

# Governance and upgrading in South–South value chains: evidence from the cashew industries in India and Ivory Coast

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**Abstract** *India, the world's largest processor of cashew kernels, depends heavily on imports of raw cashew nuts (RCNs), primarily sourced from Ivory Coast. While the Ivorian processing industry is still in its infancy, in the last decade domestic cashew factories have rapidly increased their capacity. This study is an exploration of how the cashew value chain is organized and what this implies for upgrading prospects in the Ivorian cashew sector. Its findings suggest that the cashew value chain is characterized by a bipolar governance structure comprising a trader-driven segment between Ivorian farms and Indian processors, and a buyer-driven segment that links processors to Northern end markets. The results are consistent with studies that describe South–South value chains as being less tightly controlled, with a decreased significance of quality related standards and lower entry barriers than those chains feeding into Northern end markets. Inter-firm linkages in the Indo–Ivorian RCN channel provide few opportunities for product and functional upgrading of RCN suppliers. Considerable institutional support is needed to overcome the barriers to Ivorian firms' direct participation in the North–South value chain for processed kernels.*

**Keywords** CASHEW NUTS, GLOBAL PRODUCTION NETWORKS, GLOBAL VALUE CHAINS, INDIA, SUB-SAHARAN AFRICA

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The rapid growth of trade between countries of the Global South has stimulated a recent debate about the implications and outcomes of geographical patterns shifting away from the dominance of North–South relations. Particular attention has been paid to the question of whether South–South links differ from North–South relations in providing better pathways to economic development (Horner 2016; Kaplinsky et al. 2011). Chain concepts such as global value chains (GVCs) and global production networks (GPNs) provide heuristic models for addressing such concerns. By highlighting the coordin-

ating power of lead firms and their role in shaping the development of supplier capabilities, value chain research has helped us to understand the territorial differentiation of global industries. However, studies investigating the impact of different forms of value chain ‘governance’ on ‘upgrading’ prospects along the chain have predominantly had a North–South focus. Research on agri-food chains has concentrated mostly on the role of Northern supermarkets and retailers in controlling the terms under which their Southern suppliers operate (Dolan et al. 1999; Ponte and Gibbon 2005). Furthermore, this literature has focused predominantly on downstream tiers of value chains and has paid less attention to the inter-firm linkages closer to the agricultural producers, which is where South–South trade often emerges. Existing studies on South–South relations have revealed much ambiguity in developmental outcomes and have emphasized the need for further research (Bernhardt 2014; Cattaneo et al. 2010; Kaplinsky and Farooki 2011). Horner (2016) points out that such an agenda should encompass paying renewed attention to the governance of GVCs, as well as to the ‘circumstances under which upgrading and associated territorial development can occur in South–South GVCs and GPNs’ (Horner 2016: 412).

In this study, I attempt to address such issues by analysing the value chain of raw cashew nuts (RCNs) between Ivory Coast and India. As the world’s largest processor of cashew kernels, India depends on RCN imports, which are primarily sourced from Ivory Coast. While the Ivorian processing industry is still in its infancy, the last decade has seen a rapid increase in the capacity of domestic cashew factories and there are plans afoot to transform the entire domestic raw nut crop into edible kernels by 2020. Against this background, before going on to analyse the opportunities available to upgrade the Ivorian cashew sector by improving both the quality of the raw nuts and their actual processing, I first explore the governance structure of the RCN channel by identifying the chain actors, their business strategies and resultant forms of inter-firm relations. After a theoretical framework and summary of recent research on agri-food value chains, a brief sectoral overview and outline of my methodological approach, I present my empirical findings followed by some concluding remarks.

### **Governance and upgrading in agri-food chains**

There has been a rapid expansion of research on global commodity chains (GCCs), global value chains (GVCs) and global production networks (GPNs) in the last two decades, which has produced numerous studies that advance theoretical foundations and apply them empirically. Much of this literature focuses on the role of lead actors in governing firm performances along the chain and the implications of that for chain participation and the distribution of revenues. The discussion on different governance types dates to Gereffi’s notion of value chain ‘driving’, which lead firms carry out in a strategic attempt to gain organizational flexibility while remaining in control of their suppliers’ product and process parameters (Gereffi 1994). Initially, two forms of value chain governance have been distinguished. *Buyer-driven* chains characterize industries where coordination is exercised through powerful supermarkets, retailers or branded manufacturers setting up decentralized production networks in exporting countries.

*Producer-driven* chains feature the large, often transnational manufacturers that carry out a critical part of production themselves while exercising control over their suppliers' product and process specifications.

The global agri-food sector is a prominent example of 'buyer-driven' chains in which supermarkets and retailers dictate the terms under which goods are produced, processed and transported (for example, Dolan et al. 1999; Ponte and Gibbon 2005). However, this classification has been challenged in several respects.

First, the notion of 'buyer' requires further clarification because the degree of power that lead actors exert varies significantly between types of buyers (Ponte 2002). For example, commodity traders tend to exercise a much lower level of chain-driving compared with supermarkets or retailers. As traders focus on volumes rather than on quality-related margins, they are less likely to take a proactive role in setting and controlling rigid product and process specifications (Gibbon 2001).

Second, studies have highlighted that the power to exert control over upstream suppliers may be shared between different lead firms. For example, Fold (2002) draws attention to the 'bipolar' governance structure in the chocolate industry, where coordinating power is fragmented between cocoa grinders and brand-name chocolate manufacturers. Similar observations have been made in the banana sector where the increasing concentration and consolidation of retailers challenges the dominance of vertically integrated MNCs (Riisgaard and Hammer 2011). Likewise, several technology intensive sectors have been characterized by the rise of turn-key suppliers with considerable profitability and power vis-à-vis brand-carrying buyers (Sturgeon 2002). Particularly in the PC industry, powerful component suppliers became de facto standard setters controlling the terms of competition among brand companies (Kawakami 2011). Such findings emphasize the dynamic nature of governance structures, resulting from companies' strategic attempts to increase benefits from value chain participation. Functional specialization of firms, accompanied by outsourcing or vertical integration, as well as the creation of competition among suppliers may over time change power relations along the chain. Furthermore, the power of lead firms in value chains might also be altered by extra-chain actors such as governments, standard developers or civil society organizations (Ponte 2014). Conceptualizing such external actors as active drivers of value chains, Ponte and Sturgeon (2014) suggest a distinction between unipolar, bipolar and multipolar forms of governance.

Beyond highlighting the critical role of key actors in coordinating value chain activities, GVC research has helped to explain how economic integration has opened development opportunities for firms and regions, particularly in the Global South. The concept of GVC upgrading was introduced to explore the processes by which value chain actors move into higher value-added activities (Gereffi 2005). Many studies distinguish between four categories of economic upgrading (Humphrey and Schmitz 2002). *Process upgrading* describes a move into more efficiently organized production processes. *Product upgrading* refers to a shift towards the production of higher value commodities. *Functional upgrading* describes the realization of new functions in the value chain. *Inter-sectoral upgrading* takes place when firms apply competences obtained in one function of the chain in another industry.

The type of chain governance is what mainly shapes upgrading prospects (Schmitz 2004). Today, agri-food chains are increasingly organized around long-term relationships in ‘strategic collaborations’ (Gereffi 2014), which give producers opportunities to benefit from the technical assistance and access to knowledge or technology provided by buyers. However, economic upgrading is not an inevitable outcome of GVC participation, for lead firms may prevent their suppliers functionally upgrading (Giuliani et al. 2005), or suppliers themselves may choose to downgrade to lower quality markets (Ponte and Ewert 2009). Furthermore, the type of buyer has direct implications for the upgrading of suppliers. The sourcing strategies of commodity traders, as opposed to supermarkets and retailers, may favour larger suppliers with a view to lowering coordination costs, ‘but this does not bear directly on nonvolume-related dimensions of upgrading’ (Gibbon 2001: 352). Economic upgrading may also coexist with the downgrading of certain groups in the same chain (Barrientos et al. 2015), or be accompanied by downward pressures on working conditions leading to social downgrading (Bernhardt and Milberg 2011).

Studies have shown that in the last two decades there have been shifts in governance patterns in the agri-food sector, which point to major changes in upgrading opportunities in upstream markets. First, concentration tendencies in the Northern retail sector have strengthened the bargaining position of buyers (Humphrey and Memedovic 2006) and, second, quality-based competition has fostered tighter control mechanisms along agri-food chains and has given rise to the proliferation of (particularly private) food safety and quality standards (Mayer and Gereffi 2010). Lee et al. (2012) point out that the nature of food standards is closely related to the type of lead firm and the degree of lead firm consolidation. Buyer-driven agri-food chains with consolidated retail power are likely to feature food safety standards designed to control risks in line with public regulations and thereby ensure consumer confidence. By contrast, value chains characterized by high fragmentation and the lack of a powerful lead firm typically show weakly developed standards.

While much literature has pointed to the possible detrimental effects of food standards on market access and on the cost advantages of suppliers (Humphrey 2006), standards can induce a ‘drive to capability building’ (Kaplinsky and Farooki 2010) by demanding advanced managerial competencies. Producers feeding into high-quality markets are particularly likely to benefit from formal contracting accompanied by technical assistance from buyers (Swinnen and Vandeplass 2011). Unlike value chains for undifferentiated commodities, quality-based competition requires tighter chain coordination to safeguard compliance with quality requirements, which often coincide with the provision of inputs, credit, technology or knowledge by buyers (Minten et al. 2009).

Overall, there is mixed evidence about the impact of recent transformations in the agri-food sector. The proliferation of standards and tighter chain governance have favoured some forms of product and process upgrading, but these are often accompanied by the exclusion of marginalized groups. Furthermore, loose forms of chain governance in fragmented upstream markets continue to coexist alongside closer buyer–supplier interaction in quality-conscious markets, giving rise to multiple forms

of governance along agricultural chains. However, such evidence is predominantly based on studies that focus on Southern suppliers catering to Northern end markets and much uncertainty exists about governance in value chains between Southern economies and related upgrading opportunities.

### **Changing patterns of global trade: implications for governance and upgrading**

Trade between countries of the Global South grew by 320 per cent between 2000 and 2010 compared with a 132 per cent increase of North–South trade over the same period (UNIDO 2015). GVC scholars are paying much more attention to South–South value chains and this has led to a growing body of literature on the role of emerging economies in externalizing their operations to other low income countries (Henderson and Nadvi 2011; Morris et al. 2011), as well as in redirecting their chains towards Southern end markets (Horner 2014). Some studies suggest that South–South chains differ from North–South ones in that they are less tightly controlled, so provide better opportunities to upgrade into higher-value functions facilitated by more equal relationships (Navas-Alemán 2011; UNCTAD 2011). This initial optimism has recently given way to a more uncertain view, which recognizes a possible trade-off between lower entry barriers and higher competition (Horner 2016). Lower entry barriers may derive from similarities in the regulatory systems of developing countries (UNIDO 2015), a decreased significance of standard specifications and a less sophisticated demand pattern in Southern end markets (Cattaneo et al. 2010; Evers et al. 2014). However, a more competitive division of labour between countries of the Global South, compared with a rather complementary division in North–South chains, might result in ‘win–lose’ situations related to fiercer price competition (Staritz et al. 2011). Furthermore, Morrissey (2012) points out that since most foreign direct investment in sub-Saharan Africa is for the purposes of extracting resources, it might create employment for unskilled workers but rarely contributes towards improving technology or knowledge. Hence, the emerging economies’ preference to import unprocessed commodities might restrict the suppliers’ upgrading prospects to low-technology and low-skill niches of the chain (Cattaneo et al. 2010; Gereffi and Lee 2012). These concerns are reinforced by a fear that the ineffectiveness of industry standards in the Global South could reduce upgrading opportunities (Kaplinsky et al. 2011) and bring about a ‘race to the bottom’ on working and environmental conditions (Nadvi 2014). This holds especially true for the processing of primary commodities in Southern economies, which often relies on a cheap workforce that tends to be weakly protected by health and safety legislation.

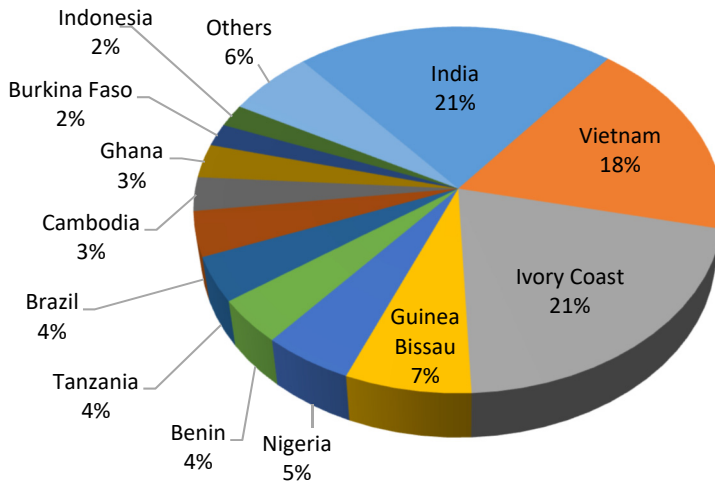
The following case exemplifies the importance of a developing country supplying unprocessed raw materials to an emerging economy. In line with the above considerations, I shall explore how the Indo–Ivorian RCN supply channel is governed and whether this South–South link facilitates upgrading opportunities for RCN suppliers.

### **The Indo–Ivorian trade in raw cashew nuts**

Cashew cultivation in Ivory Coast only started in 1959 (ACi 2010). During the 1990s, production volumes grew significantly from 6300 tonnes in 1990 to 335,000 tonnes in

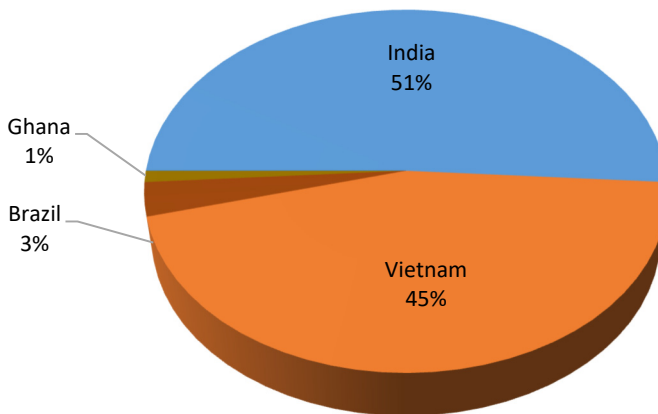
2008 (ACi 2010) and peaked in 2015 with an estimated volume of 700,000 tonnes (Rabany et al. 2015). In 2011, Ivory Coast became the second largest cashew producer worldwide (Red River 2011) (Figure 1). However, over 90 per cent of Ivorian RCN is exported unprocessed, primarily to factories in India and Vietnam (Figure 2), making Ivory Coast the world's largest RCN exporter.

**Figure 1: Share of largest RCN producers (2015)**



Source: own illustration based on data of Rabany et al. (2015).

**Figure 2: RCN export destinations from Ivory Coast (2015)**



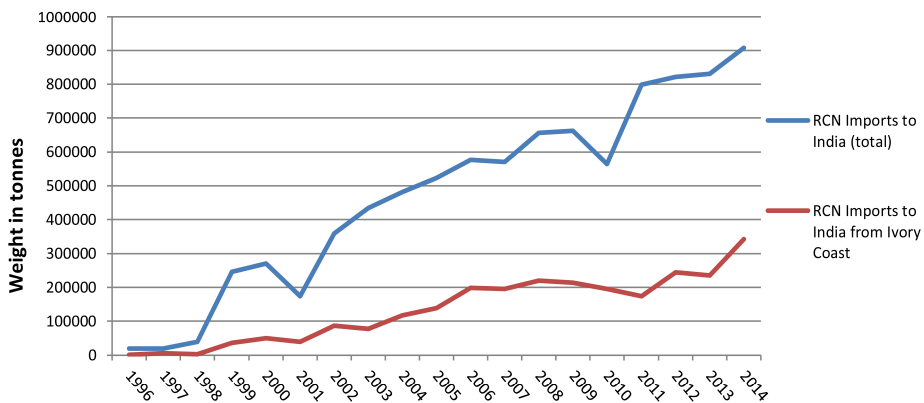
Source: own illustration based on data of Rabany et al. (2015).

Cashew processing in India emerged on a commercial scale in the 1920s and within about ten years the first processors had started to import RCNs, mainly from Portuguese Africa (Kannan 2002). Today, India is the world's largest processor and, after Vietnam,

its second largest exporter of cashew kernels; the greatest share of its processing capacity is situated in the southern states of Kerala and Tamil Nadu. India is also the world’s largest consumer of cashew kernels with a particular demand for broken grades, which account for up to 10 per cent of the nuts processed with manual cutting machines. To protect its domestic market, the Cashew Export Promotion Council of India (CEPCI) urged the union government to raise the import duty on processed cashew kernels to 46.5 per cent, which effectively put a stop to kernel imports to India.

The rapid growth in demand for cashews on the world market, along with stagnating RCN cultivation in India since the 1990s, has increased the dependence of Indian processors on RCN imports. Between 1996 and 2014, RCN imports to India increased by a factor of 47, with 38 per cent of RCN imports currently originating from Ivory Coast (Srivatsava 2014) (see Figure 3). In the same period, cashew kernel exports from India almost doubled,<sup>1</sup> with around 52 per cent of the exported volume feeding into Northern end markets in Europe and North America.<sup>2</sup>

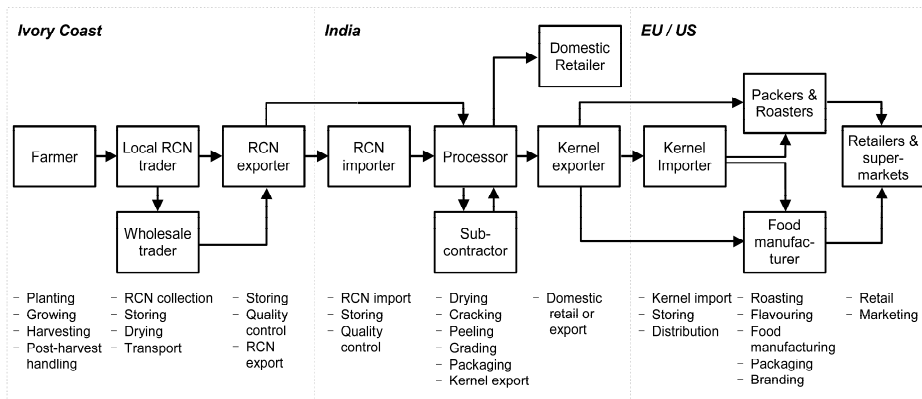
**Figure 3: India’s RCN imports**



Source: own illustration based on data of UN Comtrade.

The Indo–Ivorian cashew value chain consists of several tiers of traders who link Ivorian cashew farms to Indian processors. During the harvesting season, local village traders (so-called ‘pisteurs’) collect RCNs from farm gates. They are often pre-financed by wholesale traders who – either individually or under contract – collect the nuts on behalf of an exporter. Cashew processing has traditionally been a low investment activity with high labour intensity and minimal use of technology (Fitzpatrick 2011). The processing steps consist of drying the raw nuts, pre-treating them through roasting or steam-boiling, deshelling, preparing to remove the inner skin (testa), peeling, grading and packing. To crack the outer shell of the nut, Indian factories mostly rely on semi-mechanized machinery, or manual labourers using sticks or stones. Before the testa can be separated, the kernels are again heated and cooled down to make the skin looser and more brittle. Figure 4 gives a stylized overview of the actors and activities in the cashew value chain.

**Figure 4: Overview of the Indo–Ivorian cashew value chain**



Source: own illustration.

### Research methods

I adopt an exploratory qualitative approach based on empirical research conducted between April and August 2014 in India and between May and June 2015 in Ivory Coast. The primary data came from 102 semi-structured interviews with stakeholders, policy makers and support agencies along the Indo–Ivorian cashew value chain. In India, these comprised 45 face-to-face meetings with personnel in cashew processing factories, including executive staff and factory managers. The sample of interviewed cashew processors included registered companies and the unlicensed cottage units (*kudivarappu*) commonly found in Kanyakumari in the state of Tamil Nadu. While the statistical data on the cashew industry in South India vary, there are at least 1200 factories in the states of Kerala and Tamil Nadu.<sup>3</sup> Further primary data were collected from two trading companies and three cashew brokers. However, because processors often also trade in RCNs (see below), the distinction between different value chain actors is not always clear. During my fieldwork in Ivory Coast, I interviewed 9 farmers, 16 traders and 19 processors, who together represented 76 per cent of the country’s cashew factories. Following an open guideline, the interviews were designed to elicit information on the evolution and prospects of business operations, the types of forward and backward linkages in the value chain, and the importance of standards and external institutions to value chain activities. The collected data were complemented and verified during two meetings with the Cashew Export Promotion Council of India (CEPCI) and three with the Ivorian Cotton and Cashew Council (CCA), each of which also provided me with additional bibliographical information, secondary sources and internal documents. Two NGOs (one in each country) and one Indian labour union offered further information. The meetings lasted between 20 and 150 minutes.

### Governance in the cashew value chain

We now look at how inter-firm relations are organized in the Indo–Ivorian cashew value chain. We see how both the strategies of lead actors and external factors control



product and process parameters along the chain, putting pressures on its integration and disintegration at different nodes along the way. For clarity, this part consists of three sections – (1) processing activities in India and their linkages to Northern buyers; (2) the organization of the RCN trade between Indian processors and Ivory Coast exporters, and (3) how the RCN trade operates within Ivory Coast from the farms to the port.

### *Cashew processing in India*

From the start, the availability of cheap labour played a large part in determining the geography and organization of the Indian cashew sector. The relative lack of labour regulations in the Kingdom of Travancore (which covered most of Kerala's territory until 1945) compared with British India was a major reason to locate the industry in Kerala in the 1920s (Harilal et al. 2006). In the early 1950s, Kerala's favourable business environment began to change when the state government introduced various labour laws, including a legal minimum wage for factory workers and several social welfare schemes such as a retirement pension and public health insurance (Eapen et al. 2004). When this legislation started to threaten Kerala's cheap labour base, the processors began to subcontract the more labour-intensive activities, such as cracking and peeling, to factories in neighbouring Tamil Nadu where labour regulations were less stringent and the minimum wage was lower. Consequently, the share of Indian cashew factories located in Kerala declined from 92 per cent in 1961 to 42 per cent in 1985 (Srinivasan et al. 1999). At the same time, the number of factories in the border district of Kanyakumari, Tamil Nadu, increased from one registered factory in 1961 to 107 in 1972 (Srinivasan et al. 1999).

The South Indian cashew sector is still characterized by what started as a temporary arrangement to evade labour regulations in Kerala in the 1960s (Eapen et al. 2004). Many Kerala exporters continue to rely on commission agents in Tamil Nadu to process nuts on their behalf (the commission agent employs the labour, bears all expenses and charges on a 'per bag' basis), which is also referred to as 'toll processing'. One of India's biggest cashew exporters has no factory in Kanyakumari, only a warehouse for storing imported raw nuts and a packing centre for the processed kernels (interview, Kanyakumari, 19 July 2014). Commission-based processing has seen the rise of an informal labour force working from home, particularly for peeling the nuts. In addition, many kernel exporters started to lease unused factory premises for a certain period in which the leasing company would take responsibility for employing the labour. As one interviewee (Kollam, 23 May 2014) explained:

When the industry is not doing well and some owners have suffered setbacks, they don't have finance to buy raw material, then they will give their factories on lease to other people, to strong players in the industry. ... There are some people who are not interested in taking bank loans and things like that. Then they have one, two factories, they give it on lease, people who don't want to take the headache of actually doing the business.

As a result, those who own the factory premises, those who own the cashew nuts and those who take responsibility for labour and hygiene standards are frequently different people. The kernel exporters often only play a coordinating role in the network structure of the rather fragmented activities associated with processing cashews in South India. In other words, they neither own nor directly control the processing steps. While it was impossible to ascertain exactly how many factories in Kanyakumari operated on a lease or commission basis, a factory manager in Tamil Nadu claimed that they all did (interview, Kanyakumari, 19 July 2014).

In addition, horizontal inter-firm trade between cashew processors has become customary and many Indian factories rely on purchasing processed kernels from their competitors and exporting them under their own name. Sourcing from a network of ‘collaborating competitors’ allows processors to react more flexibly to market demands in relatively short lead times. ‘There are a lot of processors who sell to exporters like us. Like when there is a shortage, I go out to buy some grades, people would be there able to supply’ (interview, Kollam, 22 May 2014).

Such practices significantly limit the ability of Northern kernel buyers to monitor product and process specifications along their supply channel. Whereas Northern kernel importers attach increasing importance to food safety, quality and traceability, subcontracting the labour-intensive processing steps, using home processing, factory leasing and horizontal inter-firm sales hamper the monitoring of such standards in India. As one interviewee (Kollam, 22 May 2014) noted:

At houses, how do you control quality? How do you control safety, food safety?  
... When a buyer comes for an audit, a quality audit, then you cannot tell them  
‘OK, this much cashew is processed at these houses.’ You know, they go there  
and see some unhygienic environment and they go crazy.

Hence, the Northern kernel buyers’ control often ends in the Indian exporters’ packing centres. In fact, audits and certification by food safety management systems might be restricted to only some of the processing steps. This was confirmed by the managing director of a processing company (interview, Kollam, 28 July 2014) who stated that:

As of now, the system is that only the packing centres are certified under ISO 22000 or HACCP. But one packing centre may have a cluster of something like 12 to 15 processing units supplying that packing centre. So those units will not really be, maybe one or two will, but not all of them will be certified. ... In fact, I am not sure if there is anyone in India who has ISO certification for their entire operations.

Still, Indian processors can largely meet Northern buyers’ food safety concerns in a ‘kill-step’ just before shipping. As one interviewee (Kasaragod, 3 June 2014) said:

There are issues because of the fragmentation. ... [But] I don’t think that anybody got blacklisted yet. ... The concern is bacteriological and insects. So,

bacteria, just before packing it is re-treated. ... It's not a big problem. You heat it to 80 degrees for three hours. At 60 degrees most bacteria, 95–99 per cent, are supposedly killed.

As a result, the handling of RCNs prior to their final processing is of secondary interest to kernel buyers. For a long time, standards for processed kernels have largely been limited to the measurability of the nuts' physical properties. The most widely accepted AFI standard, for example, distinguishes between the diverse sizes and colours of whole and broken kernels. Recent food safety regulations in Northern end markets, however, have significantly raised supply-chain visibility requirements, thus increasing demands for traceability and third party verification along the cashew value chain. EU traceability standards oblige all actors in the cashew GVC to document 'one step' upstream and downstream. Furthermore, food-safety specifications in EU markets encourage some cooperation between kernel exporters and their buyers to guarantee a management system for food safety and risk control (Fitzpatrick 2014).

Similarly, in US markets the enactment of the Food Safety and Modernization Act (FSMA) in 2011 obliged US kernel importers to take preventive measures by verifying the implementation of a food safety system in their supply base. By insisting that food suppliers to the USA register and keep records, the US Food and Drug Administration (FDA) has effectively extended its jurisdiction to overseas processors. Anticipating these regulations, US importers increasingly demand third-party verification from suppliers and there is anecdotal evidence that HACCP and ISO 22000 certification will soon become the minimum requirement for exporting cashew kernels to US markets. This is accompanied by increasing demands for pasteurization as a 'kill-step' in cashew processing to provide better protection against microbiological contamination. However, since the rules for the implementation of FSMA were only finalized in 2015, current import practices are still characterized by considerable flexibility.<sup>6</sup>

#### *RCN trade between India and Ivory Coast*

The trade of RCNs does not follow standards set by any international body. As RCNs are a largely undifferentiated commodity with only minor differences across countries and regions, commodity specifications play a subordinate role (interview, Kollam, 4 April 2014). However, quality is measured at different levels of the RCN channel (most importantly before and after shipment) according to agreed procedures. These include the determination of the kernel outturn ratio (the quantity of acceptable kernels in an 80-kilogram bag after shelling), the nut count per kilogram (as a measure of the size of the kernels), foreign matter content and the moisture level of the nuts.

It is important to consider the procurement strategies of Indian cashew processors and the resulting inter-firm relations in the Indo–Ivorian RCN channel in the context of high price fluctuations. Because the cashew industry lacks transparency, it is highly prone to myths and rumours (Fitzpatrick 2012). These translate into highly volatile prices, which in turn increase the probability of contract breaches. As one respondent (interview, Kollam, 6 June 2014) explained:

What happens in the market is that default is happening from both sides. Sometimes some African exporters, they default. If the prices go up they don't deliver. But similarly, the smaller companies in India, if prices go down, even though they have a contract, they don't take the cargo or don't pay on time.

As a result, inter-firm relations are characterized by continual disputes, mutual suspicion and deep distrust, which the absence of any effective dispute resolution mechanisms merely reinforces. Nonetheless, the Indian processors have adapted their procurement strategies accordingly and, in the last decade, the Indo-Ivorian cashew value chain saw many examples of vertical integration (both forward and backward) between traders and processors (interview, Abidjan, 16 May 2015). Several Indian processors have set up trade offices, which by preference they register in Singapore or Hong Kong, to access and transfer working capital under preferential conditions. Similarly, some RCN traders started to engage in cashew processing. As one interviewee (Kasaragod, 3 June 2014) said:

It's all about managing your risk. ... One of the reasons why somebody gets into processing will be that he got stuck with the raw cashew. And the market can go either way. It can go down also and if he sells it, he is making a loss. ... So he does processing, so he can recover something.

The opportunity to process the nuts in India on a lease or commission basis made it possible for traders to enter the industry relatively spontaneously and without owning factory premises. One interviewee (Bondoukou, 16 June 2015) recalled the progress of a trader to one of India's biggest processing companies:

In 2010 or 2011, they have imported cashew to Mangalore. ... They purchased high and they put it in their warehouse but unfortunately what happened, the international market went down. Automatically the price of raw cashew nut also went down. So they were unable to sell that product. So, what they did ... some factories they took for lease, some factories they took as a toll factory and they started processing.

A second development has been the expansion of spot market transactions. Whereas long-term contracts were widely used a decade ago, the risk of defaults resulted in a preference for spot markets over forward contracts. As one Indian cashew processor (interview, Kollam, 17 May 2014) noted:

Both the import [of RCNs] and the export [of kernels] have now become largely a spot market business. Only some, a small percentage of the trade, is done on a long-term basis, with contracts. ... Earlier, it was not so much of a spot market. Now it is mostly spot because of defaults. I mean, what is the point in signing a contract for December if you don't know what will happen?

Hence, the risk presented by fluctuating prices and the absence of effective arbitration mechanisms has introduced two contradictory developments into the link between RCN exporters from Ivory Coast and Indian processors – vertical integration and increasing back-to-back business.

*RCN trade within Ivory Coast: from farms to port*

The governance structure of the RCN procurement channel in Ivory Coast, from farm gates to port, is mainly shaped by commodity specific properties. These include a relatively low value-to-weight ratio, a geographically dispersed cultivation area, and seasonal variations in the availability of raw nuts (cf. Gibbon 2001). The geographical spread of cashew farms makes it difficult for processors to procure demanded volumes directly from producers and no single trader has the capacity to fulfil this function. A discontinuous supply pattern means that processors source their whole annual demand during the harvesting season, which in Ivory Coast only lasts from February to May. The need to procure large volumes in a limited time requires traders to coordinate a broad number of supply sources, thus resulting in a procurement channel structured around several tiers of traders. Inter-firm linkages within Ivory Coast are primarily based on informal, seasonal contracts, which create unstable business relations characterized by frequent defaults. However, most village traders require pre-finance to pay farmers on the spot, which is why the procurement strategies of RCN exporters offer a trade-off between the risk of losing pre-finance (in the case of advancing working capital in closer buyer–supplier relations with village traders) and the risk of not receiving any RCNs (in the case of purely relying on spot market transactions).

Since the profitability of cashew traders depends largely on volumes, a few powerful commodity traders dominate the Ivorian RCN exporting sector.<sup>4</sup> Given that many of these companies are registered in Asian financial hubs, access to credit on preferential terms is a major source of competitiveness and market power. As one interviewee (Kollam, 21 May 2014) explained:

They are buying the nuts and then they speculate. ... That is killing the market actually. It is not a free market. ... What happens is, for example a big company, say a very big global company comes into the industry, they take whatever quantity is available and countries that are depending on that supply, their chain of supply is disrupted, because he is not willing to sell it at a specific price. If it was a free market anybody can go buy the quality he wants.

In sum, the multi-tiered RCN channel in Ivory Coast, and the subcontracting of processing activities in South India, complicate the monitoring and enforcement of product and process standards for a single actor along the entire chain.<sup>5</sup> Instead, the cashew GVC is characterized by a bipolar governance structure comprising two distinct segments. On the one hand, the kernel buyers who drive the trade between Indian factories and Northern end markets are attaching increasing importance to food safety and quality, but their power to control the chain often ends at the packing centres of the

Indian exporters. On the other hand, the international commodity traders who coordinate the RCN supply between the Ivorian farms and the Indian factories drive the RCN channel between India and Ivory Coast. Their dominant position mainly derives from the large amount of working capital needed to collect the raw nuts and to pre-finance a network of smaller traders during the season.

These two subsystems of governing the cashew GVC imply very different forms of entry barriers to the chain. Exporting processed kernels to Northern end markets requires compliance with increasingly strict legislation on food safety and quality, often verified by external certification schemes. The barriers to entering the RCN trade in upstream markets, by contrast, are much lower and RCN traders' commodity specifications and control mechanisms appear to be less demanding.

### **Upgrading prospects in the Indo–Ivorian RCN chain: learning by exporting?**

The dominant role of commodity traders in 'driving' the upstream end of the cashew value chain has major implications for product and process upgrading of RCN production, as well as for the functional upgrading of the Ivorian cashew sector into processing.

#### *Product and process upgrading of RCN cultivation*

Being an undifferentiated commodity with relatively lax quality requirements, the control mechanisms over product specifications are of little importance and initial entry into the trader-driven RCN chain is significantly lower than that of the buyer-driven one in downstream markets. This implies that lower levels of cooperation and fewer investments in supplier capabilities are required to sustain inter-firm relations. For example, while the post-harvest handling of RCNs, particularly proper drying, has a significant impact on the quality of the nuts, traders rarely invest in drying yards at the village level. The Ivorian Cotton and Cashew Council (CCA) recently introduced a maximum moisture level of 10 per cent for RCN exports from Ivory Coast, but since the humidity is primarily determined during the post-harvest drying, this standard does not necessarily require tighter chain coordination by traders. Besides, producer-level investments are mainly hampered by hold-ups arising from weak contract enforcement. Cashew farmers who receive support for quality improvement might decide to sell their high-value produce to another buyer. An Ivorian RCN buyer stated that for this reason he terminated his agreement with a local NGO to train farmers in post-harvest techniques (interview, Bouaké, 8 June 2015). At the same time, village-based traders rarely pay quality premiums for properly dried nuts. Hence, loose chain linkages within Ivory Coast provide little incentive to upgrade the quality of the product.

#### *Functional upgrading of the Ivorian cashew industry*

Functional upgrading of the Ivorian processing sector implies disengagement from the 'trader-driven' RCN channel and, instead, direct participation in the 'buyer-driven' chain. This requires overcoming major constraints, especially access to finance, RCNs,

technology and the knowledge on factory management needed to meet the Northern buyers' food safety requirements.

There is little indication that vertical chain linkages provide the basis for organizational learning or spillovers of knowledge and technology from India to Ivory Coast. As farmers and (primarily Indian) RCN exporters are mostly linked through intermediaries during the harvesting season, direct linkages between Indian processors and Ivorian farmers are non-existent. The rapid emergence in recent decades of new processing factories in South India, by contrast, has been closely linked to interactions with established companies. The owner of an old family-run processing company explained (interview, Kollam, 29 July 2014) that:

Most of the other now big processors were roasting for us earlier. ... Or they were supplying us raw cashew. Or they were doing job work. They built a factory, but we were supplying them raw cashews, taking back the kernels. So, they found out more about cashew from the older companies. Not that they didn't have the money, they had the money but they didn't have the know-how to do it. All these older companies taught these people how to do it.

Furthermore, there are many examples in South India of cashew farmers who started processing their own nuts before selling them to local factories. For example, farmers and villagers in the municipality of Panruti, Tamil Nadu, have invested in processing machinery, such as steam boilers, which they also rent out to other farmers. This functional upgrading is facilitated by direct links between processors and farmers, which allow the latter to benefit from larger processors' knowledge and distribution channels.

However, despite the absence of direct linkages to Indian processors, the capacity of Ivorian cashew factories has expanded rapidly over the last five years and is now about six times higher than it was in 2011 (Ricaud 2014). Only one of the approximately 25 Ivorian processing companies originates from India.

While many Ivorian processors acquired the financial means to start their businesses through exporting raw materials (including RCNs), not one of them claimed to have learnt about kernel processing through their export linkages. In fact, more than 80 per cent of the interviewed processors had received their technical proficiency from an Ivory Coast support agency, usually the NGO TechnoServe. Headed by an Indian national with extensive experience in cashew processing, TechnoServe advises on factory management skills such as accounting or batch processing, importing and installing machinery, and training workers. It also offers support for the certification of factories to comply with buyer demands. For example, the business association African Cashew Alliance (ACA) created the ACA Quality & Sustainability Seal, which verifies adherence to quality, food safety, social and labour standards in line with the US Food Safety Modernization Act (FSMA). In 2013, the first Ivorian processor became certified with the ACA Seal.

Furthermore, in 2013 the Ivory Coast Cotton and Cashew Council (CCA) was mandated to enhance regional value capture by increasing the conversion rate of national RCN production to 100 per cent by 2020 (ACA 2014). Set up by the Ivorian Ministry

of Agriculture, the CCA is composed of government representatives and various industry stakeholders and, since its inception, has initiated several support schemes to overcome technological limitations. In 2014, it organized its first international exhibition of cashew processing equipment and technology (SIETTA). In the same year, it signed a memorandum of understanding with the Vietnamese Cashew Association (VINACAS) under which Ivory Coast agreed to give Vietnam priority access to its RCN production in exchange for processing technology and technical assistance. As the world's second largest processor of cashew kernels, Vietnam is the number two export destination of Ivorian RCNs. However, Vietnam relies much more on mechanization than India does. In 2015, the CCA, the Vietnamese Polytechnic University of Ho Chi Minh City and the Institut National Polytechnique Houphouët Boigny (INP-HB) jointly established a cashew processing technology centre in Yamoussoukro to assist cashew factory start-ups with machinery and to train factory staff (ACi 2015).

Apart from access to knowledge and technology, the huge amount of capital needed to build up an annual RCN stock during the harvesting season is a major problem for cashew factories. This became obvious during the 2015 season, when RCN prices more than doubled. Since Ivorian banks are reluctant to finance local processors (usually because they have insufficient collateral and no operational history), the Ivorian factories are unable to compete with the Indian RCN traders over the raw material and, consequently, less than 50 per cent of the installed capacity of Ivorian processors was utilized in 2015. To overcome their financial limitations, Ivorian processors have made several suggestions to the CCA, including introducing a priority buying window to allow Ivorian processors to purchase RCNs at the beginning of the season before the Indian RCN exporters enter the scene. Furthermore, the installation of a publicly funded credit guarantee facility has been proposed to provide banks with the collateral required to finance the cashew industry (interview, Abidjan, 28 May 2015).

### **Concluding remarks**

This article seeks to contribute to a better understanding of governance structures in South–South value chains and of related upgrading opportunities for the suppliers of raw materials. The evidence from the cashew industries in India and Ivory Coast points to a bipolar governance structure of the cashew value chain consisting of a trader-driven segment between Ivorian farms and Indian processors, and a buyer-driven segment that links processors to Northern end markets. The underlying factors that account for the emergence of these two value chain subsystems differ from those of former studies on bipolarity, in which rivalry between Northern firms in agri-food chains (such as banana-MNCs vis-à-vis retailers) primarily determined the governance structure. The structural pattern of the cashew value chain, by contrast, is best comprehended through a combination of industry factors, both internal and external to the value chain, which either complicate lead firms' control along the chain or render it redundant. Being a relatively undifferentiated commodity, quality specifications for RCNs are of secondary interest and traders have little incentive to monitor upstream activities. A geographically dispersed and irregular RCN supply led to the emergence of a multi-tiered value chain



in Ivory Coast dominated by financially strong traders able to pre-finance transactions. On the other hand, Northern buyers attach increasing importance to food safety and quality attributes, often verified by third-party certification bodies. However, fragmented processing activities in India restrict the ability of Northern buyers to monitor product and process parameters prior to packing centres.

The uneven proliferation of industry standards along the cashew value chain are in line with the assumption that buyer-driven chains with consolidated retail power coincide with stricter food safety and quality standards as opposed to more fragmented value chains. Overall, the bipolar structure of the cashew value chain reflects the divide between North–South trade of quality sensitive products and South–South trade of an undifferentiated raw material.

The bipolar governance structure of the cashew value chain has major implications for the upgrading prospects of the Ivorian cashew industry. Functional upgrading into processing requires integration into the buyer-driven chain segment, characterized by higher entry barriers related to quality and food safety requirements. Commodity traders neither set incentives for quality-related upgrading of raw nuts nor offer knowledge and technology-related spillovers. Furthermore, a competitive division of labour between Ivory Coast and India is likely to result in a ‘win–lose’ competition over processing activities. Hence, the future of the cashew processing industry in Ivory Coast will mainly depend on institutional efforts to provide the conditions under which knowledge, technology and finance become accessible.

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## **Notes**

1. Based on UN Comtrade data.
2. Estimated from the data of the Cashew Export Promotion Council of India (CEPCI).
3. According to a V. V. Giri National Labour Institute study, there are 800 cashew factories in the state of Kerala (NLI 2014). In Tamil Nadu, the number of cashew factories in the district of Kanyakumari alone is estimated to be more than 400 (Sivasankaran and Sivanesan 2013).
4. Traders can be grouped into (1) exporting companies with seasonal activities in the cashew sector (almost always associated with an Indian processor) and (2) companies with year-round activities. The second type tends to operate in a variety of agricultural sectors and dominates cashew exports from Ivory Coast with global companies such as OLAM or ETG.
5. Only one trading company has fully integrated its operations, with direct linkages to Ivorian farmers, processing units in Ivory Coast and India, and warehouses in Europe.
6. Information primarily based on the panel discussion ‘Meeting kernel buyers’ requirements and food safety law compliance’ at the World Cashew Convention, 18–20 February 2016, Dubai.

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