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교육학석사 학위논문

# Global Production Networks and Regional Development

– A case study of the cinnamon industry in  
Karandeniya and Matale, Sri Lanka –

글로벌 생산 네트워크와 지역 발전

: 스리랑카 카란데니아 및 마탈레지역의 시나몬 산업을

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# Global Production Networks and Regional Development

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# **Abstract**

This research analyzes the case of the cinnamon industry in the Karadeniya and Matale regions of Sri Lanka deploying a Global Production Networks (GPN) framework inclusive of regional development considerations.

The thesis begins with a presentation of theoretical background related to GPNs and some limitations related to the perspective in the existing economic geographical literature, namely an emphasis on downstream manufacturing activity in more developed countries, and a regional scale, economic growth oriented view of development. The argument presented is that analyses of upstream activity in agricultural regions in the global South deploying a distributional view of regional development may help to overcome these limitations. The third chapter, provides background information related to the research topic, including multi-spatial information about the cinnamon industry (global, national, and regional), as a well as regional background on the target regions for the case study, Karadeniya and Matale. The fourth chapter explores the cinnamon industries in the Karadeniya and Matale region vis-à-vis the GPN framework and regional development considerations. This unpacks the local environment, actor interaction, and resulting structural outcomes. Further, it unearths evidence of spatial switching in the cinnamon industry and its influence on both local actors and regional development.

Field observation found four prime actors in the cinnamon industry, namely farmers, peelers, collectors and exporting firms. While the farmers and peelers *create* most to the value, collectors and exporting firms, actors in the minority, *capture* the most value. In the past, in both Karadeniya and Matale, the value created in the region leaked to another region because the exporters were located in Colombo. However, there were a series of cases of strategic decoupling with the exporting firms in Colombo and subsequent strategic recoupling with other actors. According to the existing view of regional development in the GPN literature, one based on economic growth measured at the regional scale, Karadeniya represents a typical successful case. However, the extent of value *distribution* within the region is different from that experienced in Matale, which is more equitable. This raises a pertinent question about the view of regional development as growth. Therefore, more in line with the distributional view, this thesis argues for ‘regional development as well-being’, and a consideration of value distribution and equity for all actors within a given (agricultural) region resulting from strategic decoupling and recoupling.

**Keyword: Cinnamon Industry; Global Production Networks; Karadeniya; Matale; Regional Development; Sri Lanka; Strategic Coupling**

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# I. Introduction

## 1. Research Relevance and Purpose

This research starts with the pretext that economic geographical debates have largely failed to capture the contemporary dynamics of economies in the global South. In 2010, Zoellick (2010) declared, “The End of the third world.” The primary reason for this is that many countries previously classified as third world and impoverished have not only been experiencing economic growth and engaging in increasing amounts of internationally linked economic activity, but also at different speeds, thus leading to a new order. For example, countries such as China and India have emerged as new economic leaders (UNDP, 2013; Horner, 2016; Zoellick, 2010). Thus, analyzing economies in the global South with an *a priori* focus on poverty and aid alone, particularly if these are sweeping generalizations, is no longer considered valid (Williams et al., 2014). Accordingly, there is a need to focus on individual countries and regions, especially those that have remained more marginalized in contemporary research streams.

Still, economic geographical debates have largely remained western centric, or focus only on some successful emerging economies, for example those in East Asia (Yeung and Lin, 2002; Potter, 2001; Murphy, 2008). Even in research dealing with the global South, countries have until relatively

recently been described as poor, passive, and dependent on external aid (Willis et al., 2014).

Studies of agricultural areas in the global South are no exception. Even though agriculture is crucial to numerous economies in the global South in terms of economic opportunity and development, and the majority of people in the global South earn their living through agriculture (FAO, 2018; Mitchell et al., 2011), the study of agricultural regions has been comparatively neglected in the mainstream economic geographical literature. Even in studies of agricultural regions, the focus predominately remains on poverty and passive dependence on external aid. However, economic realities in these places suggest otherwise. There are multiple actors – individual, firm, and extra-firm, active in and across multiple scales and places, with divergent motivations and opportunities exercising autonomy and agency in complex agricultural systems in countries in the global South.

The purpose of this research is to capture the dynamics of an agricultural industry in the global South by analyzing the case of the cinnamon industry in the Karadeniya and Matale regions of Sri Lanka, deploying a Global Production Networks (GPN) framework inclusive of regional development considerations. GPNs are defined as, “...the globally organized nexus of interconnected functions and operations by firms and non-firm institutions through which goods and services are produced and distributed” (Coe et al., 2002, p. 471). The GPN framework therefore

provides useful tools for analyzing the Sri Lankan cinnamon industry because it places an emphasis on the analyses of multiple actors, their relationships, their participation in economic activity in and across space, and their corresponding impact on regional development. Regional development, in turn, is contextualized as, "...dynamic outcomes of the complex interaction between territorialized relational networks and local production networks within the context of changing regional governance structure" (Coe et al., 2004, 460).

All actors are embedded in specific territorial spaces. Therefore, the environment in which they are embedded influences their decisions and actions, and the sum of their behavior and interactions affects the region's development trajectories, namely growth or decline (Coe et al., 2008; Lee, 2006). In the present research effort, the local environment, actor interactions and resulting structural outcomes are unpacked via the deployment of concepts core to GPN theorization, such as strategic coupling, decoupling, and recoupling; value creation, value enhancement and value capture; and power and embeddedness. Further, the research will consider impacts from spatial switching (Yeung, 2002) in the cinnamon industry and how it influences local actors and regional development in the case study regions of Karandeniya, a traditional cultivating hub, and Matale, a region new to cinnamon cultivation.

There are three primary motivations for the research. First, Sri Lanka is

the main cinnamon producer and exporter globally. According to FAO STAT, Sri Lanka captured the highest amount of value added via cinnamon exports globally in 2016. According to data supplied by the Sri Lankan Export Development Board, the Sri Lanka cinnamon industry has benefited from increasing demand for cinnamon globally, which has been accompanied by a rapid increase in prices. The number of cinnamon importing countries, for example, increased from 51 to 72 between 2001 and 2018, while export prices rose from 340.70 LKR/kg to 1857.89 LKR/kg. However, while some policy studies have been conducted, for example the report published by the United Nations Industrial Development Organization (UNIDO, 2016) and one by the Institute of Policy Studies of Sri Lanka (IPS, 2017), no research about the Sri Lankan cinnamon industry can be found in the economic geographical literature.

Second, this research helps to fill a void in the existing GPN literature. The GPN framework has been widely used, but the vast majority of studies focus on downstream activities connected to manufacturing industries and, to a lesser extent, service industries. Analyzing the Sri Lankan cinnamon industry necessitates a focus on upstream activities.

Finally, this research tries to broaden discussion about regional development. The existing GPN view of regional development focuses only on economic growth. In this research, by way of comparison, the distributional view of regional development is introduced. This view

expands the scope of regional development to include an examination of equity potential for all stakeholders.

## **2. Thesis Outline**

The remainder of this thesis is organized as follows. Chapter II (Theoretical Background), presents (1) the Global Production Network framework and its main concepts, and (2) the formulation of a new economic order and corresponding limitations to existing economic geographical debates. Next, chapter III (Research Background) provides (1) multi-spatial background for the cinnamon industry and (2) an introduction of the regions targeted for analysis. Following the research background, chapter IV (Case Study Comprising the Research) presents (1) the research questions, (2) data and methodology, (3) results and discussions, and (4) a summary. Lastly, the thesis culminates with chapter V (Conclusion), which provides a brief summary, limitations to the study, and implications for future research.

### **III. Theoretical Background**

#### **1. Global Production Networks**

Global Production Networks (GPNs) capture the dynamics of the world economy inclusive of regional development considerations (Coe et al., 2004; Coe et al., 2008; Coe and Hess, 2010; Yeung, 2015). GPNs are defined as, "...the globally organized nexus of interconnected functions and operations by firms and non-firm institutions through which goods and services are produced and distributed" (Coe et al., 2002, p. 471). Since 2002, when the concept of the GPN was first explored by Henderson et al. (2002), the framework has seen consistent developments. The authors (Henderson et al., 2002, p. 437-438, original emphases) argue that, "...the world is now constituted by *both* a space of places *and* a space of flows and thus a key issue has become the nature of the dialectical relation between these spaces and the consequences of that relation." They emphasize how flow affects the development of space and, conversely, how space affects economic flow. These considerations are reflected in the GPN framework.

More specifically, each actor in a GPN is embedded in various territories and at multiple spatial scales (Coe et al., 2008), interacting with other actors and influenced by the environment in which they are embedded. All of these interactions in turn impact the environment in which actors are

situated (Henderson et al., 2002). Because all of the environments in which actors are embedded are different, power relations between the actors develop differently as well. Furthermore, interactions are viewed as contingent in that they develop and become more complicated as time goes by (Coe et al., 2008). Over the course of these processes, regions in which actors are located may necessarily see periods of development and decline (Lee, 2006). In order to systemically analyze the world economy and associated impacts on regional development inclusive of these complex interactions and power relationships, a framework sensitive to time and space is required; it has been suggested that GPNs enable such analyses (Coe et al., 2008).

This section addresses several facets of the GPN framework integral to the study of Sri Lanka's cinnamon industry. First, it introduces the historical genesis and development of the GPN framework and limitations to existing studies. Next, it introduces the GPN framework and its main concepts from the perspective of regional development. Here, literature establishing the GPN framework vis-à-vis development is explored (e.g. Henderson et al., 2002; Coe et al., 2004; Coe and Hess, 2010). The next section builds upon this literature. Second, it addresses strategic coupling between GPNs and regional assets, regarded as the first step in regional development. Third, it covers value creation, enhancement, and capture in a region, and how they affect regional development in addition to power relationship considerations.

Power relationships play an important role in value capture and are essential to understand regional development. Fourth, there is a discussion of institutions and embeddedness. These factors influence the process of strategic coupling and interactions between GPNs and regional actors. Lastly, the section explores the distributional view of GPNs, not often discussed in the literature.

### **1) Past Debates and GPNs: What is in a Word?**

While the GPN framework has its roots in Global Commodity Chains (GCCs) and Global Value Chains (GVCs), it has approached these frameworks critically (Henderson et al., 2002). GCCs, GVCs and GPNs try to understand the social and economic dynamics in contemporary capitalism (Hess, 2009; Parrilli et al., 2013). They have in common a concern with the production and distribution of commodity and services transnationally, and the chains or networks characterizing the actors and relationships involved. Also, they pay attention to the creation of profit and power relationships. However, there are differences as well.

The GCC conceptualization was influenced by World Systems Theory, which focuses on differentiation, both in terms of actor roles and capabilities, between the global North and global South (Hess, 2009). During the initial stage, the impact of state power on the international movement of commodities was mainly addressed. However, some scholars, for example

Gereffi, shifted emphasis to the role of the firm. In this regards, GVCs classified firm governance structures into two types, namely producer-driven chain and buyer-driven chain (Gereffi, 1999; Lee, 2016).

However, these two types of governance were too simple to catch the dynamics of newly emerging world economic activities. Therefore, GVC scholars devised five types of governance structures; classic market, modular, relational, captive and hierarchy (Gereffi et al., 2005; Gereffi, 2014). These structure typologies allowed for an understanding of various governance structures in different industries and sectors (Hess and Yeung, 2006). Furthermore, they enabled different forms of governance according to the level of placement along the chain and the extent of the industry's maturity to be examined (Gereffi, 2014). GCCs/GVCs provide insight into economic development. However, because these frameworks primarily focus on governance structures, they may fail to consider other factors such as geographical elements (e.g. territoriality) and a broader scope of actors.

GPNs try to overcome the limitations associated with GCCs and GVCs; the very term 'Global Production Network' itself reflects this effort. In the following, the intentional development of GPNs will be addressed by explaining why the terms 'Global', 'Network' and 'Production' were adopted.

According to Henderson et al. (2002), the term 'Global' was used intentionally instead of 'international' or 'transnational' based on the

criticism that existing GCC- and GVC-oriented studies focus only on the national scale. They point out that words like ‘transnational’ and ‘international’ are derived from state-centric thinking. While they pay attention to actions that cross borders, they nonetheless are limited in their ability to capture interactions between the global and local scales. Therefore, GPNs seek to overcome this limitation by using the term ‘Global’ from the onset, therefore focusing the analytical lens. In turn, the GPN framework captures multi-scalar interactions by simultaneously focusing not only on the national scale, but also on scales ranging from the local, to the regional, to the global (Challies, 2008).

The term ‘network’ is differentiated from the ‘chain’ metaphor which both GCCs and GVCs use in common. If the focus is on the process of gaining profit through material or non-material inputs and outputs of products or services, it can be seen as linear, that is, in the form of a chain (Coe et al., 2008). However, if conceived linearly, there is a danger of missing the dynamics and complicated flows associated with profit generating processes (Henderson et al., 2002). Challies (2008), for example, argues that even though the commodity chain is *not* linear *nor* unidirectional, in reality it is easy to be trapped by deploying the ‘chain’ terminology when examining economic activity. Using the ‘chain’ metaphor, for example, leads to a focus on the structure of economic interconnections, therefore causing an overemphasis on the study of inter-firm relations. Given this

pitfall, interactions between firms and regions, or *where* economic activity really happens, are overlooked. Therefore, GPNs integrate the term 'Network', which originated in the existing Actor-Network Theory literature. By using the 'Network' metaphor, GPNs capture the dynamics and complexity that characterize knowledge and power flows in multiple ways, rather than a one way flow from the producer, to intermediates, to the final consumer (Henderson et al., 2002).

Lastly, the word 'Production' can be compared with the term 'commodity' in GCCs. According to the Cambridge Dictionary ("Commodity", n.d.), commodity means, "...a substance or product that can be traded, bought, or sold". It connotes the meaning that an action has already been completed. Therefore, Henderson et al. (2002) exclude 'commodity' in that its meaning is not anchored in time and space, and it does not consider individual or firm agency. They therefore use the term 'product'. They regard the meaning of this term to involve the *process* of producing products and services on the one hand, and reproducing knowledge, capital, and labor power on the other. In other words, human agency is considered by using the term 'product'.

Overall, these considerations are linked to limitations related with existing GCC and GVC studies in that they only focus on the firm and inter-firm relations. Coe et al. (2004), for example, point out that GVC discussions concentrate on 'firm actors' within the (linear) value chain and

their relationships, and regard other actors as an external force. As such, they argue that not only firm-level actors, but also all of the actors associated with production processes, need to be considered. The process of producing and distributing the product and services, they relate, is not a simple economic activity. The process is affected by the social, political, and cultural characteristics of the region, necessitating the simultaneous analyses of various non-firm, regional level actors *in addition to* firm level actors and interactions. This type of embedded, multi-actor analyses has also been suggested by other geographers (see Hess, 2009). In this regard, the flows of knowledge and power between actors are also multi-directional. In this circumstance, a region also potentially experiences dynamic changes.

## **2) Regional Development and Strategic Coupling**

Despite some of the drawbacks associated with the GCC and GVC frameworks, GPN treatment of regional development has been influenced by GCC/GVC and New Regionalism theory. GCCs/GVCs focus on organizational structure and, concerning regional development, on how the region enters into a given network. However, because of the state-centric orientation, there is a tendency for analysis at the regional scale to be neglected. On the other hand, in the New Regionalism literature, endogenous assets are regarded as important factors during the regional development process. Therefore, ‘institutional thickness’ suggested by Amin

and Thrift (1992) is regarded as a precondition for regional development. Institutional thickness is defined as an, "...interlocking and integrated web of supportive organization and institutions 'including firms, financial institutions, local chambers of commerce, ..., marketing boards, and so on'" (Keeble et al., 1999, p.328). Also, this term emphasized not only the existence of institutions, but also the synergy effect potentially created by supportive institutions. By overemphasizing the internal factors of a region, however, it fails to grasp interactions with the external environment, which, in turn, are integral to regional development. By combining the two perspectives, discussions about regional development in the GPN literature overcome the endogenous/exogenous dichotomy characteristic of existing work (see Coe and Hess, 2010; Coe and Hess, 2013).

Coe et al. (2004, p. 460) define regional development as, "...dynamic outcomes of the complex interaction between territorialized relational networks and local production networks within the context of changing regional governance structure". Regional development here is determined through contextual and interdependent exchange processes between internal, regional specific factors and external flows. To achieve regional development, there should be 'strategic coupling' between endogenous regional factors and the strategic needs of exogenous trans-local actors, or an external flow (Coe et al., 2004).

Regional assets, according to Coe et al. (2004), include technology,

organizations, and territories, which Storper (1997) describes as the ‘holy trinity’. According to Storper (1997), technology and technological change are important for regional development. Indeed, the invention of a new product or as improvement to a production process can change regional development trajectories. For example, they can change the cost-price dimension or the locational pattern of production. Organization refers to the group or networks of firm actors or other actors. Proximity affects the development and maintenance of organizations. Lastly, concerning the territory, there are local interactions or spillovers between actors, both inter-firm and extra-firm in nature. State agencies, labor organizations, business associations, and others are extra-firm actors associated with regional economies or territories.

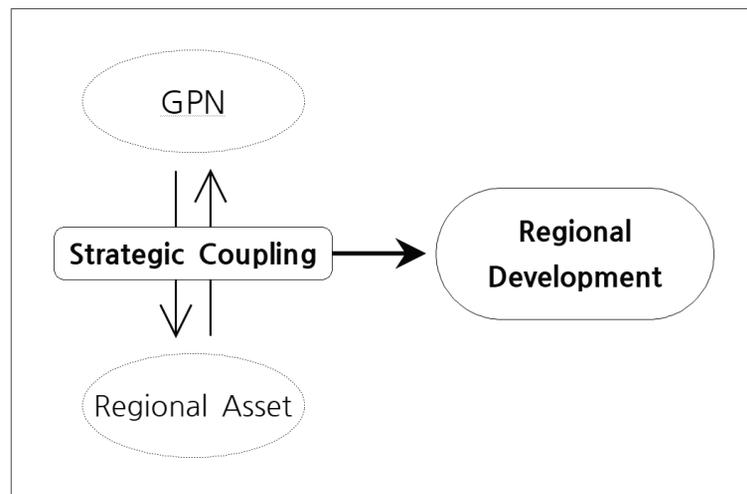
Additionally, there should be a benefit of economies of scale and scope derived from human resources, technology, and a functioning institutional base (Coe et al., 2004; Coe and Hess, 2009). According to Coe and Hess (2009, p. 131), economies of scale mean that skill, knowledge, and experts related to a specific industry are concentrated in one region (e.g. in a cluster), and contribute to both firm and regional-level competency accumulation. Economies of scope mean that, for example, through a cooperative and learning conducive atmosphere, information is shared between the actors in a given region, again contributing to its competitive advantage. In short, there should be accumulated human and material resources in a region, and

through them, there should be an upgrade in the quality of firm and regional level assets. Regional assets are validated only when they correspond to the strategic needs of a GPN (Coe et al., 2004).

On the other hand, GPNs, as previously stated, are, "...the globally organized nexus of interconnected functions and operations by firms and non-firm institutions through which goods and services are produced and distributed" (Coe et al., 2002, p. 471). GPNs consist of various economic actors who participate in and across two or more national scale economies aided, in part, by competitive logics. The typical economic actors who participate in GPNs are firms. In turn, there are two types of firm actors; one is the TNC which has been treated as a representative GPN actor, and the other is the trans-national firm. The latter type engages GPNs through international trade, basing operations in the home country (Yeung, 2015). GPNs, however, integrate not only firm actors, but also other actors within regional and national economies. Simultaneously, actors are influenced by the social, political and cultural environment of the region (Coe et al., 2004). Further, the GPN workforce preference can vary according to the characteristics of a given industry (Barrientos et al., 2011). GPNs, as such, become more complicated with increases in scale and scope.

If the regional assets coincide with the strategic needs of GPNs, strategic coupling occurs (Coe et al., 2004) (Figure 1). Yeung (2015) argues that a regional economy can realize profit via GPN dynamics when there is

strategic coupling. He defines strategic coupling as, “The intentional convergence and articulation of actors in both regional economies and GPNs for mutual gains and benefits” (Yeung, 2015, p. 5). The flow of material and non-material goods takes place through the interdependent, trans-regional linking of two or more groups of actors.



**Figure 1 Strategic Coupling and Regional Development**  
Source: Adapted from Coe et al., 2004

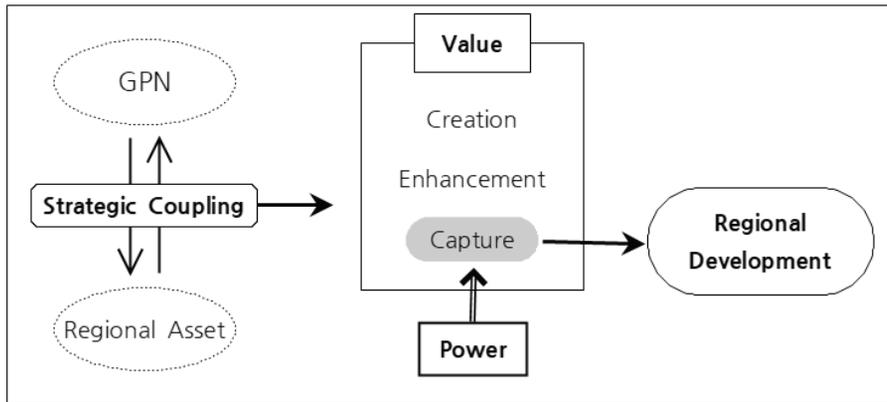
There are various kinds of strategic coupling. MacKinnon (2012) suggests three types of strategic coupling, namely international partnership, indigenous innovation and production platform. When GPNs and regional actors intentionally connect for mutual benefit, it is classified as an international partnership, also called a functional connection. In this case, the role of labor is divided according to the type of firms. For example, Taiwan and Singapore achieved development through direct coupling with GPNs. Indigenous innovation, or an organic coupling, occurs when a global lead firm and regional assets co-evolve in the same region. This is common

to developmental countries like South Korea. To accomplish this, continuous support of regional and national actors is needed. The last type is a production platform, which means the host region of a developing country structurally depends on lead firms from, and the market in, developed countries. In this case, these regions implement strategies to attract lead firms to their region (Yeung, 2015; Parrilli et al., 2013).

There is no guarantee, however, that strategic coupling will be accompanied by successful regional development. Strategic coupling takes different forms depending on the geographical context. Moreover, it varies as time passes. While the strategic needs of GPNs transform fast, regional assets transform relatively slowly, thus generating a gap between them (Coe et al., 2004). Therefore, over time, strategic coupling may be broken (decoupled) and reconnected (recoupled). In GPN 2.0, Coe and Yeung (2015) introduced various strategic coupling possibilities, joined with this additional factor - 'time'. The extent of profit that a region may capture through strategic coupling can vary as time goes by; it can, for example, grow rapidly, be grown steadily, be static, decline steadily or decline rapidly. Even through a region may capture profit now, it may change in the future. Therefore, depending on the extent of profit at any given time, the region can strategically decouple with certain GPN actors and recouple with entirely new GPN actors. Consequently, GPNs may be analyzed over time and in relation to how they affect regional development (Yeung, 2015).

### 3) Value and Power Relationships

In this section, value creation, enhancement and capture will be discussed. Furthermore, ‘power’, which has a profound effect on value capture integral to regional development, will be addressed (Figure 2).



**Figure 2 The Regional Development Process and GPNs**

Source: Adapted from Coe et al., 2004

Strategic coupling can be regarded as the first step in a regional development effort. However, there is no guarantee that the strategic coupling will affect regional development positively. To be connected to successful regional development, the effect of strategic coupling must be maximized through value creation, enhancement and capture within the region (Lee, 2006). Various actors in various region cooperate and compete with each other with regard to value creation, enhancement, and capture. Over the course of this process, the value created in a given region, leak over into another region (Coe et al., 2004).

In the GPN literature, value means economic rent as suggested by

Kaplinsky (1998) or surplus value suggested by Marx (Coe et al., 2004; Henderson et al., 2002). After strategic coupling, regional actors and GPN actors create value in the region in various way. Coe et al (2004) insist on the importance of value creation. According to these authors, if no value is created in the region, there is no value that can be enhanced or captured. The most common form of value creation is creating profit by using labor value. Other authors have suggested other ways to create value. Kaplinsky (2005), for example, suggested various types of rent through which value can be created, namely technological rents, human resource rents, organizational rents, relational rents, brand rents. Additionally, value can be created through ‘exogenous’ rent like resource rent, policy rents, infrastructure rents, and financial rent. Different types of rent can be formed depending on regional specificities. Each region can choose the most favorable form of rent which is beneficial to it. In time, specific types of rent generated in a particular region can be changed to other type of rent. This is often necessitated when value of the initial rent or rents is transferred, or ‘leaked’ to another region (Coe et al., 2004; Coe and Hess, 2010). This will be addressed in depth in the results section.

Value enhancement occurs when upgrading the skills of regional actors, thereby maximizing the created value. For example, a lead firm located in a region can affect the skill upgrade of subcontractor firm in the same region, or local firm may inherit technology from a GPN actor in the

same region. Through these processes, a firm located in a certain region can create their own rent (Henderson et al., 2002). To do so, a co-operative relationship between the regional actors and GPN actors is important (Lee, 2006).

Value capture means, as the word implies, that value is kept in the same region where it is created and enhanced, and that it does not leak out to different regions. This is the most important factor that directly affects regional development, and is different than value creation and enhancement (Henderson et al., 2002). Even though value is created and enhanced within a region, if leaks out to other regions, it is no longer beneficial for regional development (Coe et al., 2004). There are many factors that affect value capture, including government policy, firm ownership structure, and governance. However, the most important factor concerns power relationships between the actors (Henderson et al., 2002; Coe and Hess, 2010). Power is unequally divided among actors who participate in GPNs (Henderson et al., 2002). Power imbalances between actors in turn influence the degree of value capture, thereby directly affecting the region in which actors are co-located (Coe and Hess, 2010).

The conceptualization of 'power' in GPN framework is influenced by Allen (2003)'s interpretation. He regards power as, "...relative effects of social interaction" (Allen, 2003, p. 5). He argues that, "It may bridge here and there, but only through a succession of mediated relations or through the

establishment of a simultaneous presence. People are placed by power, but they experience it at first hand through the rhythms and relationships of particular places, not as some pre-packaged force from afar and not as a ubiquitous presence” (Ibid, 2003, p. 5). He denies interpreting power as a ‘god’ which governs all things, merely existing at some undefined distance. He argues, conversely, that power exists in our everyday life. It is generated and exercised through each single relational encounter. In this context, Yeung (2005, p. 45) also regards the powers as “...the emergent effects of *social practice among actors* who have the capacity and resources to influence.”

Henderson et al. (2002) recognize three types of power - corporate power, institutional power and, collective power – based on the main actor who exercises it. Corporate power is exercised by firm actors. Using that power, they impact decision making or resource allocation in ways that are advantageous to them (Henderson et al., 2002). Institutional power, as the term suggests, is usually exerted by specific institutions (Lee, 2006). The central or local government, transnational agency, local union or other kind of group are typical actors who exercise institutional power. Groups such as trade associations or employer associations usually exercise collective power. They can fight against actors who have corporate or collective power directly or indirectly (Henderson et al., 2002).

The extent of regional value capture is a result of complicated

negotiations between local actors and GPNs actors (e.g. a lead firm). The more regions seek to engage in strategic coupling with GPNs, the more bargaining power the GPNs actors have. Locally situated actors may therefore try to attract GPN firm-level actors by supporting the institution or system perceived as beneficial to firms. Conversely, if regional assets satisfy the need of GPN actors, and there is a cooperative atmosphere among state, labor, business institutions in the region, the region can gain an advantage with higher bargaining power (Coe and Hess, 2010).

#### **4) Embeddedness and Institutions**

Several important factors influence the strategic coupling process between regional assets and GPNs. In turn, the processes via which value is created, enhanced and captured in the region affect regional development. Embeddedness and institutions matter. Whether it is a local or global actor, all action is situated in a local context. Furthermore, the social, cultural, political and institutional environment of the place has an affect on actor behavior and decision making (Henderson et al., 2002). Institutions, too, have a significant impact on all processes. In this section, regional development is approached vis-à-vis the intricacies of embeddedness and institutions impacting processes of strategic coupling and value creation, enhancement and capture.

## **(1) Embeddedness**

The Concept ‘Embeddedness’ was initially explored by Karl Polanyi (see Hess, 2004), tackling flows in markets regarded as perfect tools for economic activities. People were treated as rational beings who pursue maximum efficiency. He emphasizes that all economic activities are encapsulated within societies in which people have their own historical and cultural background. Therefore, the concept of ‘embeddedness’ considers the social relationships linking actors and their societal structures within which all economic actions are grounded (Hess, 2004).

Embeddedness used in the GPN framework therefore stems from the concept that all actor behavior is seeded in place specific, contextual milieu. More specifically, actors interact with the social, cultural and political environment of the region (Henderson et al., 2002). Indeed, firm actors, which are typical in GPN research, experience path dependency during decision-making processes influenced by the institutional and societal environment of their home region, though this may decrease as time goes by (Henderson et al., 2002). In addition, if they enter a new region, they are again necessarily influenced by the region’s environment. The higher the level of embeddedness in a certain region, the more difficult it becomes to leave the region. In part, this is connected to the possibility that more value is created, enhanced and captured within the region in which the firm is embedded (Choi, 2015).

Hess (2004) classified embeddedness into three types - societal embeddedness, network embeddedness, and territorial embeddedness. Societal embeddedness considers economic actors' path dependency vis-à-vis their societal background, including cultural, political or historical context, which affect their decision making. The term "genetic code" (Hess, 2004, p. 176) is used to describe it. Societal embeddedness is most similar to the initial conceptualization of embeddedness suggested by Polanyi. This type of embeddedness was not discussed in initial GPN framework studies but was later suggested by Hess (2004). However, it is widely deployed in subsequent GPN debates like scholars such as Johns (2006), Hauge (2016) and Brooks (2013).

Network Embeddedness focuses on the durability and stability of the relationships among actors, regardless of the region in which actors originate or are anchored. Through this type of embeddedness, actors build trust and maintain a stable relationship with other actors. Not only firm actors, but also actors such as a government organizations or unions participate in this type of network. Network embeddedness consider both the relational aspect focusing on an actor's individual networks and the structural aspect focusing on the structure and evolution of the network itself. Furthermore, it allows for connection between actors to be formed as well as reversed. Therefore, the change in relationships over time is a main focus (Henderson et al., 2002; Hess, 2004).

Territorial embeddedness considers the extent to which all economic actors and activities are anchored a specific territory. Territorial embeddedness is the most commonly discussed in the GPN framework, and is connected to regional development through strategic coupling with GPN actors. The more a place is invested in existing pools of economic actors, for example in a cluster or via government policy supporting GPN actors' economic activities, the more territorial embeddedness economic actors have (Hess, 2004). Further, by being embedded is a specific territory, actors can benefit from other actors in the region. A new network can be developed, for example, or new actors can be attracted to the region (Henderson et al., 2004). Usually, local actors are relatively more embedded in the territory than non-local actors (i.e. GPNs actors). Thus, depending on the power relationship between them, the extent of value capture in the region may differ, which is in turn connected to how strategic coupling influences regional development (Coe et al., 2004).

All types of embeddedness are interconnected. They are, "...closely knitted to one each other and, in combination, form the space-time context of socio-economic activity" (Hess, 2004, p. 178). Therefore, all types of embeddedness should be considered simultaneously.

## **(2) Institutions**

Institutions influence all processes, from the strategic coupling to

regional development. At the stage of strategic coupling, for example, regional institutions function as “glue” (Coe and Hess, 2010, p. 475) Institutions can mean two things, namely “formal organizations” or, “...the wider set of informal social norms and practices that shape behavior” (Barrientos, 2014, p. 793).

Each meaning has a different hierarchy as can be seen in Williams’ (2000, p. 596-599) work, which contains four levels social analysis - social embeddedness, institutional environment, governance and resource. Social embeddedness, the first level, consists of norms, customs and traditions. They are formulated naturally as the society evolves and change very slowly compared with other levels. The institutional environment, the second level, consists of formal rules such as constitutions and laws. A government performs legislative and bureaucratic role at this level. The third level is the ‘governance’. The governance of contractual relations functions importantly at this level. The fourth level is ‘resource allocation and employment’. While Barrientos’ second definition of institutions corresponds with the second level, institutions as “formal organizations” correspond with the third level. The concept “institutions” used more broadly in economic geography belongs to the third level (see Williamson, 2000; Neilson and Pritchard, 2009).

In GPN debates, the institutional impact on each stage of the regional development process is usually discussed. At the stage of strategic coupling,

for example, the characteristics of regional labor or government are influential. Concerning labor, the human capital indigenous to, and characteristic of, a given region may vary. GPN actors want to couple with a region that has labor capabilities that best align with their interests. Therefore, as the labor capabilities of a certain region fit with the strategic needs of GPNs, the possibility of strategic coupling becomes much higher. Concerning the government, policy supporting GPN activities affect strategic coupling. A cooperative relationship between the government and labor contributes to strategic coupling. Furthermore, not only characteristics of government and labor, but also financial institutions also influence strategic coupling possibilities. The institutions that influence strategic coupling are not confined to the regional per say. National and international institutions, and even institutions outside of the region, can affect strategic coupling possibilities (Coe et al., 2004).

Institutions also influence the process of value creation, enhancement and capture. By training local labor or supporting startups, value creation can be promoted. In short, institutions supporting high value-added production can help to maximize the value of the regional asset, and are therefore connected to value enhancement. In addition, supporting the value enhancement activity of local firms can be connected to the influx of additional core manpower or techniques at the regional actor level. Lastly, the institutions that control power and regulate economic actors, including

GPN actors, are important for value capture (Coe et al., 2004; Coe and Hess, 2010).

## **5) Adding a Distributional View to GPNs**

In the previous section, the process of regional development from the perspective of GPNs was addressed. And, as mentioned previously, the GPN framework provides a useful tool for understanding the dynamics of the global economy *and* regional development. Nevertheless, some limitations have been pointed out. Choi (2015), for example, argues that though existing studies have attempted to analyze regional development, they have only focused on the ‘growth’, thereby overlooking how these process effect the region in any depth. Also, by fixing the concept of value as economic rent, GPNs discussions only concentrate on ‘economic development’. In a similar context, Coe and Hess (2010) also point out that the value concept primarily lends itself to consideration of only economic factors. As such, there is danger that ‘growth’ and ‘well-being’ are not distinguished. In addition, Choi (2015) points out that existing discussions consider only firm actors like TNCs, or local firms and local government organizations attempting to merely establish GPNs in the region.

According to Coe and Hess (2010), the process of regional development suggested by the GPNs framework is ideal, but impossible in real life. The approach is practical, for example, only when local actors have

a single interest and establish strategic coupling with GPNs to fulfill this interest. However, in reality, though bound by a profit motive, actors may have all different interests even though they are located in one region. Therefore, over the course of the regional development process, while some actors can indeed make a profit, or capture value, there are others who cannot; in a worst-case scenario, some actors may even experience loss. In other words, a gap emerges between actors that can grow over the course of developmental efforts (Coe and Hess, 2010). Coe and Hess (2010, p. 135) point out that strategic coupling can cause friction within the region, including, "...uneven resource allocation, social and class conflict, gender inequality." These things cannot be captured in existing GPNs discussions that only focus on economic growth, firm actors, and government activity.

Therefore, Coe and Hess (2010) and Choi (2015) make the case for the introduction of a distributional view to the GPN framework. Coe and Hess (2010) argue, for example, that the introduction of a 'distributive regionalism' that considers how to reduce intra-regional inequality is needed. This would go beyond 'investment regionalism', which only deals with economic growth and value added considerations. In other words, by adding a 'distributional' factor to the existing creation, enhancement and capture of value, it should be possible to consider *how* the captured value *influences the region and individual actors* over the course of development (Choi, 2015).

By extension, there is also a need to consider not only firm and government actors, but also all actors who participate in regional economic activities, including labor and households, some of which may be located in the periphery (Choi, 2015; Coe and Hess, 2010). The process of regional development through strategic coupling is closely connected to the livelihood of the people in the region either directly or indirectly. Most of the value created in a region appears when, to earn a living, individual actors access available resources and transform them. In a similar context, Klooster and Mercado-Celis (2016) suggest that sustainable development, differentiated from firm-lead development, pursues value capture for workers, communities and the environment through social and environmental upgrading.

Furthermore, processes unfolding after strategic coupling occurs should also be considered. If strategic coupling with GPNs causes side effects in the region, for example, instances of decoupling and recoupling should be considered. Coe and Hess (2010, p. 136) argue that, “Any development strategy aimed at enhancing economic well-being, social justice, and participant/democracy must, therefore, reflect decisions about which networks should be engaged with and which should be de-coupled from thereby actively shaping the region’s positionality with respect to wider economic systems.” In real life, strategic decoupling and recoupling is a common phenomenon. When region, and actors in the regions, fail to

catch up to and meet the strategic needs of GPNs, strategic decoupling can occur regardless of regional actor intention. On the other hand, regional actors may intentionally cut, or strategically decouple, with particular GPNs in order to capture more profit. After the strategic decoupling, there can then be strategic (re)coupling with other GPNs. This potentiality is explored in more depth vis-à-vis the target case study regions.

## **2. Agriculture and the Global South**

While the importance of the global South has been increasingly recognized, and changes to economics in the global South are connected to the formulation of the new global space economy, most economic geographical discussions are still western-centric and regard the global South as passive and poor (Zoellick, 2010). GPN discussions are no exception. Even though they cover this area of interest, most regard the south passively and as subordinated to developed countries. Concerning this, it will be suggested that analyzing agricultural activity in the global south through a GPN lens can help to overcome this limitation in the literature.

### **1) The Increased Dynamics of the Global South**

In 2010, the president of the World Bank Group, Robert B. Zoellick, declared, ‘The End of the third world’ (Zoellick, 2010). According to his speech, the word ‘third world<sup>①</sup>’ had been widely used for decades to mean countries that required international aid for development. However, the economic growth of those very countries has been outstanding over the course of the same time. Some of them, such as China and India, have emerged as a new economic leaders and therefore helped to usher in the

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<sup>①</sup> There are a lot of ways to divide the world, i.e. developed and less developed countries, global North and South. One of them is First, Second, and Third world division, which had geopolitical means. In here, The First world refers the capitalist/liberal democratic countries and The Second world refers Communist world. The Third world is none of both and usually regarded as the poor countries. However, this way to divide the world is not used anymore, nowadays (Rigg, 2007; p. 3).

formulation of a new order characterizing countries, their economic activity, and the relationships that bind them. The world, if brief, is increasingly morphing into a ‘multipolar global economy’ with a plethora of active, dynamic economies in the global South.

Indeed, countries in the global south have recently demonstrated a degree of strength in the global economy. Catching this phenomenon, in 2013, the UNDP published a report titled, ‘The rise of the South’. According to this report, while developed countries were stagnant in the wake of the 2008-2009 global financial crisis, the South was, at least to some extent, surprisingly resilient, and asserted itself in the establishing of a new economic order. Indeed, the growth of countries in the South is remarkable in terms of both GDP and trade. While their share of global GDP was 21.7% in 1980, it increased to 35.8% in 2012. Also, the South’s share of world exports was 29.6 % in 1980, yet it is increased to 44.7% in 2012. The increase in their income is connected to the structure of their demand, a basic tenant of both economic and economic geographical projections. The South’s demand for imports increased by 316% from 2000 to 2013, while the North’s demand increased by 119% (Horner, 2016, p. 406-407).

However, the rise of the South does not mean all of the developing countries rose equally. Most of the outstanding growth in the South has been experienced by a few emerging countries like China, India, Brazil, and South Africa. For example, when the South’s demand for imports increased

by 316%, a few leader countries influenced the figure, namely Brazil (327%), India (804.5%), China (766.6%) and South Africa (325.5%) (Horner, 2016, p. 407). In addition, the UNDP report expects that, “By 2050, Brazil, China and India combined are projected to account for 40% of world output in purchasing power parity terms” (UNDP, 2013, p. 1). In other words, with respect to the remarkable growth of the global South, several main countries have played a leading role.

However, this does not mean that the other developing countries are not growing. There are many countries that have made steady progress, such as Bangladesh, Chile and Rwanda, even if this progress has not been as remarkable as India’s or China’s (UNDP, 2013). A new order is being formulated in the global economy, and a gap has emerged between the countries that had been bound together in one group. Williams et al. (2014, p. 3) argue, for example, that, “Within the Global South today are emerging superpowers and failed states, the world’s faster-growing economies and the vast majority of the global poor.” In fact, the only commonality they share is that they had previously been classified into the one group (Williams et al., 2014).

The new order has also contributed to inequalities within individual countries. According to Rigg (2016), there has been outstanding growth in Southeast Asian countries such as Indonesia, Malaysia, Thailand and Sri Lanka. They have ascended from the ranks of low-income countries to join

the ranks of middle-income countries. However, he points out that the inequality inside the countries has intensified. When they were low-income countries, the solution for poverty was succinct. However, in light of the growth, the income gap between people has increased, thus necessitating diversified solutions for poverty.

Research therefore needs to recognize specificities associated with this new order. One example of this is new competition within the global South. For example, Leseure et al. (2009) introduce how the Mauritius and Morocco have taken action to survive in the textile industry against China's domination. This phenomenon cannot be explained in terms of antiquated categorizations and inter-relationships. Rather, it is important to capture the dynamics of the emergent system by focusing on each region and, by extension, the actors within those regions.

## **2) The Global South in Economic Geography**

Economic geography has been criticized for being overly western-centric. Yeung and Lin (2002), for example, argue that Western based studies have long been regarded as donating standardly applicable procedure in economic geography. Even though non-western regions have their own specific characteristics, they are not reflected in mainstream discussions, or, as is more often the case, studies dealing with them are categorized generally into regional geography or developmental studies (see Yeung and

Lin, 2002; Potter, 2001). Also, even in research dealing specifically with issues concerning the global South, regions are portrayed negatively with emphases on poverty, debt or environmental problems. Furthermore, research tends to concentrate on regions that need help from the outside to solve their problems (Williams et al., 2014). There is a limited amount of research dealing with the economic geography of non-western regions, but most of it focuses on successful emerging economies, for example those in East Asian countries (see Murphy, 2008).

However, outside of the economic geographical literature, there are examples of studies in which countries in the global South are not treated as simply poor and passive. For example, some scholars (e.g. Glasbergen, 2018., Neilson and Shock, 2014., Sumadio et al., 2017.) reposition once passive and poor farmers as now possessing agency and the ability to spontaneously capitalize on opportunities to improve their situations. Neilson and Shock (2014), for example, point out that the development strategies implemented in the Toraja region of Indonesia were not effective because they just assumed that farmers had no knowledge of, and no power in, the market. This stood in contrast to the reality on the ground and the familiarity of local farmers with their market and market forces impacting it.

Having said this, the aforementioned limitations can nonetheless be extended to GPN debates. In all fairness, though, compared with other strands of economic geographical research, it should be noted that the GPN

literature has covered more regions in the global South (i.e. Horner, 2013; Yeung, 2009; Yang, 2009; Henderson and Nadvi, 2011; Lund-Thomsen, 2013; Barrientos, 2013; Franz, 2010; Wei et al., 2010; Kelly, 2013; Lund-Thomsen and Coe, 2013; Hughes et al., 2012; Murphy and Schindler, 2009; Barrientos, 2014; Hauge, 2016; Breul and Diez, 2018). However, from the start, GPN research was influenced by GCC discussions, which, as mentioned previously, divide the world into core and peripheral regions, largely based on World Systems Theory. Therefore, GPN discussions also have included a North-South context. Regions in the global South are, again, usually painted as passive. Actors and their actions in the global South are subordinate to lead firms from the global North and affected by market demand in the global North (Horner, 2016).

There are two main strands in the GPN literature that deal with regions in the South. The one strand focusses on regional-level strategic coupling with lead firms from the global North (i.e. Horner, 2013; Yeung, 2009; Yang, 2009). This strand usually deals with the regions in emerging East Asian countries or India. For example, Yeung (2009) compares the different means of strategic coupling with a lead firm in each major growth region of East Asia, arguing a need to escape from the developmental state perspective. Rather, he argues for studying how economic actors such as lead firms operate in specific regions through the strategic coupling process. In another example, Horner (2013) deals with the pharmaceutical industry of India and

how different strategic coupling opportunities have influenced the region over time.

The other strand focuses on labor and working environment, and how other actors affect them (i.e. Lund-Thomsen, 2013; Barrientos, 2013; Lund-Thomsen and Coe, 2013; Barrientos and Smith, 2007; Pattenden, 2016; Phillips and Sakamoto, 2012). Most of this kind of research covers regions not regarded as emerging. For example, Lund-Thomsen (2013) examines the labor of the football manufacturing industry in Silkot region of Pakistan. He argues that, labor in export-oriented developing countries has become more and more gendered and restricted. Barrientos (2013) deals with the action of civil organization that try to improve the working condition of female labor in the fruit and garment industries, finding that GPNs can help to usher in breakthroughs for female labor.

Still, in both strands of literature, the regions and the actors in them are theorized to be passive. In the first strand, lead firms from the global North are regarded as an integral to regional development. In the second strand, labor in developing countries lacks agency in the absence of external assistance. In neither instance does this mean that the research has no value. Rather, it is true that connections with the global North significantly impact the South, and that a lot of regions try to connect to the global North for regional development purposes. Also, it is important to examine the position of labor and poor working environments in the south. However, by

overemphasizing these potentialities *a priori*, there is a danger overlooking the dynamics and autonomy of regions in the global South and actor agency.

### **3) The Dynamics of the Global South through a GPN Lens**

Accessing agricultural region in the global South through a GPN lens help to rectify these problems. Existing GPN debates, for example, usually cover downstream processes by which products or services are produced and distributed, and tend to focus on the connection with TNCs. Therefore, upstream GPN processes, such as agricultural activity or extraction industries, are usually overlooked (Coe et al., 2008; Lee, 2016; Breul and Diez, 2018; Gibson and Warren, 2016; McCarthy et al., 2012).

However, for the global South, upstream activity is vital, particularly in terms of economic opportunity and development. Indeed, agriculture plays an important role in the global South. “Agriculture, covering crops, livestock, aquaculture, fisheries and forests, is the world’s biggest employer, largest economic sector for many countries, while providing the main source of food and income for the extreme poor” (FAO, 2018, p. 4). According to a World Bank report (2008; p. 3), 3 billion of the 5.5 billion people who live in developing countries live in rural areas. Among them, 2.3 billion people engage in agriculture. 1.5 billion of these actors are small land holders. As a result, more than two-thirds of the world’s agricultural value added is generated in developing countries (Mitchell et al., 2011).

As previously described, agricultural areas in the global South are also regarded as poverty stricken places plagued by problems awaiting to be solved. It is true that developing country agricultural areas are poor. According to Mitchell et al (2011, p. 5), for example, "...rural poverty still accounts for around 70 percent of absolute poverty in the South, and affects roughly a billion people, using the \$1.25 poverty line." However, there are multi-actor dynamics at play along with the aforementioned impacts stemming from institutions and power, and these may be hidden behind an unnecessarily simplistic view of poverty. In reality, the people of developmentally challenged regions do not beg for help (Kim, 2018). Instead, they seek opportunity, exercise agency to the extent possible, and strive for autonomy.

To examine the dynamics and vitality of an agricultural region in the South, a GPN framework can be a useful tool. As discussed previously, while GCC/GCC debates only focus on transnational production and distribution processes. They do not consider the region in the process or actor interaction within the region. However, GPNs approach regional development as a main concern and provide useful tools for understanding regional development such as strategic coupling, value capture and embeddedness.

Having said this, there is a dearth of GPN research that deals with agricultural regions in the South (for recent exceptions, see Pye, 2017;

Baglioni, 2017). Most of it is similar to other research that regards agricultural regions in developing countries and actors inside them as passive. Most of it deals with farmers and labor who are exploited in the global economy (see, Barrientos, 2014; McGrath, 2013; Vicol, 2014).

Nonetheless, a few studies show the potential of using the GPN framework to catch the regional dynamics of agricultural systems. A common feature is that they try to analyze small-scale actors in regions even though their roles seem small compared to large actors like lead firms. Additionally, they apply GPN framework tools. Williams (2014) insists that this approach is vital when accessing and analyzing people and places in developing countries based on the realities influencing their lives and livelihoods.

One such example is the research of Murphy and Schindler (2011). These authors study the wood product industry of Bolivia, providing useful lessons for adapting the GPN framework to regions in the global South. They point out that the approach to regional development suggested in existing GPN debates is unsuitable for studies of the experience of developing countries. Existing studies, for example Coe et al. (2004) suggest economies of scale and scope, localization economies and institutional capacity as prerequisite conditions for regional development. The role of the lead firm is integral. Concerning this, Murphy and Schindler (2011) point out that there are many more regions *not* connected to a lead

firm. Then, for regions that do not have connections to a lead firm, is there no opportunity to achieve regional development? By focusing on *regional firms acting globally* using different types of networks, they prove that even without a connection to a main lead firm from the global North, regional development can be achieved. By citing the Coe et al. (2008), they argue there is a need to shift focus to the small, regional level actors. By doing so, the autonomy of regional actors and dynamics of the regional economy can be captured.

The work of Hauge (2016) is another example. He focusses on the rice farmers of the Vietnamese Throung Than. Bypassing an *a priori* view of poverty, he addressed how the farmers react to a demand for high-quality rice by applying the embeddedness concept. Unlike the majority of research which regards the farmers as a weak, he captures power stemming from their autonomy and the dynamics of their locality.

As the above indicate, by adopting the GPN framework to the local specificities of agricultural regions in the global South, agency, autonomy and local dynamics can be captured, thus providing as escape from the image of poor and passive actors and places. In this regard, it is important to apply analytical tools and concepts to local realities, focusing not only on large actors (i.e. lead firm) but also on the activity of small actors (i.e. small holder farmers).

### **3. Summary and Implications for the Thesis**

This chapter consisted of two main sections. In the first section introduced the GPN framework and its main concepts from the perspective of regional development. This section consisted of five sub-sections.

The first sub-section, introduced the purpose of the GPN framework and compared it to existing GCC and GVC frameworks. The GPN framework tries to escape from state-centric discussions and pursues a multi-scalar view. Also, it avoids the ‘chain metaphor’, which is linear and unidirectional, and instead applies a multidirectional flow of capital, knowledge, and power in the processes of producing and distributing products or service. By ways of comparison, GPNs consider all the actors who participate in these processes, how they interact with the regions, and what effect they have on regional development.

The second sub-section highlighted the main components of the GPN framework, reorganized by insights from regional development processes. This section addressed how the GPN framework regards regional development vis-a-vis ‘strategic coupling’. The GPN framework regards both internal factors and external flows as important for regional development. Therefore, strategic coupling between the regional assets and GPNs is considered a prerequisite for regional development.

The third sub-section delved into value capture and power relationships. After strategic coupling, there are interactions between regional actors and

GPNs actors. Over the course of these interactions, value can be created, enhanced and captured. For regional development, capturing value in the region is integral for regional development. Here, power is an important consideration as it provides.

The fourth sub-section discussed implications stemming from embeddedness and institution. These concepts influence all the processes from strategic coupling, to regional development, to value capture.

The last sub-section explored a distributional view of GPNs. The existing GPN discussions have a tendency to focus only on regional development as economic growth. Also, they only deal with firm and government actors. However, there is no guarantee that strategic coupling and value capture are connected to successful regional development *for all actors*. Various actors with different interests in the region may couple with certain GPN for different reasons, and this can affect them differently. As such, research needs to consider all relevant actors and how processes impact them separately.

The second section covered the formulation of a new order derived from the growth of regions in the global South, and how economic geography and GPNs deal with the global South. This section was comprised of three-sections.

The first sub-section addressed the rise of the global South. However, this did not imply growth in all developing countries. Rather, there are a few

main countries who are leading growth, and, as such, a new order has emerged. This order is distinguishable from prior North-South debates.

The second sub-section delved into how economic geography and GPN debates regard the global South. Most discussions in economic geography are anchored in the past with a western-centric view. Even though GPN research has paid some attention to the global South, it has tended to regard it as passive, poor and subordinate, missing internal regional dynamics in the global South. Recent development studies have embraced agency in these developing countries to a greater extent, but, it was argued, the GPN literature is still wanting in this regard.

The third sub-section argued that analyzing agricultural areas in the South with GPNs can be one way to address these limitations. Further, this can help to overcome limitations to GPN theorizing, in particular a focus on downstream activity.

Based on the literature reviewed thus far, this research continues by exploring the cinnamon industry in Karadeniya and Matale, Sri Lanka deploying a distributional view GPN framework. Sri Lanka is one of the main cinnamon exporting countries globally. It exports more than 90% of the cinnamon produced. Briefly, this means that all the actors who participate in the cinnamon industry in Sri Lanka are connected to a GPN, whether directly or indirectly. By focusing on interactions between actors, this research analyzes regional dynamics, actor agency, and regional

(distributional) development implications inclusive of embeddedness and power considerations. Adopting GPN tools, it explores changes to the targeted region's strategic coupling with the GPN and their value creation, enhancement and capture.

The next chapter introduces the research questions after providing additional research background. The research background section has into two sections. The first section introduces the cinnamon industry. This section is comprised of two sub-sections; the global cinnamon market and industry, and at the Sri Lankan cinnamon industry. Following this section, the regional background of the targeted area for the case study is introduced.

## **IV. Research Background**

### **1. The Cinnamon Industry**

While crops, and by extension their associated industries, like bananas, sugar cane, and coffee have attracted a lot of attention from various scholars (e.g. Lee et al., 2016; McGrath, 2013; Wilson, 2013; Brown, 2013), there are few studies about the cinnamon industry. Cinnamon is used in our everyday lives commonly as cinnamon powder, which is furnished in most cafés; a cappuccino, for example, requires cinnamon and there is of course the ubiquitous cinnamon roll. The fact that cinnamon is used as an ingredient in cosmetics and medicine is less commonly known.

In this section, before looking at how the cinnamon industry impacts regional development in Karadeniya and Matale, it will be addressed at the global and national scales. First, the cinnamon market at the global scale will be introduced briefly. Second, Sri Lanka's cinnamon industry will be covered. This section consists of two sub-sections, including historical contexts and the present situation of Sri Lanka's cinnamon industry.

#### **1) The Global Cinnamon Market**

According to FAO STAT (<http://www.fao.org/faostat/en/#data>), in 2016, 223,575 tons of cinnamon were produced globally and 160,271 tons were

exported to other countries, at a cost of USD\$ 482,348,000. Over the last 40 years, both production and export quantity have increased (Figure 3). While the production quantity was 36,320 tons in 1981, it increased to 223,575 tons in 2016, an almost seven-fold increase. Also, while the export quantity was 33,349 tons in 1981, it increased to 160,271 tons in 2016, an almost five-fold increase. Export value increased almost seven-fold, compared with 1981 when the export value was USD\$ 74,008,000.

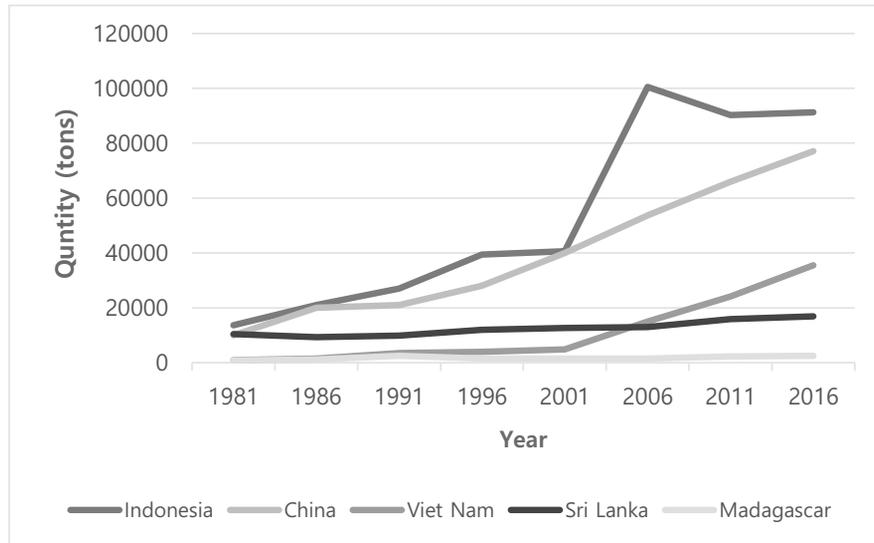


**Figure 3 Cinnamon Production and Export Quantity Trends**

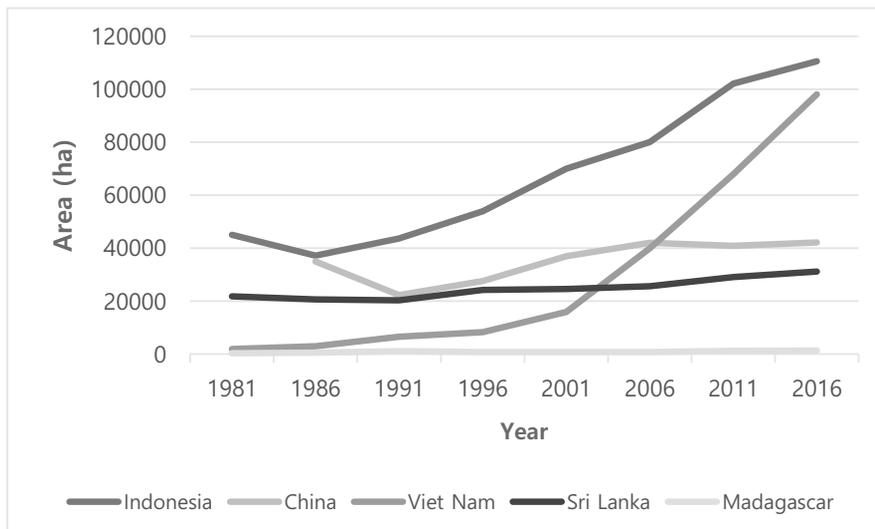
Source: FAO STAT

Globally, the primary cinnamon producers are Indonesia, China, Viet Nam, Sri Lanka and Madagascar. In 2016, Indonesia produced the most cinnamon, 91,300 tons, followed by China (77,055), Viet Nam (35,516), Sri Lanka (16,931) and Madagascar (2,460). The extent of cinnamon harvest area has grown with the production quantity. Indonesia had the largest extent of cinnamon harvest area, 110,551 ha. Viet Nam (98,106), China

(42,109), Sri Lanka (31,151) and Madagascar (1,404) followed. All of the countries except Madagascar have increased their production quantity and the extent of harvest areas (Figure 4 and 5).



**Figure 4 Cinnamon Production Quantity Trend: Main Countries**  
Source: FAO STAT



**Figure 5 Extent of Cinnamon Harvest Areas: Main Countries**  
Source: FAO STAT

**Table 1 Export Quantity of Cinnamon in 2016**

No.	Country	Export Quantity (tons)	Proportion (%)
1	Indonesia	48,900	30.51
2	China	42,414	26.46
3	Viet Nam	30,053	18.75
4	Sri Lanka	14,693	9.17
5	United Arab Emirates	6,599	4.12
6	Netherlands	3,717	2.32
7	Madagascar	2,716	1.69
8	United States of America	1,749	1.09
9	Germany	1,249	0.78
10	India	1,172	0.73

Source: FAO STAT

**Table 2 Export Value of Cinnamon in 2016**

No.	Country	Export Value (1000 US\$)	Proportion (%)
1	Sri Lanka	159,111	32.99
2	Indonesia	94,155	19.52
3	China	91,498	18.97
4	Viet Nam	63,596	13.18
5	Netherlands	10,712	2.22
6	United States of America	8,283	1.72
7	Germany	7,303	1.51
8	United Arab Emirates	6,994	1.45
9	France	6,153	1.28
10	India	4,791	0.99

Source: FAO STAT

In terms of export quantity, Indonesia, China, Viet Nam and Sri Lanka are the main countries (Table 1). In 2016, Indonesia exported 48,900 tons of cinnamon, which accounted for 30.51% of all the transacted cinnamon. China, Viet Nam, and Sri Lanka followed that. However, in terms of export value, Sri Lanka ranked first (Table 2). Even though Sri Lanka's export

quantity was 9.17% of all quantity exported, its *proportion* of export value was 32.99%.

**Table 3 Transaction Cost of Cinnamon per One Ton in 2016**

No.	Country	Transaction cost (1000 US\$)
1	Sri Lanka	10.83
2	China	2.16
3	Viet Nam	2.12
4	Indonesia	1.93

Source: Calculated from FAO STAT

The difference in transaction costs caused a mismatch between the export quantity and value. While most of the main export countries' cinnamon transaction cost was USD\$1,930~\$2,160 per one ton, Sri Lanka's transaction cost was \$10,830 per ton, which is almost five times more (Table 3).



**Figure 6 Sri Lankan Cinnamon (Left) and Cassia (Right)**

Source: Samarawickrema, 2015

The difference in the spices causes the difference in transaction costs. There are two main types of cinnamon. One is the Sri Lankan cinnamon (*Cinnamomum zeylanicum* Blume), also called Ceylon cinnamon or true cinnamon, and the other is Cassia (*Cinnamomum cassia*, *Cinnamomum*

*burmannii* and *Cinnamomum loureirii*), called Chinese cinnamon. While Sri Lankan cinnamon is derived from the *cinnamomum verum* tree, Cassia is derived from the *cinnamomum aromaticum* tree. True cinnamon is mainly grown in Sri Lanka, Madagascar and Seychelles. The Cassia version is grown in China, Indonesia, and Viet Nam. They differ in flavor, aroma, and appearance, and are processed differently (Figure 6). In the production process, true cinnamon takes more time and is more labor intensive, compared with the processing of Cassia (see Etherington, 2011; Webber, 2009; Samarawickrema, 2015; Piyasiri and Wijeratne, 2016). One of the reasons that true cinnamon and Cassia are not separated is that they were commonly traded under the same Harmonized System (HS) code of the World Customs Organization (WCO). However, the Sri Lankan Spice Council divided Ceylon cinnamon into a separate HS code, collaborating with the U.S. department of commerce and Sri Lankan Customs (Webber, 2009).

While exports are dominated by a few main countries, a larger number of countries import cinnamon. The main import countries are the USA, India, Bangladesh, and Mexico. In 2016, the USA imported 27,367 tons of cinnamon, which accounted for 17.02% of total cinnamon imports that year (Table 4). However, in terms of the import value, Mexico imported the most (Table 5). While Mexico accounted for only 4.76% of all the imported *quantity*, the import *value* accounted for 17.39%. This is primarily because

Mexico is the main consumer of Sri Lankan cinnamon, and, as previously mentioned, this cinnamon is comparatively more expensive than cinnamon from competing countries.

**Table 4 Import Quantity of Cinnamon in 2016**

No.	Country	Import Quantity (tons)	Proportion (%)
1	United States of America	27,367	17.02
2	India	25,673	15.97
3	Bangladesh	8,226	5.12
4	Mexico	7,650	4.76
5	Netherlands	5,233	3.25
6	Saudi Arabia	4,518	2.81
7	United Arab Emirates	4,464	2.78
8	Iraq	4,409	2.74
9	Germany	4,381	2.73
10	Iran (Islamic Republic of)	4,210	2.62

Source: FAO STAT

**Table 5 Import Value of Cinnamon in 2016**

No.	Country	Import Value (1000 US\$)	Proportion (%)
1	Mexico	84,534	17.39
2	United States of America	76,371	15.71
3	India	52,947	10.89
4	Bangladesh	16,553	3.41
5	Peru	14,335	2.95
6	Germany	13,271	2.73
7	Netherlands	10,519	2.16
8	Saudi Arabia	9,402	1.93
9	Colombia	8,906	1.83
10	United Kingdom	8,874	1.83

Source: FAO STAT

## **2) The Cinnamon Industry in Sri Lanka**

As introduced earlier, Sri Lankan Cinnamon is different than Cassia. From this point on, 'cinnamon' refers to the Sri Lankan true cinnamon variety, not the other cinnamon including Cassia. Other kinds of cinnamon will be referred to as Cassia.

Cinnamon is the dried bark of *Cinnamomum Zeylanicum*, or perennial Lauraceae. Sri Lanka is the main cinnamon producer and exporter. In this section, Sri Lanka's cinnamon industry will be explored including its cinnamon cultivating and exporting trends, its main importing countries, and its main cultivating area. Before that, historical antecedents of Sri Lanka's cinnamon industry will be introduced. This will be helpful for understanding the present context of the country's cinnamon industry.

### **(1) Historical Context**

The history of cinnamon goes back to B.C. 2800 when the word 'cinnamon' was first recorded in a Chinese document. Also, it can be found in the Bible. In ancient times, cinnamon was used for funerals or used when embalming mummies (Department of Export Agriculture (DEA), 2018).

From the 14th century, cinnamon was used widely in the West for various purposes, such as preventing meat rot and bacteria spread. At that time, the cinnamon trade was controlled by Arabian merchants. By keeping the source of cinnamon as a secret, they monopolized the cinnamon trade

and made huge profits. Demand for cinnamon helped to usher in the Age of Exploration from the 15<sup>th</sup> century (Francis, 2016; DEA, 2018).

In the 16<sup>th</sup> century, the Portuguese found the route to Sri Lanka. They tried to wrest control of the cinnamon trade from Arab merchants. At that time, wild cinnamon was grown in the forests in the southwest part of Sri Lanka, and Kotte, a kingdom of Sri Lanka, had the royal monopoly for cinnamon. Anyone who wanted to procure cinnamon had to buy it from the king. To get the monopoly for cinnamon, the Portuguese made an agreement with the king of Kotte. The content of the agreement was that the Portuguese would protect the kingdom of Kotte from Sitavaka, which was the other kingdom of Sri Lanka. This arrangement continued for more than one century and saw Sri Lanka increasingly come under the influence of Portugal (Schrikker, 2007).

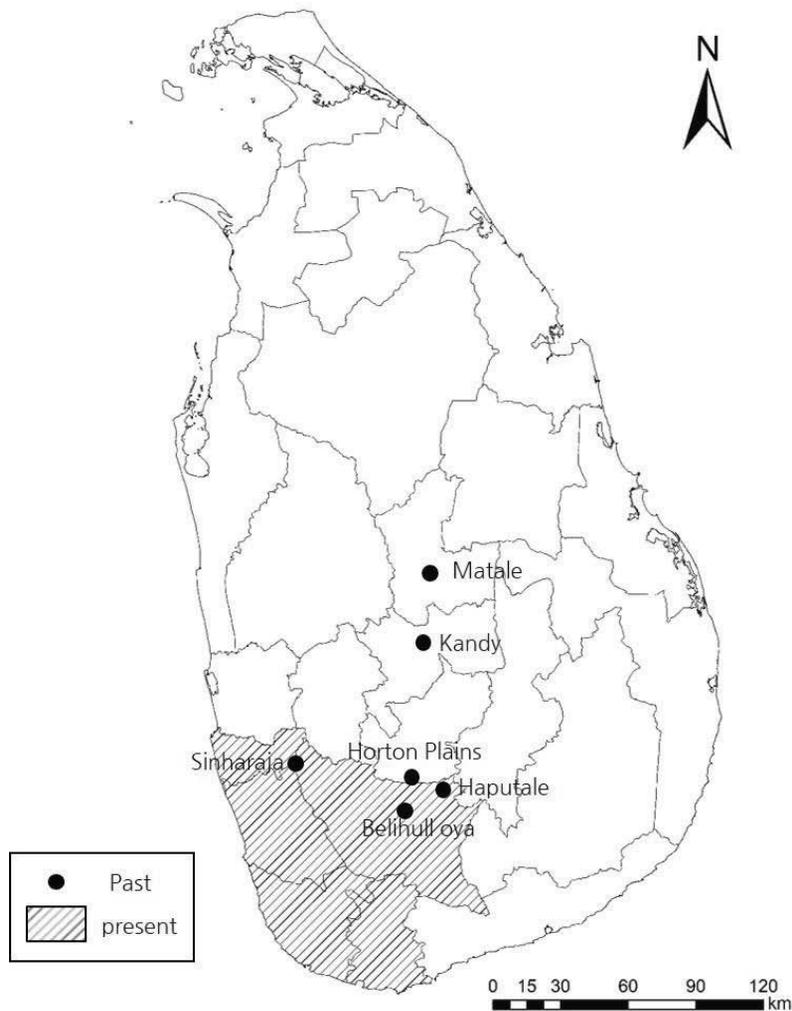
In the 17<sup>th</sup> century, the Dutch defeated the Portuguese and acquired exclusive rights for cinnamon. The DEA suggests that the 'Hanguranketha Agreement' is historical evidence for the cinnamon trade. This arrangement was signed on February 14<sup>th</sup>, 1766, between Sri Sri Keerthi Sri Rajasinghe the Sri Lankan king, and the Dutch government. The content of the agreement was that the Dutch would protect the king from outside invasion and in return would get control of cinnamon grown in certain forest areas (DEA, 2018).

However, in 1779, the Sinhalese king disturbed Dutch efforts to collect

cinnamon. Therefore, the Dutch tried to grow cinnamon on plantations and succeeded. After that, the Dutch burned all the wild cinnamon growing all across Sri Lanka in order to better control prices. By doing so, the Dutch gained a monopoly on cinnamon that lasted until the British colonized Sri Lanka. When Sri Lanka was colonized by the British, the importance of cinnamon was reduced because the British were more interested in coffee, tea and rubber, now also major exports of Sri Lanka (Chatoor and Ranatunga, 2017; Francis, 2016; Department of Export Agriculture).

The historical context of the cinnamon industry affects the present industry in two ways - its spatial distribution and peelers' social position. Concerning the spatial distribution, the Dutch's cinnamon plantation system influenced the movement of cinnamon growing areas. Originally, Cinnamon grew wild in the forests of central hill regions such as Kandy, Matale, Belihull oya, Haputale, Horton Plains and Sinharaja (Figure 7). However, the Dutch grew cinnamon near Colombo for the first time. Colombo was the capital until 1985 and it remains the central city of Sri Lanka. They started plantations in the region, now called cinnamon garden. This region was called 'Kurundu-kele' in the past and now it is called 'kurundu-watta'. 'Kurundu' means cinnamon in the Sinhala language, one of the official languages of Sri Lanka. This region is Colombo 7 area now, a living space located in central Colombo. Nowadays, cinnamon is cultivated near the coast from Negombo to Matara and some inland areas like Kalutara or

Ratnapura (Figure 7) (Chatoor and Ranatunga, 2017; Samarawickream, 2015).



**Figure 7 Spatial Distribution of Cinnamon Area - Past and Present**  
Source: Author created map using ArcGIS

Concerning the peelers' social position, there was a caste called 'salagama', which referred to cinnamon peelers. During the colonized period, the Portuguese and the Dutch used the salagama caste to process the cinnamon. Even though they were afforded a lot of privileges by the Dutch,

the native people's perception for them was negative. This has persisted until now. There is a social stigma attached to cinnamon peelers in modern Sri Lanka (Chatoor and Ranatunga, 2017; Samarawickream, 2015; FAO, 2018).

## (2) The Present

Cinnamon is one of the main income crops for Sri Lanka (Etherington, 2011). According to the 2017 annual report published by the Central Bank of Sri Lanka, Sri Lanka cultivates rice, tea, rubber, coconut and other export crops such as cinnamon, pepper, and ginger. While rice production is for domestic demand, other crops are cultivated for export (Shin, 2016).

**Table 6 Export Quantity of Main Crop, 2016**

No.	Items	Export Quantity (tons)
1	Tea	286,760
2	Flour, wheat	62,723
3	Coconuts, desiccated	49,202
4	Nuts, prepared (exc. groundnuts)	40,962
5	Bran, wheat	38,414
6	Coconuts	28,102
7	Cake, copra	22,852
8	Oil, coconut (copra)	22,679
9	Plantains and others	20,699
10	Beverages, non alcoholic	20,504
11	Lentils	19,870
12	Rubber natural dry	15,529
13	<b>Cinnamon (canella)</b>	<b>14,693</b>

Source: FAO STAT

Originally, cinnamon was classified as a minor export crop. However,

recently, cinnamon has grown into a major export crop. In 2016, the export quantity of cinnamon was 14,693 tons, which ranked 13<sup>th</sup> among all export crops (Table 6). It accounts for USD \$159,111,000, or second in export value (Table 7). In short, this means that the unit price of cinnamon is higher than for other crops such as tea, coconut and rubber. While the price per one ton of coconut is USD \$2,145.87, tea is USD \$4,365.08 and rubber is USD \$2,029.30, the price of cinnamon is UDS \$10,829.03 (Table 8).

**Table 7 Key Export Values for Sri Lanka, 2016**

No.	Items	Export Value (1000 US\$)
1	Tea	1,251,730
2	<b>Cinnamon (canella)</b>	<b>159,111</b>
3	Food prep nes	156,229
4	Coconuts, desiccated	105,581
5	Oil, coconut (copra)	93,981
6	Nuts, prepared (exc. groundnuts)	82,533
7	Pepper (piper spp.)	72,293
8	Tobacco products nes	62,865
9	Oil, essential nes	47,664
10	Food wastes	43,561

Source: FAO STAT

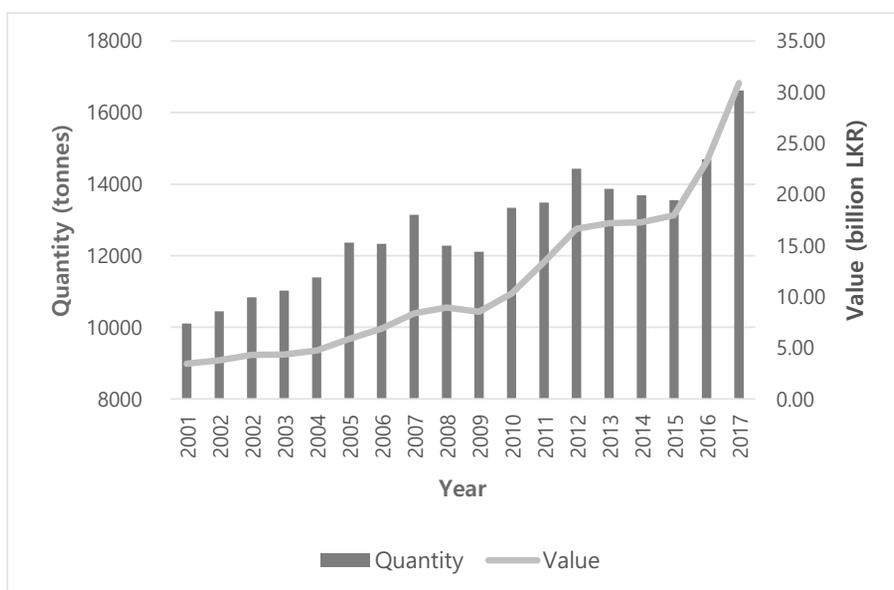
**Table 8 Export Price of Main Crop per One Ton, 2016**

No.	Items	Price per one tone (US\$)
1	<b>Cinnamon (canella)</b>	<b>10,829.03</b>
2	Tea	4,365.08
3	Coconuts, desiccated	2,145.87
4	Rubber natural dry	2,029.30

Source: FAO STAT

According to data provided by the Sri Lankan Export Development

Board (EDB)<sup>②</sup>, both export quantity and value of cinnamon has increased since 2001 (Figure 8). The rise in export value has been remarkable. Despite some stagnation in the rise of the export quantity in the wake of the 2008-2009 global financial crisis, which shrunk global imports, especially from Europe and America (Etherington, 2011), the export value increased over the longer term. As discussed previously, this is derived from the higher unit price.



**Figure 8 Cinnamon Trends: Export Quantity and Value**

Source: EDB

**Table 9 Cinnamon Exporting Price per One Kilogram Trend**

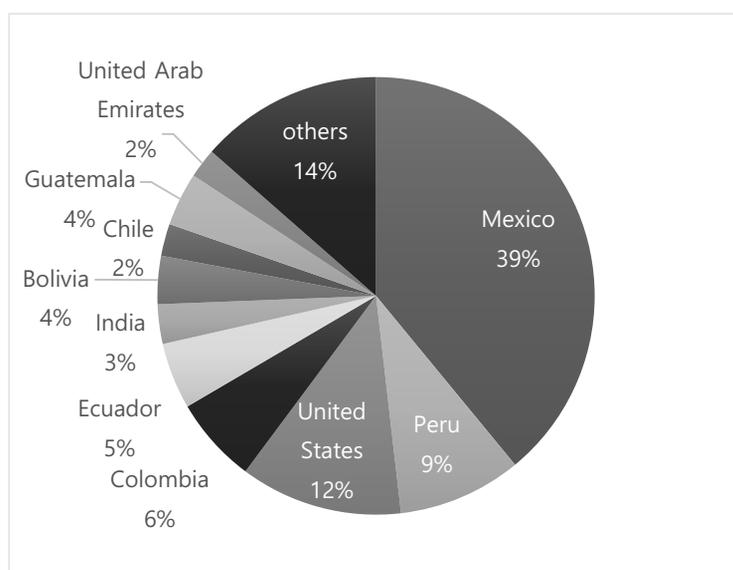
Year	Unit Price (LKR)	Year	Unit price (LKR)
2001	340.70	2010	772.69
2002	362.26	2011	993.25
2003	397.06	2012	1153.77

<sup>②</sup> The author purchased data about Sri Lanka cinnamon export destinations, and export quantity and value from the Information Technology Division, Sri Lankan Export Development Board, on 1 Aug, 2018.

<b>2004</b>	393.24	<b>2013</b>	1239.61
<b>2005</b>	414.87	<b>2014</b>	1261.34
<b>2006</b>	473.34	<b>2015</b>	1325.47
<b>2007</b>	557.67	<b>2016</b>	1577.44
<b>2008</b>	637.51	<b>2017</b>	1857.89
<b>2009</b>	728.78	<b>2018</b> (January to July)	1927.80

**Source: EDB**

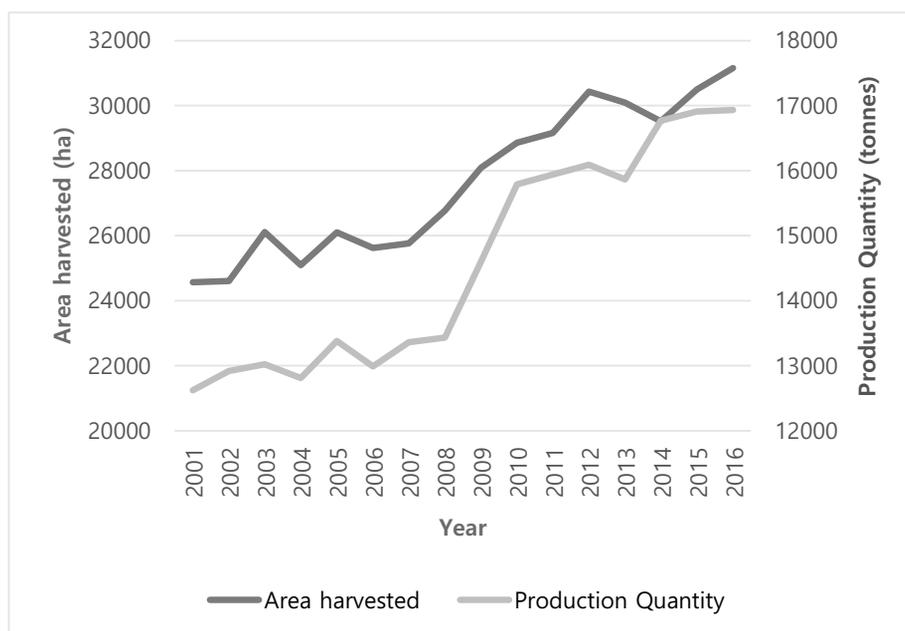
The unit price of cinnamon has increased remarkably (Table 9). One kilogram of cinnamon was 340.70 Sri Lankan Rupees (LKR) in 2001. However, it increased to LKR 1927.80, almost six-fold. The Institute of Policy Studies, Sri Lanka (IPS) (2017) suggests the appearance of new markets as a main cause for the price rise. In 2007, 75 countries imported cinnamon from Sri Lanka, compared to 2001, when 51 countries imported cinnamon. Until 2010, the number of import countries remained under 60. However, from 2011, the number exceeded 60 and, in 2016, it exceeded 70.



**Figure 9 Main Cinnamon Import Countries in 2017**

**Source: EDB**

In 2017, Mexico, Peru and the USA were the main buyers of Sri Lankan cinnamon (Figure 9). Among them, Mexico imported the most cinnamon. Mexico has imported 40% to 50% of exported cinnamon from Sri Lanka since 2001. Encouraged by the increase in cinnamon exports and price, cinnamon cultivation has increased steadily since 2001 (Figure 10).

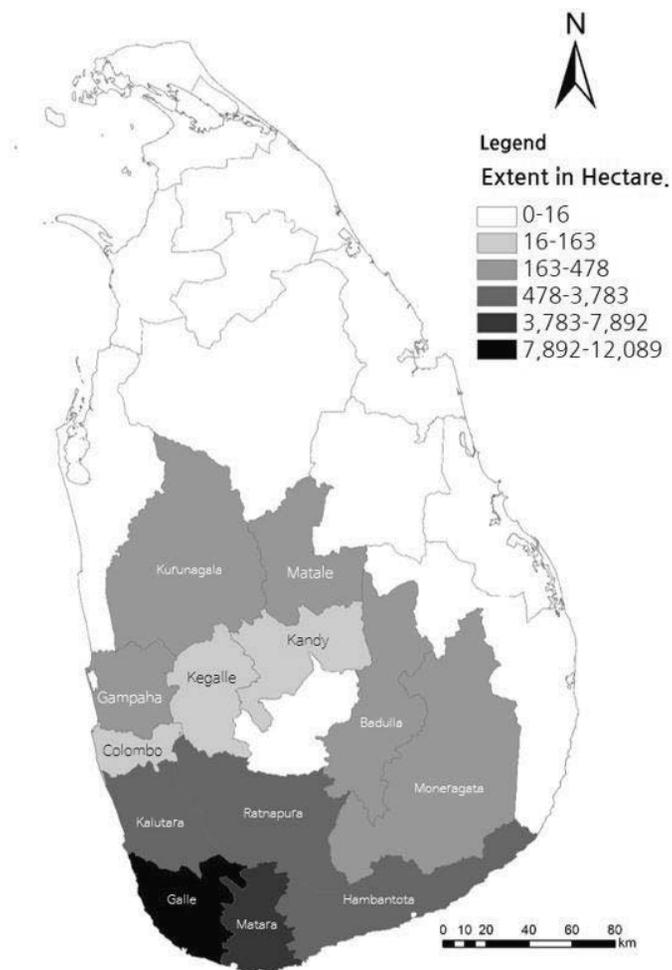


**Figure 10 Extent of Cinnamon Harvest Area and Production Quantity**  
Source: FAO STAT

Most of the county’s cinnamon is cultivated in the southern coastal area in places like Galle, Matara district (Figure 11). The extent of cinnamon cultivation area in Sri Lanka was 31,151 ha in 2016 (FAO STAT). According to the District Statistical Hand Book provided by Department of Census and Statistics (DCS) (2018), Sri Lanka, Galle district accounts for about 40% of the cultivated area, which is 12,089 ha. The Matara district

has 7,805 ha, which accounts for about 25%.

Small holders cultivate most of the cinnamon, about 80% (Etherington, 2011). Most of the farmers own 0.5-1.5 acres of land. Approximately 350,000 households in the Galle, Matara, Hambantota, and Ratnapura regions earn their living through the cinnamon industry (Samarawickream, 2015).

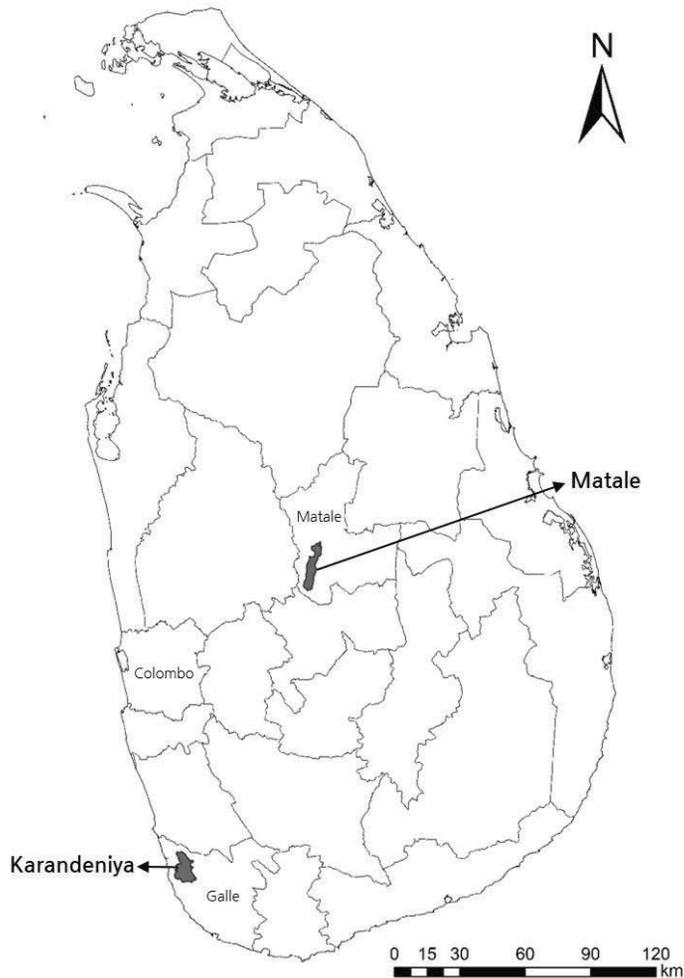


**Figure 11 Extent of Cinnamon Cultivation Area per District, 2016**  
Source: Author created map using ArcGIS; data collected from the District Statistical Hand Book provided by Sri Lanka's Department of Census and Statistics.

## 2. Introduction of Regions Targeted for Analysis

In this research, the targeted regions are Karadeniya and Matale, Sri Lanka.

In this section, basic information about the targeted regions will be addressed, briefly, focusing on cinnamon cultivation.



**Figure 12 The Location of Karadeniya and Matale**

Source: Author created map using ArcGIS

## **1) Karadeniya**

Karadeniya is located in the South-western part of Sri Lanka, in the Galle district (Figure 12). Karadeniya is the most representative cinnamon cultivating region in Sri Lanka. According to the District Statistical Hand Book, Galle, provided by DSC, the extent of cultivation in Karadeniya is 8,800 ha. 3,989 ha was dedicated to cinnamon cultivation in 2016, almost half of the Karadeniya region. It accounts for 13% of all the cinnamon cultivating land in Sri Lanka, and represents the largest extent of cinnamon cultivating land in Sri Lanka by percentage. The extent of cinnamon cultivation in Karadeniya increased from 3,857.3 ha in 2009 to 4,034 ha in 2017. There are other crops cultivated in Karadeniya such as rice, tea, coconut and rubber. However, the extent for rice cultivation was 1,536 ha, tea was 319 ha, rubber was 70ha, and coconut was 367 ha in 2017.

The population of Karadeniya was 65,437, in 2017 and there were 17,321 households in 2012. In the Galle district, most of the people work in the agricultural, forestry and fishing industries, which account for 26.1% (DSC, 2018).

## **2) Matale**

Matale is located in the central part of Sri Lanka, in the Matale district (Figure 12). Matale is not popular for cinnamon cultivation. According to the District Statistical Hand Book, Matale, provided by DSC, Matale is

7,000 ha, but only 36.7 ha was used for cinnamon cultivation in 2016. It accounts for only 0.12% of all the cinnamon cultivating land in Sri Lanka. The extent for cinnamon cultivation was 21 ha in 2009. It increased to 55.2 ha in 2013. However, it decreased to 36.7 in 2015. In Matale, cinnamon is not popular for cultivation. For example, while cinnamon cultivation remained at 36.7 ha in 2017, the extent of pepper cultivation was 1,444.3 ha, rice was 457.5 ha and coffee was 118.9 ha. There are no data about tea, coconut and rubber produced at Matale.

The population of Matale was 78,489 in 2016. Also, there were 18,731 households as of 2012. In the Matale district, most of the people work in the agricultural, forestry and fishing industries, which account for 37.6% (DSC, 2018).

## **V. Case Study Comprising the Research**

This chapter introduces the case study focusing on the cinnamon industry and regional development in the Karadeniya and Matale region of Sri Lanka through the lens of GPN framework. It includes (1) three research questions based on the previously discussed theoretical background; (2) methodology, methods deployed for the data acquisition, and data; (3) analysis of results from the collected data; and (4) a discussion section.

### **1. Research Questions**

This research stems from the critical assessment that even though a new order exists in the global economy, and that simplistically dividing the world into the North and South is no longer valid, most economic geographical debates and the research that has ensued has had limited success in capturing this reality. Examining economic processes in developing country regions vis an *a priori* lens colored by poverty and passivity cannot capture regional autonomy, local motivations, decision making, and actor agency (Williams, 2014). Further, this research is motivated by the fact that the bulk of GPN studies focus on downstream manufacturing activity. Addressing agriculture and upstream activity in the global South can help to fill perceived voids in the literature. Further, the introduction of the distributional view of regional growth helps to better unpack actor level

impacts from strategic (de)coupling and recoupling, adding nuance to the standard metric of economic growth measured as the regional level.

Therefore, the present research deploys the GPN framework in an analysis of the cinnamon industry in the Karadeniya and Matale regions of Sri Lanka. The main reason to adopt the GPN approach is that it considers ‘regions’ and GPN actor’s interactions with it, aspects not covered in existing GCC and GVC work. GPNs analyze regional development considering both internal factors and external flows. Therefore, concepts core to GPN theorizing are applicable to a study of dynamic agricultural regions in developing countries. This, as was argued, is especially true for the cinnamon industry of Kraradeniya and Matale in that more than 90% of cinnamon produced in Sri Lanka is exported to other countries; thus, all of the actors who participate in the cinnamon industry are connected to GPN directly or indirectly.

In this research, strategic (de)(re)coupling, value creation, enhancement, and capture, as well as embeddedness and power considerations for regional development are actively deployed. Furthermore, the distributional view of GPNs, to include time and spatial considerations, is used to address limitations unearthed in previous research. Process taking place after value capture are therefore covered. Based on these insights, this study raises three major research questions (RQs). All of the RQs are split into two sub RQs.

RQ1 explores actor participation and interaction in the cinnamon

production and distribution processes in Sri Lanka, and their ability to create, enhance and capture value. Here, ‘power’, which influences value capture, is explored.

**RQ1(a)** Who are the main actors participating in processes of production and distribution in the cinnamon industry in Sri Lanka and how do they interact with other actors?

**RQ1(b)** How much value does each actor create, enhance and capture through the cinnamon production and distribution processes?

Main actors who participate in the cinnamon industry (RQ 1(a)) are explored via participant observation and in-depth semi-structured interviews. The extent of value creation, enhancement and capture (RQ 1(b)) is explored through informant interview input from various actors including farmers, peelers, collectors, exporters and government officials. In the interviews, questions about relationships and interactions with other actors were mainly asked. This will be discussed further in the methodology section.

Via the concepts of strategic coupling, recoupling and decoupling, RQ2 explores the spatial (locational) aspect of each main actor covered in RQ1(a) and any changes (e.g. spatial switching) that have taken place as time has passed. Spatial switching refers to ‘...the substitutability of processes within

the same geographical scales' (Yeung, 2015, p.291). Here, the Karandeniya and Matale regions are compared.

**RQ2(a)** How are actors and actor relationships spatially situated in Karandeniya? If there is evidence of spatial switching, why?

**RQ2(b)** How are actors and actor relationships spatially situated in Matale? If there is evidence of spatial switching, why?

To identify the spatiality of actors in each region (both RQ 2(a) and (b)), interview questions that involve the scope of movement and the actors whom they usually interact with were asked. Also, questions comparing the current situation to the past were asked. If there were some changes, respondents were asked questions about motivations for the changes.

RQ3 builds upon RQ2. As suggested in the literature review, regional actors may have different motivations to strategically couple, decouple, and recouple, and regions may be affected differently vis-à-vis these processes. In the target regions for analyses, both regions may approach strategic decoupling and recoupling processes in different ways. Therefore, RQ3 seeks to ascertain the extent of the region's strategic decoupling and recoupling efforts and influences on other actors within the region, deploying the distributional view. Furthermore, reasons for each region's different trajectories are explored.

**RQ3(a)** How do the region's strategic decoupling and recoupling processes influence regional actors in each region?

**RQ3(b)** What influences the different development trajectories of each region?

In order to examine the influence of each region's strategic decoupling and recoupling processes (RQ3(a)), informants were asked questions regarding each actor's behavior and any influence derived from the region's strategic (de)(re)coupling. Also, factors influencing decisions and different regional development trajectories (RQ3(b)) are captured contextually via free response interview questions. In the end, the goal is to derive a picture of overall impacts to regional development in these target regions.

## **2. Methodology and Data**

This research deploys a qualitative methodology, which is, “to describe, explore or explain social phenomena” (Stewart et al., 2014, p. 60). To collect and generate data, a researcher usually goes to a particular field site and investigates the phenomena under study in natural settings. This helps to gather ample and in-depth information that cannot generally be caught through static data or statistics, thus providing insight into complex social processes (Stewart et al., 2014; Winchester and Rofe, 2010). Because this research focuses on actors who participate in the cinnamon industry in Sri Lanka and their experiences and interactions with other actors in their everyday life, qualitative methods were deemed most appropriate.

Field work was conducted during from 15 July to 10 August, 2018, in the Karadeniya and Matele regions. Before undertaking field work, the researcher had visited the Karadeniya region twice for volunteer work and had established some minimum networks in Sri Lanka related to cinnamon production. Also, the researcher had some regional background information pertaining to that region. All of the research was designed with this contextual knowledge in mind, and modified when necessary in the field as interviews progressed.

Interviewing was used as a main technique for data collection and participant observation as a complementary method. In the following subsection, the relevance of each technique and the way they are employed are

addressed.

### **(1) Interview**

Interviews are a way of collecting data through which participants' various opinions or beliefs can be gathered in the, "...spoken exchange of information" (Dunn, 2010, p. 149). Dunn (2010, p. 150) argues that, "Interviews are an excellent method of gaining access to information about events, opinions and experiences." Using questions that require participant open response, researchers can get broader opinions from participants in their own words (Dunn, 2010). Concerning this point, because this research seeks to capture the dynamics of each actor's behavior and their relationships with other actors, interviews were judged to be superior to other data acquisition techniques such as questionnaire distribution or mere observation.

This research used semi-structured in-depth interviews. There are three main types of interviews, namely structured interview, semi-structured interview, and unstructured interview. Among them, the use of semi-structured interviews is commonly regarded as a useful conjoining of the structured and unstructured interview. In a semi-structured interview, for example, there is an interview guide that consists of main questions, much as in a structured interview. However, the interview is not limited to those questions and may draw more openly from information related to the

research topic ventured by informants (Dunn, 2010). In this research, the main questions were prepared in advance based on the literature review and local contextualization as an interview guide. However, if some interesting answers provided potential insight for the research, the interview proceeded focusing from that point in a less structure fashion.

The following questions are the main questions that served as an interview guide.

#### (1) Basic information

- Informant: Gender, age, birthplace, education level, work experience
- Only to farmers
  - : The extent of owned land, means to acquire land, the reason to cultivate cinnamon, job except farming.
- Only to collectors and exporting firms
  - : Location of firm, the number of employees, foundation year, start year of exporting (Only to exporting firm).
- Only to government
  - : The location of the organization, foundation year, the purpose of the organization.

1) Questions related to RQ1. (Actors who participate in the cinnamon

industry and their extent of value creation, enhancement and capture):

- 1) “What do you do in the cinnamon industry?” or “What does your firm do in the cinnamon industry?” or “What does your organization do in the cinnamon industry?”
- 2) “With whom do you usually meet and interact when you work?”
- 3) “Would you recommend this job to your children? If not, why? If they could earn more money through it, would you recommend this job?”
- 4) - Only to farmers: “When you sell cinnamon to a collector, what are the selection standards?”
  - Only to collectors: “When your firm purchases cinnamon from farmers, what is the selection standard?” / “When your firm sells cinnamon to an exporting firm or firms, what is the selection standard?”
  - Only to exporters: “When you purchase cinnamon from collectors, what is the selection standard?” / “Do you want to purchase cinnamon directly from farmers?”
  - Only to peelers: “How do you decide where to work?”
- 5) “Among the actors who participate in the cinnamon industry, who has the most important role?” / “In your opinion, who gets the most profit among farmers, peelers, collectors and exporting firms?”

The first question was asked to ascertain each actor’s role in the

cinnamon industry, which is connected to RQ1(a). The second and fifth questions were asked to capture actor interaction, which is also connected to RQ1(a).

The third, fourth and sixth questions are connected to RQ1(b). These questions are proxies for asking how much money they earn, which is regarded as a sensitive question. These questions were used to establish the extent of value capture.

2) Questions related to the RQ2. (Each actor's spatiality, any change and motivation to change):

- 1) - Only to farmers: "Why do you cultivate cinnamon in this region?"
  - Only to peelers: "Why do you work in this region?"
  - Only to collectors and exporting firms: "Why did your firm choose this location for business?"
- 2) - Only to farmers and peelers: "Please talk about your daily work and movement."
  - Only to collectors and exporting firms: "Please talk about your firm's scope of movement."
- 3) "Where is your main trader located?"
- 4) "Is there any change compared to the period when your parents cultivated cinnamon?"
- 5) - Only to two exporting firms in Karandeniya: "Why did you start to

export directly and how did you do that?”

- 6) - Only to exporting firms: “To which countries do you export cinnamon?”, “How long have you exported cinnamon there and how did you make a network with those places?”

The first, second, third and sixth questions were asked to capture spatial aspects associated with the actors’ economic activity. The fourth questions were asked to consider the time dimension. If interviewees answered that there are changes compared with the past, the other questions were devised to find out their motivation for, and the processes associated with, change.

- 3) Questions related to RQ3(a). (The influence of the region’s strategic coupling, decoupling and recoupling on each actor):

1) - Actors in Karandeniya “Collector in this region started to sell cinnamon abroad directly. Has it affected you? Is there any change compared with the past?”

2) - Actors in Matale “How does the direct transaction with firms affect you? Is there any change compared with the past?”

These questions were derived based on the distributional view of GPNs. Then try to catch processes unfolding after strategic recoupling and value

capture.

#### 4) Extra questions

- 1) How do you see the future of the Sri Lanka cinnamon industry?
- 2) What is the biggest problem for the Sri Lankan cinnamon industry?
- 3) To promote the Sri Lankan cinnamon industry, what should be done?
- 4) What do you think about the shortage of peelers? What are some possible solutions?
- 5) What do you think about the growth of China and Indonesia in the global cinnamon market?

These questions are not directly connected to the RQs per say. However, the first to third questions attempt to capture the perception of each actor concerning the cinnamon industry, overall, more akin to the new order of the global economy referenced previously. Also, through the fourth and fifth questions it was possible to ascertain any perceived potential actor or institutional assistance for the longer term industry as a whole.

As previously stated, these questions functioned as an interview guide. Therefore, depending on the given actor interviewed, some questions were necessarily skipped and other questions suggested.

## **(2) Data**

Interviews with 23 actors were conducted (Table 10). The main interviewees were actors who participate in the cinnamon industry in the Karadeniya and Matale regions in Sri Lanka. These included not only the actors who participate in the production and distribution processes such as farmers, peelers, collectors and exporting firms, but also non-firm actors who participate in the process indirectly such as government officers. Government informants operate at the national level and are not associated with the targeted regions alone.

The number of participants are not regulated in qualitative research because qualitative research places more emphasis on the abundance of information and its validity than representativeness (Sratford and Bradshaw, 2010). Therefore, in this research, interviews with farmers and peelers in each region were conducted until the data content reached a saturation point at which time no new information was forthcoming. Concerning the exporting firms, there are only two exporting firms located in Karadeniya. Only one exporting firm transacts with farmers in the Matale region and influences the industry there proportionately. Therefore, three exporting firms in the two regions became interview targets. Also, concerning the government, officials in the Department of Export Agriculture and Cinnamon Research Institute were interviewed. The Department of Exporting Agriculture (DEA) is the main department involved in exporting

crops such as cinnamon, pepper and cardamom in Sri Lanka. In addition, the Cinnamon Research Station is one of the sub divisions of the DEA and it implements research only focusing on cinnamon in Sri Lanka. Concerning the collectors, only two people in the Karandeniya region were interviewed and most of the collectors avoid revealing their business secrets. There is no collector in the Matele region for reasons that will be discussed in the results section. Finally, there were time and budget restrictions that limited the overall data acquisition effort. Table 10 furnishes a descriptive summary of informants.

**Table 10 List of Interview Participants (Gender, Age)**

<b>Code Number</b>	<b>Farmer</b>	<b>Peeler</b>	<b>Collector</b>	<b>Exporting Firm</b>	<b>Government</b>
<b>1</b>	M, 70		M, 40	M, 30	F, 40
<b>2</b>	M, 60		M, 30	M, 50	M, 40
<b>3</b>	M, 50			M, ?	
<b>4</b>	M, 30				
<b>5</b>	M, 60				
<b>6</b>	M, 50				
<b>7</b>	M, 30	F, 50			
<b>8</b>	M, 40	F, 10			
<b>9</b>	F, 90	M, 30			
<b>10</b>	F, 40				
<b>11</b>	M, 40				
<b>12</b>	M, 60				
<b>13</b>	M, 50				

When accessing the farmers and peelers, snowball sampling was used.. Starting with one farmer or peeler with whom rapport had been established with the researcher, additional recommendations for potential interviewees were received and interviews proceeded from there. There is a tendency in

qualitative research to focus on marginal groups because of the difficulties associated with accessing the elite (Scheyvens et al., 2014). To access input from exporting firms and government officers, regarded as elite in the society, the support of, and introductions from, a local professor and local secondary school principal were immensely helpful and integral to the data collection effort. The researcher is grateful for their assistance.

Interview lengths varied from 20 minutes to 2 hours depending on the role of the informant and the direction and depth of the open-ended responses. Most of the interviews were done at the workplace or home (where some processes and collecting may occur) in order to observe behavior in an everyday life setting. The language used for interviews was different depending on the actor interviewed. English was used when interviewing exporting firms, government officials and some collectors with English proficiency, and these interviews were conducted by the author. However, for other actors such as farmers, peelers and some collectors, the Sinhala language, one of the official languages in Sri Lanka, was used.

When conducting interview in the Sinhala language, aid from local research assistants was integral and immensely appreciated. The assistants are graduate school or university undergraduate students proficient in the Sinhala Language and English. To prevent the danger of information being omitted in the process of translating (McLennan, 2014), there was time to talk about the nature and goals of this research and the research questions

with the research assistants prior to conducting interview. Furthermore, interviews were recorded with the permission of the informants, and the content double-checked for content and accuracy.

For all interviews, audio recording and/or note-taking, regarded as main recoding techniques (Dunn, 2015), was done. However, in cases where the interviewee did not agree to have the interview recorded, only note-taking was utilized. In this research, one informant did not agree to a recording. There was no difference in the interview questions and most of the content in the interview content was annotated in note form. Also, to prevent the loss of data, interview content was electronically saved immediately after the interview completion for review at a later time.

In order to observe research ethnics, interview questions were verified with research assistants and a local person with community rapport before the field work was conducted. During this process, any questions deemed sensitive to participants were excluded or substituted for other more acceptable questions. Furthermore, interviewees were informed in advance that they could skip any questions that they did not want to answer.

For data analysis, open coding in a matrix was used. Answers to questions from each respondent were loaded into a spreadsheet. Transcribed content were organized by theme and key themes extracted.

### **(3) Participant Observation**

To complement interviews, participant observation was also conducted. One of the goals of observation is getting complementary evidence. Through observation, extra information, which cannot be gleaned through interviews, can be gathered. While qualitative research pursues an engagement with participant's everyday life, interviews have this limitation (Kearns, 2010). Kearns argues, "...no matter how much we are able to put people at ease before and during an interview, its structured format often removes the research from the "flow" of everyday life in both in time and space" (2010, p. 318). Therefore, to catch each actor's behavior and interaction with other actors in their everyday life, one of the principle aims of this research, participant observation was integral.

"Participating observation for a geographer involves strategically placing oneself in situations in which systematic understanding of place are most likely to arise" (Kearn, 2010, p.318). Therefore, most of the interviews were intentionally conducted in the workplace where cinnamon processing and distributing are done, or at home where the participants live their everyday life. By remaining in the place where the interviews were conducted both prior to and after many interviews, their behavior and their interactions with others were observed. Participant observation helped in particular to grasp the power relationships characterizing network actor participants. This helped to round out insights ventured during interviews.

In this respect, observation was undertaken from the position of 'observer-as-participant'. Kearn (2010) argues that the researchers need to escape from a participant/non-participant dichotomy. He argues that a non-participant situation is impossible because the researcher potentially influences the participant's behavior. Therefore, Gold's (1958) classification is introduced. There are four groups such as complete observer, observer-as-participant, participant-as-observer and complete participant. For the observer-as-participant, there is a danger of misjudging the situation because of a short period of observation (Gold, 1958). In this research, all of the things observed were reconciled with the research assistants with backgrounds in the industry and culture, and independently confirmed.

### **3. Results and Discussions**

This section presents results from analyses of the data acquired through interviews and participant observations during field work conducted in the targeted regions in Sri Lanka. The analyses are presented in the orders of the RQs, and include directly quoted responses from informants, photos and graphs. To supplement any gap in informant interviews and participant observation, information from reports published by the IPS and the UNIDO that cover Sri Lanka's cinnamon industry is also used.

**RQ1(a)** Who are the main actors participating in processes of production and distribution in the cinnamon industry in Sri Lanka and how do they interact with other actors?

There are four main actors participating in the cinnamon industry - farmers, peelers, collectors and exporting firms. Each actor's roles and their interaction with other actors in the industry will be addressed in the order of the value chain segment associated with the industry. Also, analyses pertaining to RQ1 are based on data from the Karadeniya region, because it is the traditional seat of the cinnamon industry in Sri Lanka.

#### **(1) Farmer and Peeler**

Farmers and peelers can be analyzed together because they are closely

connected. Their main task is producing cinnamon. Many of the farmers are also peelers.

The farmer's main role is cultivating cinnamon. After planting the cinnamon seedlings, it takes two to three years for the first harvest. The tree itself has bunches of several stems grown from a single root (Figure 13). To cultivate cinnamon, farmers fertilize, weed, and clean the surrounding land. Except one farmer, all of the farmers in Karandeniya responded that they learned about cinnamon cultivation from their parents.



**Figure 13 Cinnamon Trees**

Source: Jul. 17, 2018, by author

Harvest season is about six months, running from May to December, in the Karandeniya area. During the harvest season, farmers usually hire peelers for processing and sometimes participate in processing themselves. During processing, peelers go to the cultivating field early in the morning and harvest cinnamon in the form of a stem. Usually, one tree can be

harvested once or twice a year. The harvested stems are brought to a farmer's house or an open space near the field and processed. The harvested stems must be processed the same day because the moisture in the stem that facilitates the peeling increasingly dissipates over time. The overall processing procedure is depicted in Figure 14.



1. Removing branches and leaves form harvested sticks



2. Scrapping the outer skin



3. Rubbing the bark with a brass rod to loosen bark from the hard wood



4. Peeling the bark, part by part, with a special knife



5. Drying peeled bark under the sun for a few hours until it starts rolling.



6. Connecting pieces of bark together and making a pipe like structure (called a quill). The standard length of the tube is 42 inches.



7. Filling the hollow of the tube with small pieces of stem



8. In-door drying for about 4-7 days.

### **Figure 14 The Process of Producing Cinnamon**

**Source of Content: DEA**

**Source of Pictures: Jul. 18, 23, 2018, by author**

During the cinnamon production process, most of the peelers work in a group consisting of family members or other from the neighborhood. The most common group observed during the field work consisted of three members. Both women and men work on the team. In addition, there is a division of labor, and tasks are divided between each member. Peeling the bark requires skill. Thus, it is done by a group member with the requisite skill and experience. Usually there is one such skilled person per group. During processing, group members usually work about 14 to 15 hours (from 6~7 am to 9-10 pm) a day. If they cannot finish processing all of the harvested crops, they work more than 15 hours to finish. All of the peelers in the Karandeniya region responded that they learned the peeling skill from their parents, all of whom were farmers. There is a symbiotic relationship between the farmers and peelers; cooperation is considered important and both recognize that only by working together in teams can the cinnamon get processed. One of the peelers, for example, responded that ‘humanity’ and

‘closeness’ with farmers are important considerations when they choose a workplace.

After processing the cinnamon, farmers sell their cinnamon to a local collector. Some farmers go to a collector personally and sell their cinnamon directly. In some cases, the reverse is true, and a collector will come to the farmer and take the cinnamon. During farmer interviews, 60% of informants said that they sell their cinnamon to the collector who offers the highest price. However, in some cases, the farmer sells their cinnamon to the collector from whom they can get loan. In characterizing the relationship between farmers and collectors, to borrow the IPS’s words (2017, p. 24), farmers are “price takers” and collectors are “price makers”.

When farmers sell the cinnamon, they normally earn between 2,000 and 2,200 LKR per kilogram. According to information about producer prices provided weekly by the DEA, the cinnamon price at the farm last July and August, 2018, was 2,261 LKR/kg on average for all grades, and between 2,100 and 2,200 LKR/kg for grades C4~5 grade, the most common grades in the Galle district. Farmers give one third of the price received to peelers and take two thirds for themselves. Some farmers may pay an additional 20 LKR per 1kg to peelers. One peeler informant in a group of three people answered that they usually process 6 kg of cinnamon per day. In these cases, the group can earn 4,000 LKR per day on the basic of 2,000 LKR per 1kg of cinnamon processed. This wage is divided among the group

members. The informant further ventured that normally the person with the peeling skill takes 2,000 LKR. Other team members harvesting cinnamon and carrying it to processing sites take 1,500 LKR. Other members doing simpler tasks take 500 LKR. One peeler who works alone without any group members said that he processes about 3.5 kg per day, earning about 2,300 LKR when 1 kg of cinnamon sells for 2,000 LKR

Farmer informants said that they harvest between 250 and 400 kg of cinnamon per acre per year.<sup>③</sup> It means that a farmer with 1 acre of land producing 350 kg/acre can earn about 470,000 LKR in one year. However, the cost associated with in planting and cultivation processes is 669 LKR/kg per one year according to the IPS report. In turn, this means that if the farmer sells their cinnamon at 2,000 LKR/kg, they can earn a net profit of about 660 LKR/kg. If they own one acre of land producing 350 kg/acre, they can get about 231,000 LKR per year.<sup>④</sup>

## **(2) Collector**

A collector's main role is buying cinnamon from farmers and reselling it to exporting firms. If farmers bring their processed cinnamon in bales, collectors check the weight by scale, the humidity using a machine, and the

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<sup>③</sup> According to the Samarawickream (2015), the average productivity of Sri Lanka is 450kg/ha, which is about 180kg/acre.

<sup>④</sup> According to the Department of Census and Statistics (2017), the average household income was 746,844LKR in 2016. Also, the household per capita income for 2016 was 135,684 LKR. While the average household incomes of the poorest 20% and 40% were 178,116LKR and 269,076LKR respectively, the average household income of the middle 60% was 552,948LKR.

grade by eye (Figure 15). If the humidity is higher than a certain value, there is danger of mold forming inside the bale and it weighs more. The humidity present in cinnamon depends on the quality of the in-door drying (refer to Figure 14). Therefore, if the humidity is high, farmers receive a low price.



**Figure 15 The Process of Grading Cinnamon**

Source: Jul. 18, 2018, by author

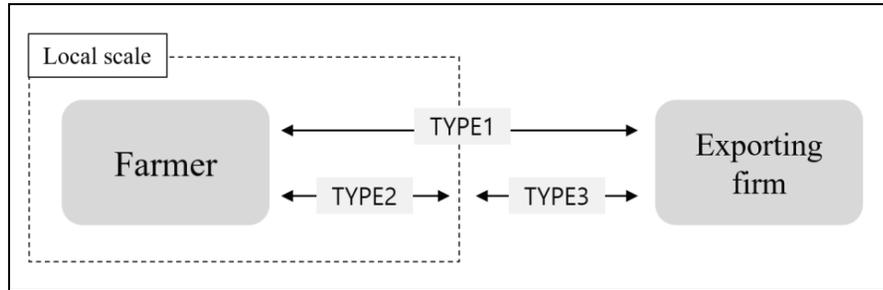
When collectors grade the cinnamon, the smaller the diameter of the stick, the higher the value of the cinnamon. There are several grades: Alba, the highest grade; C5~C1, the most common; and M1~M5, the lowest grades (Table 11). Grading by eye is an important skill for collectors because accurate grading ensures a better profit margin. After grading and checking the humidity and weight, they set a price for the cinnamon. At this time, they deduct money for the weight of threads and fragments. As mentioned previously, the collector acts as a price maker during relations with farmers.

**Table 1 Cinnamon Grades**

<b>Grade</b>	<b>Diameter (max. mm)</b>	<b>Min. no. of 42" long quills per kg</b>	<b>% rough quills per kg</b>
<b>Alba</b>	6	45	None
<b>C5 Sp</b>	6	35	10
<b>C5</b>	10	31	10
<b>C4</b>	13	24	10
<b>C3</b>	16	22	15
<b>C2</b>	17	20	20
<b>C1</b>	19	18	25
<b>M5</b>	16	22	50
<b>M4</b>	16	22	60
<b>M3</b>	19	18	60
<b>H1</b>	23	11	25
<b>H2</b>	25	9	40
<b>H3</b>	38	7	60

**Source: DEA**

Based on informant interviews, according to the roles and relationships between exporting firms, collectors can be classified into three types (Figure 16). Type 1 is a ‘classic collector’. One collector respondent is a ‘classic collector’. This respondent answered that the only thing his firm does is classify the cinnamon according to grade. They buy cinnamon from farmers, classify it, and sell it to the exporting firm. However, only one exporting firm relationship exists.



**Figure 16 Types of Collectors**

Source: Generated from author's data

Judging from collector and exporting firm respondents, some collectors are Type 2, or 'farmer-collector intermediaries'. This type of collector does not trade directly with an exporting firm. Rather, they buy cinnamon from farmers and sell it to other collectors. They usually act at the local scale. One exporting firm respondent said that, "...there are small buyers who buy cinnamon from farmers and resell to other collectors; they are called 'Muderalli'"

Another respondent described a collector that can be classified as a Type 3, or 'subcontracted collector'. This respondent revealed that his firm has a contract with specific exporting firms. The role of his firm is similar to that of a subcontractor for exporting firms. If a given exporting firm requests a specific amount of cinnamon, they buy this amount from a local collector, process it, and sell it to the exporting firms. Also, if they cannot obtain the amount the exporting firm requests, the exporting firm may send them some cinnamon and ask them to process it. Respondents said that they

do not transact with farmers and only buy cinnamon from other collectors. The interviewee add that his firm was originally a Type 1 collector. However, by contracting with specific exporting firms, they extended their business.

### (3) Exporting firms



**Figure 17 The Cinnamon Reprocessing Process**

Source: Jul. 24, 2018, by author

Exporting firms export cinnamon through their connections with buyers in other countries. To obtain cinnamon for export, they usually buy cinnamon from collectors and farmers and reprocess it. Some exporting firms do sulfur fumigation and reprocessing depending on buyer demand. The sulfur fumigation process makes the color of cinnamon sticks better and eliminates insects and fungus inside the sticks. During reprocessing (Figure 17), they cut the cinnamon into specific lengths as the request of buyers. These processes are undertaken at the factory level. Exporters therefore usually employ workers, though mostly on a temporary basis because cinnamon is a seasonal crop.

Another key function undertaken by exporting firms is satisfying the demand for certification and quality control. In reality, exporting firms are the only actors concerned about quality and certification. Most of the producers have no knowledge about the certification system. However, for exporting firm, quality control and certification are crucial to establishing and maintaining transactional relationships with buyers.

Some of the exporting firms try to develop value-added. One of the exporting firm respondents, for example, ventured that a lot of broken pieces of cinnamon are generated during the reprocessing procedure. These pieces only bring a very low price at market. However, by making value-added product *using* those pieces, they can earn more profit.

Concerning interactions with other actors, the respondent emphasized maintaining good relationship with farmers and collectors, remarking, "...one of the most difficult thing is that whenever we buy cinnamon from collectors or farmers, we have to check the quality of cinnamon again. There are some farmers who make low-quality cinnamon to earn more money in a short period of time. Nevertheless, we cannot cut the relations with these farmers and collectors. If we do that, there will be no one left who will transact with us. They are our first customer and we cannot cut them."

**RQ1(b)** How much value does each actor create, enhance and capture through the cinnamon production and distribution processes?

In terms of value *creation*, as seen before, most of the cinnamon production is carried out by farmers and peelers. According to the ISP report, 98% of exported cinnamon is exported as quills (cinnamon tubes). This means that virtually all of the value *creation* is done at the level of the farmer and peeler. Some exporters cut the cinnamon or perform sulfur fumigation., thus creating value *enhancement*. Also, some value enhancement is done at the exporting firm level when they produce higher value-added products from cinnamon scraps, or when they perform quality control and certification roles.

As discussed in the review of the literature, however, value *capture* has the most potential impact on regional development. To address the issue of value capture, two types of questions were asked. One type of question was direct, for example, “Among the actors who participate in the cinnamon industry, who has the most important role?” and “In your opinion, who gets the most profit among farmers, peelers, collectors and exporting firms?” The other type of question was more circumvented and a proxy for future prospects in the industry, such as “Would you recommend this job to your children? If not, why? If they could earn more money through it, would you recommend this job?” By utilizing both types of questions, actor perceptions pertaining to value creation and capture in the present can be compared to prospects for value capture in the future.

According to all informant input, farmers and peelers play the most important roles. Below are some quotations from various actors:

*“Actually, it is farmers. If they don’t do anything, nothing is made. Therefore, farmers have the most important role”*

– Government officer

*“The farmers do most of the work. But they are the people who get the lowest profit.”*

– Farmers

*“The people who harvest and produce the cinnamon. Farmers and peelers”*

– Collector

*“The people who participate in the cinnamon producing process”*

-Peeler

However, most of the informants answered that exporters capture the most profit among all actors involved in the local production network, the exception being one farmer informant who implied that collectors earn the most.

*“Exporters. Their social and economic level is high. So they are different from us. However, if there were more and more exporters, the competition would intensify. Then, they would buy cinnamon at higher prices and this would be connected to farmer’s profit.”*

– Collector

*“Exporters. Because they have monopoly in the cinnamon industry in Sri Lanka. They determine how much profit farmers take. There is big gap between the farmer and the exporter. It is very common in Sri Lanka’s agricultural sector, especially in the cinnamon industry...”*

– Government officer

*“The exporters earn more and more money, and the gap (between them and us) is bigger and bigger.”*

-Farmer

*“All of the profit goes to the collectors. ... Even though farmers and peelers work hard, the collectors extort profits from farmers. They buy cinnamon at a low price and sell it for a higher price.”*

-Farmer

The mismatch between the actors who create value and the actors who capture value is also noticeable in the answers to the questions pertaining to future prospects in the industry and whether or not they would recommend that their children follow in their footsteps. The following are answers proffered by various actors:

*“Yes, I would recommend it. This is very profitable business in Sri Lanka”*

- Exporting firms

*“No, this work is so hard and it is not enjoyable. The processing is too hard and we cannot earn enough money, compared with the working time (we put in). We have to work more than 15 hours (a day). I don't recommend it to my children.”*

-Peeler

*“No, the government does not promote this sector and there is not enough value. There no possibility. The job such as soft engineering is valuable.”*

-Farmer

*“Never, it is very hard job. We have to wake up at 3 or 4 am and work*

*until 10 or 11pm. It is very hard work, and compared with the intensity of the work, we cannot earn enough money. Even if we could get more money, I would not recommend it because it is too dangerous. ... Also, if we do other work, we can get an annuity (pension) when we are old. However, there is no annuity in this job and we cannot do this if we get old. Also, it is not stable. We can earn money only during the (cinnamon) season.”*

-Farmer and Peeler

While the exporter respondent said that he would recommend his job to his children, not one farmer and peeler agreed. This shows that while most value is *created* by farmers and peelers, most value is *captured* by collectors, and, even more so, by exporters. Further, this reality is something understood to at the individual level as something that probably will not change in this region.

The IPS report contains information about the distribution of profit among actors. They state that 81% of the price is taken by producers, 17% by collectors, and only 2% by exporters. Considering this discrepancy, it seems that producers take enough profit. However, additional analysis is required.

As covered earlier, the profit garnered by producers is divided by two actors, farmers and peelers. Given 81% of the profit, 1/3 is taken by peelers, which is 27%. Also, for the remaining 54%, about half is consumed by

production cost. Therefore, farmers garner only 27%. Further, the 27% benefit for peelers has to be divided among group member. If there are three members in one group, the skilled peeler will take 13.5%, lower than that garnered by collectors. And, as stated previously, the other workers will take about 10% and about 3.5%. Considering that there are various types of collectors, the 17% profit can be divided among several collectors.

Another factor is the time and effort spent during each phase of production, processing and distribution. While the farmers produce 350 kg of cinnamon per acre annually, the collectors and exporters deal with larger amounts of cinnamon. According to the data from one of the exporting firm's Facebook page, they exported about 400,000 kg of cinnamon in 2017. Also, there are a lot of exporting firms that exported more than 1,000,000 kg that year. Therefore, more in line with informant input, exporters and collectors do indeed *capture* most of the value, while farmers and peelers *create* most of the value.

According to GPN theorizing, power plays an important role in value capture (Henderson et al., 2002; Coe and Hess, 2010). Power has a relative effect (Allen, 2003) and is often manifested in the form of bargaining power (Coe and Hess, 2010). Value is subsequently created when each actor tries to earn their living by accessing and transforming resources (Coe and Hess, 2010). As can be seen from the analyses presented thus far, collectors have more power compared to farmers and peelers, and exporters exercise more

power in their dealings with collectors. This was reflected in an informant response:

*“... Already, the monopoly is serious. Farmers cannot change it. They don't have money, thus, they have to sell their crop at that price. They don't have options. ... Farmers cannot earn money. Sometimes, they cannot get (earn enough to cover) their production fee.”*

– Government officer

As the government officer insinuated, in the relation between the actors, exporters and collectors have more power than peelers and farmers. In the circumstance that farmers act as price takers and collectors acts as price makers, farmer have to sell their cinnamon to sustain their living and cover their sunk production costs, even though they want to demand a higher price.

The mismatch between the actors who create value firm the cinnamon and the actors who capture value from the cinnamon is connected to the shortage of peelers, one of the biggest problems the Sri Lankan cinnamon industry faces (Samarajickrem, 2015). It is, in a very real sense, a vicious cycle: social prejudices surround the peelers given their low incomes and difficult working environment, but they do not have enough power to command higher wages and they cannot earn enough money in increase the social standing that might contribute to more people pursuing the vocation.

This was a source of lament for many peelers. Two informants ventured,

*“The youth of today don’t want to do this job ... it is because it is hard to do and the reputation of a peeler is not good. If I tell them I am a cinnamon peeler, they look down on me. The peeler’s social position is too low.”*

-Peeler

*“If people can earn more money, people will do this work.”*

- Peeler

As discussed in the literature review, the different degree of value capture among actors affects regional development (Coe et al., 2004). RQ2 examines specificities associated with multi-spatial value capture vis-à-vis the targets regions.

**RQ2(a)** How are actors and actor relationships spatially situated in Karandeniya? If there is evidence of spatial switching, why?

**RQ2(b)** How are actors and actor relationships spatially situated in Matale? If there is evidence of spatial switching, why?

As covered in the research background, Karandeniya is the region where cinnamon is cultivated traditionally. About half of the farmers there answered that they inherited their land from their parents. When asked why they are engaged in cinnamon cultivation, the farmers said that they do so for reasons largely associated with path dependency, some answering:

*“...because cinnamon is the main crop commonly harvested in this region. Also, because there is a market (for cinnamon) in this region”*

-Farmer

*“I don't know how to cultivate other crops. Therefore, I cultivate cinnamon. Cinnamon is the crop that I inherited, and it is familiar to me.”*

-Farmer

*“... because my parent had cultivated cinnamon. The only thing I know is cultivating cinnamon”*

-Farmer

On the other hand, the region of Matale has only relatively recently begun to cultivate cinnamon. Farmers here voiced somewhat different reasons for engaging in cinnamon cultivation:

*“Originally, there was no cinnamon cultivated in this region. About 30 years ago, one-person who came from the Gampaha region started to grow cinnamon for household consumption. Later, people noticed that they can earn a lot of money through cultivating cinnamon and they started to grow cinnamon. ... I didn’t inherit the land from my parents. Nobody inherits cinnamon cultivating land in this region. Cinnamon cultivating began here with our generation.”*

-Farmer

So, again, the biggest difference between these two regions is that one region is a traditional center for cinnamon cultivation while the other region has a comparatively short history of engagement with the industry. As shall be shown, the two regions have therefore followed different trajectories.

### **(1) Past**

In the past, most of the exporting firms were located in the vicinity of Colombo. In the Karadeniya region, collectors brought cultivated cinnamon to Colombo and sold to the exporting firms. A farmer and exporter informant offered the following insights:

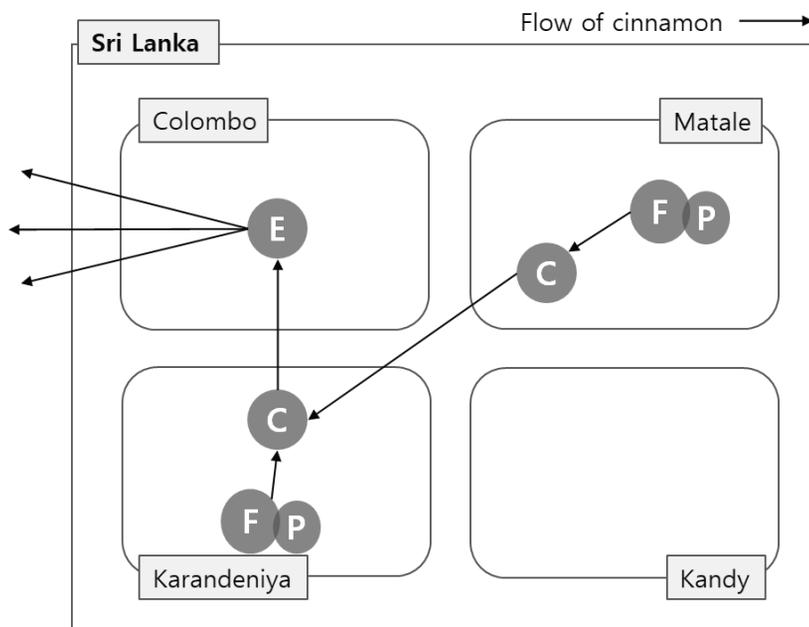
*“...In the past, some people would come to the house and collect cinnamon themselves and they would sell it to a collecting house. The*

collected cinnamon was transported to Colombo and exported to other countries.”

- Farmer (90s)

“At that time, most of the exporting firms were located in the Colombo Region. We sold our cinnamon to the exporting firms in Colombo”

- Exporter



**Figure 1 Previous Cinnamon Supply Chain**

Source: Generated from author’s data

As Figure 18 depicts, cinnamon was collected from farmers in Karadeniya, and then the collected cinnamon was sent to Colombo from where it was exported to other countries. Considering previous analyses connected to RQ1, exporting firms, who capture the most value, are located in the Colombo region. However, the farmers and peelers who *create* most of the

value, but cannot capture it, are located in the Karandeniya region. From the perspective of regional development and GPNs, this can be interpreted as most of the value being leaked to another region.

Similar things have happened in Matale. One farmer informant offered this opinion:

*“I was a collector at that time. Because I had a car, I collected all the cinnamon of the village and brought it to the Ambalangoda region. There were a lot of collectors. ... At that time, I thought that if I sold the cinnamon directly to the exporting firm in Colombo, I could get more money. Actually, the exporting firm gave me more money. When I sold the cinnamon to the collector in Ambalangoda, they requested that I deliver cinnamon to exporting firms on the way to Matale. Through it, I could contact exporting firm in Colombo.”*

-Farmer

Based on this input, the cinnamons cultivated in Matale was brought to the Ambalangoda region, which is located near Karandeniya, and sold to the *collectors* there (not exporters) (Figure 18). Even though connections with collectors in Ambalangoda were cut when networks were formed with exporters in Colombo, much is in Karandeniya, most of the value leaked to other regions, in this case Ambalangoda or Colombo.

These two regions have experienced different trajectories over the past

20 years. This will be discussed via-a-vis the present state of the industry and the actors in these regions today.

## **(2) Present: Karandeniya**

The biggest change in this region is connected to the local collector's strategic coupling with buyers in other countries. Two collectors in the Kanrandeniya region recently started exporting on their own, thereby circumventing the traditional export base and exporters in Colombo (Figure 19).

One of them started exporting in 2011. Originally, since 1983, sold cinnamon to the exporting firms in Colombo. However, they decided to export cinnamon themselves because of doubt over profit. This respondent added,

*“...the problem was that we didn't know how huge a profit margin they (exporting firms in other region) took! That profit didn't come to our region. Especially for farmers. This is the reason we started tot export ourselves.”*

- Exporter

They decided not to sell cinnamon to the local market in 2009-2010 and to export themselves. The interviewee was the person who led the export movement. Based on input from the interview with this informant,

the procedure of making connections with buyers globally can be understood.

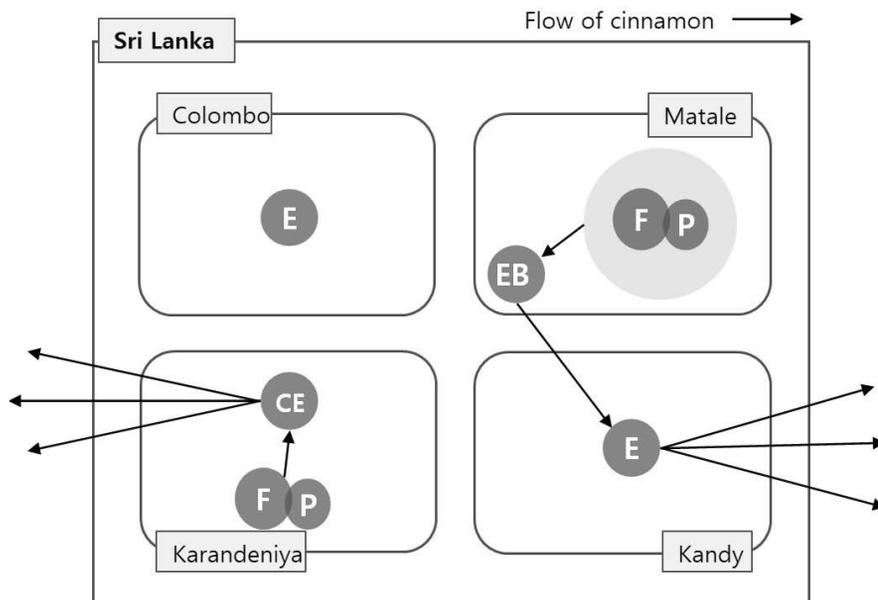
*“In 2009~2010, we tried to find buyers in the market. At that time, I was working in the apparel industry as an R&D manager. A lot of buyers from the US and the UK visited (the Sri Lanka) apparel industry. And we had some contact in foreign markets for cinnamon agent, broker. There is a brand called XX, an apparel brand. They normally came in...every six months. So at that time, I asked the buyer “We have a contact. This is my personal business (meaning cinnamon exporting). Please check and give me the background of that broker”. One day, they...told me access the businessman. “If you need to, then you can contact them and do the business”. But I was afraid to do that. We could only contact through Skype at that time. And they requested so many samples. Even after 1~2 years, it was not a success. But in 2011, they requested one container! They requested a container from us on a credit note. With my family and some other people, we discussed it for a while and decided to give them credit. In 2011, we sent a container by shipment (...) The container took 35-40 days to get to Mexico. As soon as (it arrived) I got the Visa, too. If something happened, I'd immediately have to go to Mexico and check the situation. But, fortunately, within 42days, they paid full amount. I waited 42 days. Actually, I didn't sleep much, didn't eat, everything. The amount is very high,*

*more than 100,000 dollars for the container. So if something had happened, we would have had to sell everything here....That's the success of our business."*

- Exporter

After starting exports to Mexico, they expanded their business to include Guatemala, India and Spain.

There is another exporter who was a local collector. They started exporting in 2002 because of a request from an acquaintance in the USA.



**Figure 19 Present Cinnamon Supply Chain**

Source: Generated from author's data

In GPN terms, this case can be interpreted as decoupling with the exporter in Colombo and strategically coupling with the buyer in another country. Therefore, the region became directly coupled with a GPN. Also,

by transforming from collector to exporter, they became a GPN actor as a trans-national firm engaging with a GPN through international trade (Yeung, 2015). In terms of regional development, this case can be regarded as successful as the region strategically coupled with GPNs and most of the value created by the cinnamon came to be captured in the region.

### **(3) Present: Matale**

In the previous case, a collector who had been a local actor transformed into an exporting firms by strategically coupling with a GPN. However, in Matale, an exporting firm who was *not* a local actor came *into* the region. The exporting firm, which had their roots in the Kandy region near Matale, established a branch in the Matale region in 2002. At that time, they suggested that farmers sell to them directly (Figure 19).

By making these connections with the newly established branch of the exporting firm, the region decoupled with the collectors *and* exporting firms in Colombo and the Ambalangoda regions, and then strategically coupled with the GPN via the firm with roots in Kandy. The role of collector was substituted by the farmer's society. In the farmer's society system, one president is selected among the farmers every year and they perform the role traditionally undertaken by a collector. If farmers cultivate specific amounts of cinnamon, they bring it to the president's house. Then, the president notifies the exporting firm and the exporting firm comes to the president's

house to buy the cinnamon. Therefore, the role of collector has disappeared in the Matale region.

In GPN terminology, the region decoupled with the local actor in the Ambalangoda region and strategically coupled with the GPN actor rooted in the Kandy region. Concerning value capture, because there is no collector operating between the farmers and exporting firm, the region captures more value. However, it is still the exporting firm who captures the most value, and they are based in another region. Therefore, the value created in the region is still leaked to another region.

Comparing the two regions using the GPN perspective, Karadeniya can be regarded as a more successful case than Matale. However, the question remains as to whether or not there is a trickle down effect whereby benefits are accrued by people at the local level. This will be addressed in the next RQ.

**RQ3(a)** How do the region's strategic decoupling and recoupling process influence regional actors in each region?

When the farmers of each region were asked if they would recommend their job to their children, most of the farmers in Karadeniya said “no”, while the majority of farmers in Matale said “yes”. This contrasts with the results of RQ2 in that Karadeniya was found to be a more successful case

than Matale. There is also an apparent contrast with the economic outlook of each region. According to the government officer's statement, for example, economic opportunity for farmers in the Matale region is higher than for those in the Karandeniya region given superior soil quality in the latter. However, while the soil quality in Karandeniya is only suitable for cinnamon or tea cultivation, Matale has high quality soil where farmers can grow any number of crops chosen by farmers.

How can this be further explained? To address RQ3, a distributional view is adapted. This view distinguishes between mere growth and equity, or well-being, and considers circumstances arising *after* value capture as critical to an on-the-ground, holistic understanding of regional growth trajectories (Coe and Hess, 2010; Choi, 2015). Therefore, in RQ3, the impact of strategic decoupling and recoupling on each actor is addressed.

As covered earlier, in Kararandeniya, a local collector transformed into an exporting firm by making a connection with buyers in other countries. By doing so, a lot of value, which had previously been leaked to the Colombo region, was captured in Karandeniya.

However, there were no changes to the situations of other actors, particularly further upstream in the value chain. For the farmer, the exporter now is one of the collectors. Two farmers there offered these insights:

*“There is no difference. They give the same price as other local*

*collectors in the region.”*

- Farmer

*“They (Exporter) buy a new car. However, farmer have no money to buy a car. It shows that the gap in the economic level between the farmer and the exporter has gotten bigger and bigger. There is no change. Just the economic inequality has intensified. Buying the new car means that they got a huge profit through exporting.”*

- Farmer

By starting the exporting business in the region, they employed more workers and the region’s gross income increased. However, captured value is not *distributed* proportionately to the farmers and peelers, the acknowledged backbone of the industry.

What about the Matale region? In this region, as the exporting firm anchored a branch in the region, most of the farmers started to sell their cinnamon directly to the exporting that firm, and the farmers supplanted the traditional role of the collectors with the farmer’s cooperative. However, a lot of value still seemed to leak to another region, because the actor (the exporting firm HQ) who captures most of the value is in fact located in another region.

Nevertheless, the farmers in the Matale region are satisfied with their

job and they perceive themselves to be catching enough value. One offered this about prospects going forward:

*“I want to recommend it to my children because we can earn a lot of money through cinnamon cultivation.”*

- Farmer

This difference with Karandeniya is derived from the relationship between the farmer and the exporting firm. The exporting firm, which has a branch in this region, pursues the organic food and fair trade markets. When they come into the region, the firm suggested that farmers grow their cinnamon in an organic way, not using chemical fertilizers. The exporting firm *promised to give farmers a higher price than offered in the southern area and extra support and cooperation*. Farmers are aware of this differentiation, venturing,

*“The collectors in southern region exclude some amount of price because they assume there will be broken pieces and low-quality cinnamon. However, the exporting firm (here) doesn’t do that....They just check the humidity. If the humidity is lower than 20, they give us the full amount. And they pay money on the spot. Even though the humidity is higher than 20, they ask us to dry cinnamon one more day. Then, they come to buy the*

*cinnamon and pay the full amount. The price they give us is based on the price of Ambalangoda. If the price is 2400 there, they give us 2600.”*

-Farmer

*“...that firm pursues the organic food industry. Therefore, they come to the region every 2 to 3 months. They explain to land owners how to cultivate cinnamon and the profit the people can get through cinnamon cultivating this way. They provide a training program and a support fund, seeding and farming tools. Therefore, a lot of people in this region started to cultivate cinnamon. If they cultivate cinnamon (organically) and sell it to the firm, they don't have to fertilize and there are a lot of advantages.”*

-Farmer

The increase in cinnamon farming activity is also connected to an inflow of peelers. In the Matale region, there are no skilled peelers. Therefore, farmers have to hire peelers from other regions. The farmers responded that they prefer peelers from areas near Karadeniya because of their working efficiency and skill. This benefits peelers in two ways. First, Matale has a different growing season than the Karadeniya region and there are no specific harvest seasons. Therefore, during the off-season, Karadeniyan peelers can come to the Matale region and earn more money. Second, the value is distributed more evenly to peelers. In the Matale region,

peelers can earn 1/2 of the cinnamon price, higher than the 1/3 they earn in Karandeniya. The value *distribution* to peelers has in turn influenced the Karandeniya region.

*“The shortage of the peeler is the biggest problem here. In this region, farmers give 1/3 of their income to the peeler. However, I heard that if peelers go to other regions such as Latnapura, they can earn 1/2. Therefore, the peelers from this region prefer to go to the other region.”*

-Farmer

In the Matale region, this can be seen as virtuous cycle, However, in Karandeniya, the constriction of value causes a shortage of peelers, more of a vicious circle.

These two cases show that there is a need to distinguish between ‘regional development as economic growth’, the conceptualization normally associated with the GPN perspective, and ‘regional development as well-being’. From the perspective of regional development as economic growth, value capture can be a sufficient condition for regional economic development measured at the regional scale. Seen in this light, Karandeniya is the more successful case. However, from the perspective of regional development as well-being, value capture is not a sufficient condition as value is not evenly distributed to all actors, many of whom actually *create*

value in the industry to begin with. From this perspective, Matale is a more successful case.

**RQ3(b)** What influences the different development trajectories of each region?

How can the different trajectories of these regions be assessed? Institutions and embeddedness play key roles. Karandeniya is the region where cinnamon has long been traditionally cultivated. Therefore, tacit rules exist and the relationship between the local actors are established by precedent. One exporter informant provided an example, starting.

*“If the farmer come to us to sell cinnamon, we can buy cinnamon from them. However, we cannot go to farmers ourselves and ask them to sell their cinnamon. It is business rule. We have to follow that rule. In this chain, the exporter is a sort of ‘big man, king’. If we go to the farmer, collectors will be angry. This is business and all the people want to earn money. Therefore, we cannot go to the farmers.”*

-Exporter

Even though there were cases where collectors transformed their role from that of collectors to that of exporters, they were originally collectors and they have societal and network embeddedness as collectors. Also, the

profit system has been formulated over a long period; thus, it is difficult to change it. This high level of embeddedness in Karaneniya affects the situation even now.

However, in the Matale region, the history of cultivating cinnamon is comparatively short, less than one generation. Therefore, the extent of embeddedness is low, and the rules less formally established. In this regard, the exporting firm anchoring a branch there might have been easier than had they tried to establish a branch in another region. After having done so, each actor could also easily change their role, a process exemplified by the farmer's system supplanting the traditional role of collectors. One farmer put it this way:

*“By the exporting firm coming into the region, they gave a higher price than selling in another region. Therefore, there is no need to bring (the cinnamon) to other regions. So, I quit collecting and concentrate on cultivating cinnamon.”*

-Farmer

If the exporting firm anchored in the Matale region tried to tap into the Karandeniya region, there would be no guarantee that the firm would succeed.

### 3. Summary

This research deployed qualitative analyses of interview and three RQs to explore the cinnamon industry and regional development in the Karadeniya and Matale regions of Sri Lanka using a GPN framework. The inclusion of power and embeddedness considerations, along with strategic coupling, decoupling and recoupling in addition to value creation, enhancement, and capture unearthed divergent development trajectories in the two regions from a distributional GPN view.

In terms of research results, the thesis first examined multiple actor participation and interaction associated with the cinnamon production and distribution processes in Sri Lanka, and their impact on value creation, enhancement and capture. Four main actors participate in the cinnamon industry – farmers, peelers, collectors and exporting firms. Cinnamon is cultivated and processed by farmers and peelers, after which it is collected by the collectors and resold to the exporting firms. While farmers and peelers *create* most of the value, exporters and collectors *capture* most of the value. This, it was argued, evidences a gap in power between these actors.

Second, the spatial (locational) aspect of each main actor and changes over time (e.g. spatial switching) were noted. In the Karadeniya region, local collectors strategically coupled with local exporters, and value that had been leaked was captured in the region. In the Matale region, informants

related evidence of strategic coupling between an exporting firm not headquartered in that region, but having a branch here. In this case, the extent of value capture in the region increased, but value still leaked out to another region.

Third, the extent of the region's strategic decoupling and recoupling efforts and influences on other actors within the regions were examined vis-à-vis the perspective of distributional view of GPNs. Even if Karadeniya can be seen as a successful case based on existing GPN theory that views success as economic growth measured at the regional scale, value was nonetheless not distributed evenly in the region, and a minority of actors with price making power continued to monopolize it. However, in Matala, even if some extent of value was leaked to another region, more value was *distributed* between the actors locally, and the satisfaction of each actor was higher than that found in the Karadeniya region. A high level of societal and network embeddedness was suggested as a reason for the different development trajectories.

This effort contributes to research on the distributional view of regional development in GPNs. In existing GPN debates, value capture is regarded as a necessary and sufficient condition for regional growth. However, there is a need for follow through; what happens *after* value capture? In 'GPN 2.0', for example, Coe and Hess (2015; p. 165) argue that we should consider, "...who actually gains from value capture dynamics within a global

production network, and in turn considering the extent to which those gains benefit the regional economy more widely.” Along a similar vein, Christopherson and Clark (2007, p. 148) use the term ‘investment regionalism’ and ‘distributive regionalism’. This research provides an example of the merits of this argument.

## VI. Conclusion

The purpose of this research was to capture the dynamics of an agricultural industry in the global South by analyzing the case of the cinnamon industry in the Karadeniya and Matale regions of Sri Lanka, deploying a GPN framework inclusive of (distributional) region development considerations. Three major motivation for pursuing the research were given. First, Sri Lanka is the world's largest producer and exporter of true cinnamon, but no studies of this industry in this country exist in the economic geographical literature. Connected to this, agriculture is critical to economies in the global South, but comparatively less work has been done on this sector. Second, GPN research has predominately focused on downstream activity, mostly connected to manufacturing and, to a lesser extent, services, and mostly in more developed or successful emerging economy cases. The present research, by way of comparison, focuses on upstream activity in an agricultural value chain. Finally, the GPN view of regional development focuses on economic growth measured at the regional level. The present research, however, adopted a less frequently used distributional view of regional development that instead focuses on equity for all stakeholders, or a 'well-being' perspective.

It started with a theoretical background related to GPNs and the potential to overcome the limitation in existing economic geographical

literature by paying attention to agricultural regions in the global South. The third chapter introduced background related to the research topic, which included multi-spatial information about the cinnamon industry as well as regional background on the target regions for the case study, Karadeniya and Matale.

The fourth chapter explored the cinnamon industry in the Karadeniya and Matale regions vis-à-vis regional development and the GPN framework. This unpacked the local environment, actor interaction and resulting structural outcomes. Further, it unearthed evidence of spatial switching in the cinnamon industry and its influence on both local actors and regional development. Field observation found four actors in the cinnamon industry, namely farmers, peelers, collectors and exporting firms. While the farmers and peelers *create* most of the value, collectors and exporting firms, actors in the minority, *capture* the most value. In the past, in both Karadeniya and Matale, the value created in the region leaked to another region because the exporters who captured the most value were located in Colombo. However, there were a series of cases of strategic decoupling with the exporting firms in Colombo and subsequent strategic recoupling with other actors. In Karadeniya, for example, the local collector strategically formed networks with a buyer abroad and started to export. Therefore, value was captured in the region. In Matale, on the other hand, another exporter from a nearby region anchored a branch and strategically coupled with the farmers there.

The value captured in the region grew, but value still leaked out. According to the existing view regional development in the GPN literature, one based on economic growth measured at the regional scale, Karandeniya is typical successful case. However, the extent of value *distribution* within the region was different. The farmers in Karandeniya still cannot capture enough value given embeddedness and institutional considerations there, while the farmers in Matale capture comparatively more value derived from exporter support and increased prices from organic cultivation. This, it was suggested, raises a pertinent question about regional development as growth. Therefore, this thesis argued for ‘regional development as well-being’ and a consideration of value distribution and equity for all actors within a given region.

The necessity for broadening the scope of regional development has been suggested by some scholars such as Kelly (2013), Choi (2015), Coe and Yeung (2015) and Coe and Hess (2010). Coe and Yeung (2015, p. 193) suggest, for example, the need to “...look at the wider distributional impacts of strategic coupling on individual and household livelihoods.” Nonetheless, this challenge has not been addressed sufficiently in existent GPN literature. In order to help address this void, this research provided a practical application case and considered the distribution of value among the main actors who participate in the cinnamon industry in the targeted regions.

There are some limitations in this research. First, budget and time

consideration resulted in only about four weeks of field work. A longer period would have helped to unearth more detailed aspects of the cinnamon industry in the regions under study. Second, and partially related to the first limitation, this research only examined the main actors in the industry. As briefly mentioned in the literature review, there are a lot of other actors who participate in the cinnamon industry, such as farm labor, exporting firm employees, government employees, banks, and related associations. However, they were not included in this research.

These limitations may help to inform future research. For example, the role of the government could be folded into additional studies. During the interviews, some disharmony between the government and farmers was noted. Institutional (e.g. policy) considerations, in short, could be given more thrift. Furthermore, the prosperity associated with the Sri Lankan cinnamon industry is attracting more and more actors. For example, via a collaboration between the government and UNIDO, a new processing system is being operated in another region. How the participation of a new competing region, new actors, and the emergence of a new system influence other actors and their connections would be an interesting line of future research.

Furthermore, this research focuses on the cinnamon industry in Sri Lanka during a boom time. However, there is no guarantee that this prosperity will continue. There could very well be a bust, if only cyclical.

Therefore, the increasing employment trend in the cinnamon industry in Sri Lanka is not good from the perspective of potential vulnerability. Because of the high demand for cinnamon in the global market and the corresponding high price, more and more people are participating in the cinnamon industry. In turn, this means that more and more people are dependent on global market trends and more vulnerable to fluctuations. Andriesse and Tanwattana (2018), argue for crop diversification in order to guard against downturns in agricultural markets and the devastation this can cause for agriculturally dependent countries.

In the end, research addressing poverty is of course important. However, given the burgeoning new economic order discussed in the beginning of this thesis, the dynamics and agency associated with an agricultural region in the global South should not be *a priori* overshadowed by a poverty and aid focus. Rather, research should include attention to said actor agency, relationships, and possible resulting equity. It is hoped that this research is viewed as having presented a case study and conclusions that reflect the merits of doing so.

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## 국문초록

### 글로벌 생산 네트워크와 지역 발전

#### 스리랑카 카란데니아 및 마탈레지역의 시나몬 산업을 사례로

송은영

사범대학 사회교육과 지리전공

서울대학교 대학원

본 연구는 글로벌 생산네트워크(Global Production Networks, GPN) 이론의 관점에서 스리랑카 카란데니아 및 마탈레 지역의 시나몬 산업에 주목한다.

연구의 전반부에서는 지역 발전의 측면에서 GPN 논의를 소개하고, 더 나아가 기존 경제지리학 논의의 한계를 지적한다. 기존 경제지리학 논의는 선진국 위주로 이루어져 왔으며, 주로 제조업과 같이 상품의 생산 및 분배 과정에 있어서의 downstream 활동에 초점을 맞춰왔다. 지역 스케일에서는 경제적 성장으로서의 지역발전에만 초점을 두는 경향이 있어왔다. 따라서 이 연구는 global South의 농촌 지역에서 이루어지는 상품의 생산 및 분배 과정에서의 upstream 활동에 초점을 두고, 지역발전에서 분배적 관점을 도입함으로써 기존 논의의 한계를 극복하고자 한다. 세번째 장에서는 다중 스케일에서의 시나몬 산업과 사례 연구 대상 지역인 카란데니아 및 마탈레 지역에 기본 현황 등 연구 주제와 관련하여 배경이 되는 정보들을 제시한다. 네번째 장에서는 GPN 이론 틀과 지역 발전의 관점에서 카란데니아와 마탈레 지역의 시나몬 산업을 탐구한다. 이를 통해 지역 환경, 행위자간 상호작용 그리고 이를 통해 나타나는 구조적 결과들을 분석한다. 더 나아가 두 지역에서 시나몬 산업과 관련하여 어떠한 공간적 전환(spatial switching)이 나타났는지, 이는 어떻게 지역의 행위자들과 지역발전에 영향을 미쳤는지 밝힌다.

시나몬 산업에서는 농부, 가공자(peeler), 중간 상인(Collector), 수출 회사와 같이 크게 네 가지 유형의 행위자들이 주된 역할을 수행한다. 이때, 다수를 차지하는 농부와 가공자가 대부분의 가치를

창출하는데 반해, 소수의 중간 상인과 수출 회사가 대부분의 가치를 포획한다. 공간적인 관점에서 보면, 과거에는 각 지역에서 창출된 가치가 수출회사가 위치한 콜롬보 지역으로 유출되었다. 하지만, 최근 몇 년 간, 콜롬보에 위치한 수출회사와의 전략적 분리(strategic decoupling), 다른 지역에 위치한 행위자와의 전략적 재결합(strategic recoupling)과 같은 일련의 변화가 있었고, 이를 통해 각 지역은 서로 다른 모습의 생산 네트워크를 가지게 되었다. 경제적 성장으로서의 지역발전에 초점을 두던 기존 GPN 논의에서는, 창출된 가치가 지역 내에 모두 포획되는 카란데니아가 성공적인 사례인 것처럼 비춰진다. 하지만, 분배적 관점에서 보면, 지역 내 행위자 간의 가치 분배가 적은 카란데니아에 비해, 비록 어느 정도의 가치 유출이 있지만, 지역 내 행위자 간 가치 분배가 많은 마탈레 지역에서의 행위자들의 만족도가 더 크게 나타났다. 이는 경제적 성장에만 초점을 두던 기존 GPN의 지역 발전 논의에 의문을 제기한다. 따라서 이 논문에서는 지역내의 행위자 간의 가치 분배를 고려할 필요가 있음을 주장한다.

**주요어:** 시나몬 산업, 글로벌생산네트워크, 카란데니아, 마탈레, 지역 발전, 스리랑카, 전략적 결합

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