favourites including champagne, Cornish pasties, Gorgonzola cheese and Darjeeling tea. In 2010, Cambodia's MoC took the first step towards protecting Kampot pepper by giving it a domestically issued geographical indication status. The Government then applied to the European Union in 2014 to expand the status to the European bloc.

The process of gaining GI for Cambodia's products started in 2007 when Cambodia received financial support from Agence Française de Développement to develop a GI law and implement the two pilot GI products, Kampot pepper and Kampong Speu palm sugar. A working committee was then jointly created by the MoC and MAFF to develop a legal framework for launching a pilot operation for the two products. A Geographical Indication Office was created within the MoC's Intellectual Property Department on 18 August 2007.

According to an interview with Mr. Loa Reasey, Chief of the Geographical Indications Office, to qualify for a GI a product must meet the following criteria:

- A GI organization, which is generally an inter-professional association that brings together producers, operators and traders of the product;
- A book of specifications that describes the goods and the production methods;
- A delimitation of the production area;
- A control and traceability system guaranteeing that all the goods sold under the GI name have been produced within the delimited area and according to the book of specifications;
- A proven link between the specificity of the good and its origin, based on natural, geographical, historical or human factors.

## **2. GI organization**

In the case of Kampot pepper, KPPA was established in 2008 as a GI organization to promote the producers' know-how as well as the name and quality reputation of Kampot pepper. KPPA's by-law was approved during its first general assembly on 3 October 2008 and the organization was formally registered at the Ministry of Interior (Mol) on 28 December in the same year. Mr. Nguon Lay, President of KPPA, told the authors during an interview that the setting up of KPPA was slow and faced challenges at the beginning, due to the lack of understanding of GI and the benefits that GI can generate, and what benefits would be negated by KPPA; as a result, the local stakeholders were not convinced to join. "It took us a while to raise awareness and explain to farmers about GI and KPPA. It was difficult for us to mobilize support at the early stage, but as people came to understand the objectives of the organization, they became more interested. Now KPPA has 342 members, of whom 18 are traders." Mr. Lay said. (See annex 1 for more detail information about KPPA).

## **3. Book of specifications**

With the support of CIRD and GRET, a French international development NGO, KPPA drafted a book of specifications for Kampot pepper, which defines the production zone, explains how it affects product quality, and describes the GI products' production methods and the specificities that distinguish them from generic production.

According to interviews with experts, the specificity of Kampot pepper lies in its strong (but not "burning") pungency as well as the fact that it is not aggressive, developing progressively in the mouth. In addition, its aromatic intensity gives Kampot pepper its particular quality.

There are four types of Kampot pepper, depending on the time of harvesting and the processing they receive afterwards (figure 1):

- Green pepper is the unripe fruit of the pepper plant, harvested when still young on the plant. It can be marketed and consumed either fresh (presented in clusters) or in brine or vinegar (presented either in full berries or clusters). This variety has a fresh citrus flavour and is less spicy than the dried varieties;
- Black pepper is harvested when the berries start to turn from green to yellow. They are afterwards dried. It can be presented as full berries or ground fruit. It has a deeper, stronger and vaguely floral flavour, with hints of flower, eucalyptus and mint. It can range from mildly sweet to intensely spicy;
- Red pepper is the dried product of fully-ripe berries. Presented as full berries, it is sweeter and less spicy than the black variety. However, its flavour is more rounded and it delivers a powerful fruity aroma;
- White pepper is produced from red or ripe berries and by a subsequent process of soaking. The outer skin of the fruit is removed after the process of soaking; this gives the product a different taste that carries notes of fresh grass and lime.

**Figure 1. Types of pepper**



*Green pepper*

*Black pepper*

*Red pepper*

*White pepper*

There are two known varieties of the plants used by the farmers in Kampot, Kamchay and Lampong, known locally as “big leaves” and “small leaves”. Only these two types qualify for PGI, according to the book of specifications.

Pepper vines are planted on wooden poles. A space of at least 1.80 metres must separate the vines, with a visible location for the input of natural fertilizers (manure) and new soil. To protect the young plants from the sun a shelter must be built and maintained on the plantation until the plants are at least three years old.

Fertilization is applied throughout the year by the addition of new soil called “virgin soil” and the application of cow dung and bat dung (guano). Some farmers also produce fertilizers from rice field crabs, cow bone and prawn skin. The GI book of specifications forbids the use of chemical fertilizers.

Irrigation is crucial to pepper cultivation. If rainfall is plentiful during the monsoon season, irrigation is only necessary during dry season when a vine needs 15 litres of water every three days. Most of the plantations in Kampot are irrigated manually, using water from nearby ponds.

To fight the various pests that infest pepper, producers should use natural pesticides. In cases of inefficient natural means of pest control, pepper producers are permitted to use chemical insecticides, but only those in Class II and III (blue and green in colour), as classified by the World Health Organization (WHO). Many farmers in Kampot now produce natural pesticides (repulsive) from local plants, based on knowledge passed down by their ancestors.

#### **4. Delimitation of the production area**

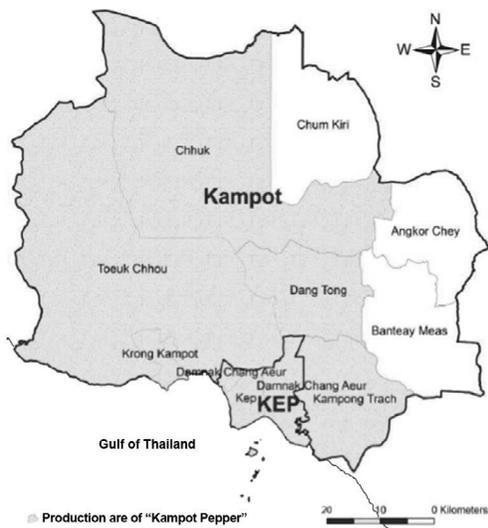
The geographical area for the production of Kampot pepper comprises the following districts located in southern Cambodia:

- Kampong Trach, Dan Tong, Toeuk Chhou, Chhouk and Kampot City, all of which are located in Kampot province;
- Kep City and Damnak Chang Aeur in Kep province

These two provinces have a climate that includes heavy and regular rainfall, and a wet season that lasts longer than the dry season. Therefore, not only is the average rainfall high in the provinces (higher than 2,000 mm annually) but it is also well distributed throughout the year, which is ideal for producing good quality pepper, specifically with regard to its aroma and its balanced pungency.

Within these defined areas, only land plots with good drainage capacities qualify for planting Kampot pepper. To assure good drainage capacity, the plantations are located on hillocks or along the base of mountains, with lateritic rocky or sandy soil. Other locations, such as foothills or plateaux can also be used for pepper plantations as long as they have good drainage capacity through natural declivity. In these land plots water drainage is carried out by means of a canal that is at least 0.8 metres deep.

**Figure 2. Kampot pepper production areas**



## 5. Control and traceability system

To be permitted to produce and market Kampot pepper, the producers must register with, and be accredited by KPPA. Declaration of the volume produced is required from all producers, as well as the registration of all transactions. A traceability system has been developed that allows the identification of Kampot pepper, from production until placed on the market.

To ensure that the final product originates from the defined geographical area and complies with all the specified requirements, three levels of control are conducted. First, control by the producers themselves of their own production. This consists essentially of ensuring that they are in compliance with the specifications and have recorded the specific set of information, notably production and sales data. Second, internal control by KPPA is maintained to verify compliance by all producers with the specifications. KPPA inspectors have been trained by an external certification body. Finally, external control is implemented by the independent certification body, ECOCERT S.A. accredited according to the ISO 65 standard.

KPPA organizes frequent visits to the producers' plantation and the trading companies, without notice in advance, to check compliance of the production system (storage, post-harvest, packaging etc.) with the specifications.

Control of product samples is conducted at either the producer level or the trading level to check compliance with the specifications. Before the transportation of 200 kg or more of Kampot pepper outside the production area, the producer must inform KPPA. The product is transported not earlier than 72 hours after KPPA receives the official notification, so to leave time for the origin of the pepper to be verified. This is done by taking samples from a producer or trader for analysis of the product characteristics.

## **6. Proven link between product specificity and its origin**

Pepper in Cambodia has a long history, dating back even before the period of the kings of Angkor. The production of Kampot pepper was recorded by a Chinese explorer, Zhou Daguan, as early as the thirteenth century. However, it was not until the arrival of the French colonists at the end of the nineteenth century that Kampot province witnessed real “pepper fever”. At the beginning of the following century production of this spice in Kampot intensified, reaching as much as 8,000 tons per year. In the middle of the twentieth century, Kampot pepper reached a pinnacle. Production, which stabilized at around 3,000 tons per year, was already of exceptional quality. By that time, the name of Kampot had become strongly associated with pepper, and the product was well known widely, especially in France and the rest of Europe. Kampot pepper became highly appreciated for its quality, particularly among the chef community in France and Europe.

In 1975, the Khmer Rouge took over the country and put in place a regime of terror that ruled the country for the next five years. Land and people were monopolized in order to grow rice almost exclusively. During that period, 2 million Cambodians disappeared, the infrastructure was destroyed, and the intellectual elite systematically eliminated. Since the 1998 elections, the country has enjoyed relative calm but everything needed to be rebuilt. The five years of terror and the 30 years of civil war that followed put a stop to pepper production in Kampot. Pepper farms vanished almost completely and only a few poles remained out of the million still in place in the 1960s.

At the end of the twentieth century, producers’ families returned to their ancestral land. Coming from several generations of pepper producers, they naturally cleared the land left abandoned and started cultivating their favourite spice again.

## **7. Impact of GI on Cambodia’s local area development**

Protection by GI has proven to be an efficient tool for local development, as it

increases value-added and protects producers from competition created by generic products through the isolation of niche markets. Therefore, GI helps to protect jobs in rural areas through direct price increases of products as well as indirect benefits such as the development of tourism in such areas. It is also a way of preserving cultural heritage and biodiversity.

In the case of Kampot pepper, getting GI status has yielded positive results as the literature has pointed out. On the economic front, GI status has increased production and export of Kampot pepper; compared with 2014, production doubled in 2015 to 70 tons, of which 70% was exported, mostly to the European Union, the United States and Japan. Production is expected to increase further to 500 tons in 2018.

The sale of Kampot pepper under the GI label resulted in a significantly higher producer sales price. In 2009 and at the start of the 2010 season, producers were already being paid \$4.5 per kg for black GI pepper, compared with US\$ 3 per kg for pepper purchased from the same producers by local sellers who did not showcase the GI. Today, black Kampot pepper is sold at \$15 per kg. The red and white types are now sold at \$28 and \$30, respectively (table 3). “After gaining GI status, the quality of the pepper, its storage and packaging all greatly improved, which has also helped to boost product status and sales price,” according to KPPA President, Mr. Ngoun Lay.

**Table 3. Farmgate prices of Kampot pepper (USD)**

Year	Black pepper	Red pepper	White pepper
2009	4.5	8	10
2010	5.75	10	12
2011	7	15	15
2012	8	15	15
2013	11	15	18
2014	11	18	20
2015	15	25	26
2016	15	28	30

Source: CIRAD, 2015, and interviews with stakeholders

The increase in demand and price has enabled producers to earn more income. The total turnover for Kampot pepper producers in 2015 was \$1 million compared with only \$61,500 in 2009 before GI.

**Table 4. Turnover by producers**

<b>Year</b>	<b>Black pepper</b>	<b>Red pepper</b>	<b>White pepper</b>	<b>Total</b>
<b>2009</b>				
Quantity (kg)	19 000	500	500	
Unit price (\$/kg)	3	3	6	
Producers' total turnover (\$)	57 000	1 500	3 000	61 500
<b>2015</b>				
Quantity (kg)	42 000	15 000	3 000	
Unit price (\$/kg)	15	25	26	
Producers' total turnover (\$)	630 000	375, 000	78 000	1 083 000

Source: CIRDA, 2015 and interviews with stakeholders.

The increase in income for producers has enabled them to improve their livelihood, increase the size of their plantations, expand production, encourage other farmers to grow Kampot pepper and create jobs for local people. Ms. Ma Raty, a 22-year-old pepper producer who grows around 2,500 pepper plants, said she previously grew mangoes; however, after the sharp rise in the price of pepper, she decided to convert 70% of her plantation to growing pepper. The number of producers increased from 120 in 2009 to 342 in 2016. Total land under pepper cultivation also increased from just 10 hectares to 184 hectares in the same period. KPPA president Mr. Lay said he was happy that Kampot pepper had been recognized by the European Union. “The GI status has increased our sales and helped to improve our farmers’ living standard,” he added.

“The development of GIs contributes to increasing the income of small farmers by developing value chains, improving market access and increasing the recognition of GI by consumers. The GI system provides answers for consumers who are looking for high quality, and traceable and traditional products,” according to Mr. Alexander Huynh, FAO Representative in Cambodia.

Mr. Sok Khem, a 63-year-old pepper producer in Kampot, told the researchers that his family income had doubled in 2016 due to the increase in pepper price. “Growing pepper has been my family’s business for a few generations now. The farm that I have now was left to me by my father. After listening to the news that Kampot pepper was getting more famous, I also have observed that the price of [Kampot] pepper had increased a lot in the past few years. Now my children and relatives are all growing pepper,” he said.

GI has not only provided Cambodia with economic benefits but also helped to promote Cambodia's cultural heritage and identify. Kampot pepper has a long and rich history. It has long been regarded by many chefs as one of the world's finest pepper strains. Mr. Am Phirum, Deputy Director, Agricultural Land Resources Management Department, Ministry of Agriculture, Forestry and Fisheries, told the authors that getting GI for Kampot pepper was a matter of national pride. "The [Kampot] pepper was already famous, but GI made it even more famous internationally," he noted. According to H.E. Mr. George Edgar, Ambassador of the European Union to Cambodia, GIs are considered by the European Union as part of a country's cultural heritage and its economic resources. "Clearly, Kampot pepper has been a success story, both with regard to the preservation of Cambodian heritage and as a much-needed source of income for Cambodia's farmers and traders," he said.

GI also promotes sustainable agricultural production, which in turn contributes to lowering the environmental footprint of Cambodian products. GI products are required to follow the stringent requirements stated in the book of specifications. In the case of Kampot pepper, producers are not allowed to use harmful chemical fertilizers or pesticide, which might affect the environment and people's health. "KPPA has a strict requirement. They told us not to use chemical fertilizers. This has been a challenge for us because making natural fertilizers is time-consuming while purchasing them is more expensive [than chemical fertilizers]. However, we always try our best to follow their advice," said Mr. Sok Khim, a Kampot pepper farmer in Trapaing Chrey village.

### **Case study 1**

Ms. Kanika is a 50-year-old Kampot pepper producer living in Angkrang village, West Kampong Trach district of Kep province. She owns 42 hectares of land, of which only 22 hectares are being used for growing 40,333 Kampot pepper plants. "I started growing pepper three years ago when I learnt that the sales of Kampot pepper was increasing due to its good reputation. I own the land but still needed to spend a great deal of money to start this business. However, there is no revenue yet, because the pepper is not ready for harvesting," she said.

On average, she spends around the equivalent of \$17,000 per month on labour, meals, wooden poles, water and fertilizer. She employs 70 people on her farm and pays each of them around \$120 per month plus

three free meals per day. She said most of her workers had gained better living conditions after they started working for her. Around 30% of the workers also have their own small pepper plantations. “They work on my farm to earn additional income, and since they live nearby it is convenient for them look after their own plantation after leaving work here,” she added.

She is a member of KPPA and has received training from the association on how to grow and maintain the pepper. “We have tried our best to follow what they [KPPA] teach us. For example, we don’t use chemical fertilizers or pesticides. We have to be careful because if our pepper does not meet their requirements, we cannot sell it.

Ms. Kanika knows very little about GI but she is optimistic that the price of, and demand for Kampot pepper will not go down. “I am trying to find new markets for my pepper and I hope that after harvesting, my efforts will pay off,” she said.

## **Case study 2**

Mr. Chhem Lem, aged 48, owns a small pepper plantation in Trapaing Chhrey village in Kep province. He started his plantation in 2008 with an initial capital of around \$2,000. He grows 270 pepper plants on his own land using his own labour.

He became a member of KPPA in 2015 and since then has received support from the association in the production and sale of his pepper. “The association organizes a meeting once a month to teach members how to grow and maintain pepper properly and in accordance with the required standards. They also share new information related to pepper demand and sales,” he explained.

In 2016 Mr. Lem harvested 100 kg of Kampot pepper, 70% of which he sold to traders in KPPA while the remaining 30% of not-so-good quality pepper was sold to other middlemen. He earned \$30 from selling 1kg of white pepper, \$28 for 1kg of the red type and \$15 for 1kg of the black type.

Like most of the farmers interviewed by the researchers, Mr. Lem does not understand what GI is. “I don’t know much about the demand, supply, marketing or [European] Union’s recognition. I have just observed the fact that the price of [Kampot] pepper has increased rapidly in the past few years,” he explained. “My neighbours and I have been able to increase our income, so we have extra money to support our families and expand our plantations,” he added.

## 8. Capacity-building needs

GI is a new concept for Cambodia, especially from a regulatory standpoint. The Cambodia GI law adopted in 2014 is aimed at managing, registering, recognizing and protecting GI. Understanding and enforcing the law, however, remains limited. Thus, further awareness-raising and capacity-building is critical to achieving long-term success in GI law implementation.

The GI Office was set up within the MoC’s Intellectual Property Department to handle the GI registration procedure. Since then, several training sessions have been organized for the office, including: courses provided by international experts covering the various phases of GI development; and the formulation of the book of specifications for design, delimitation, control plan elaboration etc. The executives from the GI Office and the engineers from MAFF who are working with the GI Office have also received training on the contribution of GI to rural development, and have participated in hands-on training courses organized in collaboration with the Institut National de l’Origine et de la Qualité, in France. Study visits to France and the sub-region have also been organized for the Office staff in order for them to learn more about the processes, status and supervision modalities for GIs in other countries of Europe and Asia.

Mr. Loa Reasey, Chief of the GI Office, recognized the need to build greater capacity of his staff. “GI is new for us, so I’m proud of what we have achieved so far. We have successfully registered Kampot pepper and Kompong Speu palm sugar, but as each GI case is different we need to learn more to prepare for other GI products,” he noted. Cambodia has around 22 products which can potentially qualify for Protected Geographical Indication. These include Battambang milled rice, Siem Reap prahok fish paste, Kratie grapefruit, Kampot salt, Kampot durians and Phnom Srok silk. “I’m excited about our journey ahead. There is great potential for our products to get PGI, which will promote the reputation of Cambodia internationally. My office will try its best to support the registration of these products,” Mr. Reasey added.

One area that needs urgent capacity-building support is enforcement of the GI law. Experience in other countries suggests that once GI of a particular product is successful, there is often an increase in the usurpation of that product name and even production of counterfeit goods. In the long term, such incidents can negatively affect a product's reputation if the quality of the goods sold under the name of the GI does not meet consumers' expectations of quality. According to Cambodia's GI law, offenders are liable to imprisonment from one to five years and a fine of KHR 2 million to KHR 20; however, enforcement of this regulation is challenging. Mr. Prak Sereyvath, Director of the Cambodia Institute for Research and Rural Development, explained that, "it is very difficult to monitor and control the production and sale of GI products throughout the country. We don't have the resources and capacity to enforce the GI law. We have already seen some people attempt to sell pepper under the GI name that does not come from the production zone or comply with the required specifications."

Finally, more public awareness on GI is greatly needed among pepper producers, the majority of whom do not know what GI is. Some do not fully understand the book of specifications or even the objectives of KPPA and the benefits that the association offers. "I don't understand much about this [GI]. I cannot read. It's hard for me. I am not sure how many rules are in the book. It's difficult to follow everything they [KPPA] told us but I have tried to follow what I can remember," said one farmer, who asked not to be named. "I didn't trust them [KPPA] 100%. I don't know how they work and I am not sure if they have their own interests, so that is why I hesitated to join at first," said another farmer who also asked to remain anonymous.

## **E. Discussion**

This study contributes to the limited literature on the impacts of GI on local development by providing empirical evidence using Cambodia's Kampot pepper as a case study. The findings of this study are in line with the literature, which support the hypothesis that GI contributes positively to socio-economic development in rural Cambodia. The GI status of Kampot pepper has provided economic benefits by increasing the value of this product as well as boosting local and export demand that has resulted in higher turnover for the producers. The social benefits of GI come in form of improving people's livelihood, and the creation of employment for the local population as a result of the expansion of farmland and increases in production. GI has also brought about environmental gains through the promotion of sustainable agriculture practices.

Kampot pepper has experienced impressive growth in both production and sales in the past few years, but its future sustainability depends on several factors. First, KPPA's capability to maintain quality in the context of the rapid expansion of production is critical. As discussed above, quality assurance needs close cooperation between the producers and KPPA. At the producer level, it is important that they understand and comply with the book of specifications. KPPA plays a central role in monitoring and evaluating compliance among producers. A clear set of procedures and rules must be put in place and comprehensive awareness-raising and capacity-building must be systematically carried out among producers. The KPPA staff must be well-trained in order for them to effectively enforce the rules. KPPA also needs to be financially sustainable to be able to operate effectively. Currently, KPPA charges producers \$0.25 per kilogram of pepper sold through the organization, which is an effective way of keeping the organization functional.

Another matter of concern is the risk of a reduction of price as a result of over-production. The interviews with producers suggest that this is one of their worries. As more and more farmers begin to grow pepper, the overall supply may surpass demand, driving the price down. It is important for KPPA to work with the Government to find markets for Kampot pepper domestically and internationally and to regulate the production in order to ensure that supply and demand are in equilibrium.

While Kampot pepper is a successful case, this does by no means suggest that any product registered as a GI will be automatically be successful. GI cannot turn a frog into a prince. It only provides recognition of, and protection for products that are historically well-known. Although there are many examples of origin-based products that are sustainably successful without official recognition and protection, official recognition and protection through GI can help to improve the marketing and profitability of such products. Kampot pepper has long been appreciated for its quality, yet GI has helped to make it famous internationally and thus has created a broader market for the product. Distinguishing the intrinsic potential of the product from the additional impact of the GI registration is beyond the scope of this research, but it is an interesting topic for further study.

Kampot pepper is the first-ever Cambodian product to receive GI. Thus, the success of the Kampot pepper offers useful lessons for other products to reap the full benefits of GI. Several policy recommendations for future GI development for other Cambodian products are listed below:

- Cambodia needs to further strengthen collaboration and partnerships among various stakeholders. Multi-stakeholder partnerships between the Government (both national and local), local producers and processors, international development agencies and relevant local community development agencies is critical to successful GI registration and implementation. The entire process of setting up KPPA and preparing the book of specifications for Kampot pepper benefited from close collaboration between producers and sellers, together with support from MoC and MAFF. This increased the confidence of all involved and made it possible to rapidly achieve the official registration of the product;
- For the GI approach to work, it is necessary for a quality product to be positioned in quality markets, so that consumers are willing to pay more. In addition, the intermediary economic actors who process and/or sell the product must be ready to apply this strategy. The price supplement gained from such markets for quality products must be used to cover (a) the production costs involved in obtaining a quality product according to GI product specifications; and (b) the cost of the internal and external controls under GI registration;
- A sustainable GI approach must ensure that a significant share of the value-added generated by GI goes to the producers located in a GI product's territory. In the case of Kampot pepper, the total turnover for producers was also doubled within just a few years;
- A systematic capacity-building programme as well as the promotion of public awareness are vital for the long-term success of GI. Each GI product is unique and requires new information and understanding. The GI Office needs to constantly update its knowledge of new products. The GI association needs to provide regular training for its members, particularly with regard to compliance with the book of specifications;
- Strong enforcement of the GI law is needed in order to protect the reputation of GI products. Eliminating counterfeit products and deterring offenders are crucial to maintaining the value of GI products and to meeting the expectation of the consumers;
- The long-term benefits of GI can be realized when GI policies are linked with trade facilitation and investment promotion measures, rural development strategies and national public quality standards.

## References

- Aggarwal, R., H. Singh and Prashar, S. (2014). "Branding of geographical indications in India: A paradigm to sustain its premium value". *International Journal of Law and Management*, vol. 56, No. 6; pp. 431-442.
- Belletti, G., A. Marescotti and J. Touzard (2015). "Geographical Indications, public goods, and sustainable development: The roles of actors' strategies and public policies". *World Development*. Available at <http://dx.doi.org/10.1016/j.worlddev.2015.05.004>.
- Bienabe, E. and D. Marie-Vivien (2015). "Institutionalizing Geographical Indications in southern countries: Lessons learned from Basmati and Rooibos". *World Development*. Available at <http://dx.doi.org/10.1016/j.worlddev.2015.05.004>.
- Blakeney, M. (2009). Protection of traditional knowledge by Geographical Indications. *International Journal of Intellectual Property Management*, vol. 3, No. 4; pp. 357-374.
- Bowen, S. and A. Z. Zapata (2009). "Geographical Indications, *terroir*, and socio-economic and ecological sustainability: The case of tequila". *Journal of Rural Studies*, vol. 25, No. 1; 108-119.
- Bowen, S. (2010). Embedding local places in global spaces: Geographical Indications as territorial development strategy. *Rural Sociology*, vol. 75, No. 2; pp. 209-243.
- Bramley, C., E. Bienabe. And J. Kirsten (2009). "The economics of Geographical Indicators: Towards a conceptual framework for Geographical Indication research in developing countries". World Intellectual Property Organization (ed.), *Economics of Intellectual Property*, pp. 109-149.
- Bramley, C. (2011). "A review of the socio-economic impact of Geographical Indications: Considerations for the developing world", paper prepared for the WIPO Worldwide Symposium on Geographical Indications, 22-24 June 2011, Lima, Peru.
- Chabrol, D., M. Mariani and D. Sautier (2015). Establishing Geographical Indications without State involvement? Learning from case studies in Central and West Africa. *World Development*. Available at <http://dx.doi.org/10.1016/j.worlddev.2015.11.023>.

- Dagne, T. W. (2010). "Harnessing the development potential of geographical indications for traditional knowledge-based agricultural products". *Journal of Intellectual Property Law and Practice*, vol. 5, No. 6; pp. 441-456.
- Dagon, B. and U. Gokovali (2012). "Geographical Indications: The aspects of rural development and marketing through the traditional products". *Procedia-Social and Behavioral Sciences*, vol. 62, pp. 761-765.
- Dokuzlu, S. (2015). "Geographical indications, implementation and traceability: Gemlik table olives". *British Food Journal*, vol. 118, No. 9; pp. 2074-2085.
- Durad, C. and S. Fournier (2015). "Can Geographical Indications modernize Indonesian and Vietnamese agriculture? Analyzing the role of national and local Governments and producers' strategies". *World Development* Available at <http://dx.doi.org/10.1016/j.worlddev.2015.11.022>.
- Ferrari, M. (2014). "The narratives of Geographical Indications". *International Journal of Law in Context*, vol. 10, No. 2; pp. 222-248.
- Grote, U. (2009). "Environmental labeling, protected Geographical Indications and the interests of developing countries". *Estey Center Journal of International Law and Trade Policy*, vol. 10, No. 1; pp. 94-110.
- Jena, P. and U. Grote (2010). "Changing institutions to protect regional heritage: A case for Geographical Indications in the Indian agrifood sector". *Development Policy Review*, vol. 28, No. 2; pp. 217-236.
- Monteverde, P. (2012). "Enforcement of Geographical Indications". *Journal of Intellectual Property Law and Practice*, vol. 7, No. 4; pp. 291-297.
- Ngokkuen, C. U. and Grote (2011). "The prediction of household's behavior in adopting Geographical Identification certification for jasmine rice from northeastern Thailand". *International Journal on GSTF Business Review*, vol. 1, No. 1; pp.173-178.
- OECD (2000). "Appellations of origin and geographical indications in OECD Member countries: Economic and legal implications". Working Party on Agricultural Policies and Markets of the Committee for Agriculture Joint Working Party of the Committee for Agriculture and the Trade Committee.
- Paraseco, F. and A. Tasaki (2011). "Shared meals and food fights, Geographical Indications, rural development and the environment". *Environment and Society: Advances in Research*, vol. 2, No. 1; pp. 106-123.

- Quinones-Ruiz, X. F., M. Penker, G. Belletti, A. Marescotti, S. Scaramuzzi, E. Barzini, M. Pircher, F. Leitgeb and L. F. Samper-Garner (2016). "Insights into the black box of collective efforts for the registration of Geographical Indications". *Land Use Policy*, vol. 57; pp. 103-116.
- Singhal, S. (2008). "Geographical Indications and Traditional knowledge". *Journal of Intellectual Property and Practice*, vol. 3, No. 11; pp. 732-738.
- Suh, J. and A. MacPherson (2007). "The impact of Geographical Indication on the revitalization of a regional economy: A case study of 'Boseong' green tea". *Area*, vol. 39, No.4; pp. 518-527.
- Zhao, X., D. Finlay and M. Kneafsey (2014). "The effectiveness of contemporary Geographical Indications (GIs) schemes in enhancing the quality of Chinese agrifoods – experiences from the field". *Journal of Rural Studies*, vol. 36, pp. 77-86.
- Wilkinson, J., C. Cerdan and C. Dorigon (2015). "Geographical Indications and 'Origi' products in Brazil – the interplay of institutions and networks". *World Development*. Available at <http://dx.doi.org/10.1016/j.worlddev.2015.05.003>.

