

## Strategic Coupling in Global Agri-business Value Chains: perspectives on Smallholder tobacco production and Local Economic Development in Tanzania

Makoye Edward <sup>1</sup>  
Mzumbe University,  
TANZANIA  
[edwardmakoye@gmail.com](mailto:edwardmakoye@gmail.com)

Received : 10 /05/20 24

Accepted : 31/03/ 20 25

Published : 01/07/20 25

### Abstract:

This paper focuses on strategic coupling between international capital and local assets and associated local economic development in Urambo, Tanzania. The paper draws on fieldwork conducted in the global value chain for tobacco originating in the smallholder contract farming scheme in Urambo District, Tanzania. The economic structure of Urambo District is heavily dependent on tobacco cultivation promoted and supported by the subsidiaries of international tobacco-leaf processors. The paper argues that concurrent successful strategic coupling between international capital and local assets is nested in the so-called primary cooperative societies (hereafter PCSs) and their capacity to implement contract farming and ensure compliance with the key requirements set by tobacco-leaf processors. The data were collected through both a structured survey questionnaire and face-to-face interviews with farmers and the PCS leaders. Findings indicate that local economic development happening on the ground depends mostly on the extent to which farmers can 'tap' into the tobacco value chain to reap and capture the resulting economic benefits. However, a tendency towards differentiation is observable between PCSs and farmers within PCSs, raising questions regarding successful strategic coupling, local patterns of socio-economic development and spatial inequalities in the farming communities. The paper concludes with some broader reflections on the frictions and tensions surfacing in local communities in the search of successful strategic coupling.

**Keywords:** Global value chains, local economic development, contract farming, strategic coupling, Tanzania.

**JEL Classification Codes :** Q13 ; O18 ; F63, R11, L23.

## 1. Introduction

Smallholder tobacco cultivation in Tabora region dates back to the mid-1950s and is now an important cash crop for more than 100,000 households that are directly engaged in tobacco production, as well as numerous people working along the value chain, from the trading and transportation of leaf tobacco to processing dried leaf into tobacco blends before it is exported. Tobacco is ranked first in vital foreign exchange earnings among major export commodities in the period between the year 2014 and 2016 (URT, 2016; Bank of Tanzania, 2016). Around 75% of all the tobacco produced in Tanzania is exported annually, and the tobacco-producing districts are directly affected by the dynamics of the world tobacco market. The state played a pivotal role in facilitating the growth of the tobacco sector prior to the implementation of structural adjustment programmes in the mid-1990s. Following the dismantling of the parastatal marketing channel in the 1990s, the former parastatal processing plants were privatized, one of them being sold to one of the world's leading tobacco-leaf merchants and processors (Tanzania Tobacco Processors Limited),

<sup>1</sup> Corresponding Author

while another international company entered the market and built a new factory called Alliance One Tobacco Limited (formerly Dimon) (Boesen and Mohele, 1979; Mitchell and Baffes, 2002). In addition to the two now well-established tobacco-processing companies, Japan Tobacco International (JTI) is the third large international-brand cigarette manufacturer that entered the market in 2013/2014 and started purchasing tobacco leaf from smallholders. The tobacco-processing companies supply a portfolio of tobacco blends to large international-brand cigarette manufacturers such as Philip Morris, British American Tobacco and Japan Tobacco International.

The role of the international tobacco-processing companies in shaping processes of socio-economic change at the tobacco community level in Tanzania has increased profoundly in recent years. This paper explores the outcomes of the so-called successful strategic coupling between international capital and local assets based on data collected through a questionnaire survey of 228 tobacco-producing smallholders, as well as semi-structured interviews and focus-group discussions with tobacco-processing companies, primary cooperative societies (PCSs) and government staff at various levels. Section 2 engages with the recent literature that has emerged from two distinct yet overlapping approaches used to study economic globalization and economic development dynamics in places where global value chains ‘touch down’: the global value chain approach and the global production network approach. Section 3 moves to the Tanzania context and examines first the role of the PCSs in implementing contract farming and conforming to the requirements on good agricultural and labour practices imposed by large brand cigarette companies. Secondly, it analyses how value is captured at the household, PCS and district levels. The results indicate significant variations in smallholders’ capacity to enhance and capture value from tobacco cultivation. A similar tendency towards differentiation is observable among the PCSs, raising questions regarding successful strategic coupling, local patterns of socio-economic development and spatial inequalities. The paper ends with some broader reflections on the frictions and tensions that may surface in local communities in the wake of successful strategic coupling.

## 2. Theoretical approach and review

### **Strategic coupling and value in global agri-business value chains**

The analysis of economic globalization processes and impacts on regional, national and local economic development has been improved considerably by conceptualizing the interconnectedness and linkages between widely dispersed economic actors in global value chains. The GVC approach has been instrumental to the contemporary development research (Werner, et al., 2014; Gereffi, 2014; Fold, 2014; Goger, et al., 2014) not only because of its ability to portray the spatial concentration and dispersion of production activities but also uncovering the way the value tends to be created and captured within them (Gereffi, 2014). Originally, GVC was developed by Gereffi in the mid-1990s, perceives a global value chain as a series of different sets of labour and production processes within each segment and the material flows between them, linking producers and enterprises in developing countries to those in developed ones (Gereffi, 1994; 1999). The governance structure draws attention to the vertical coordination of economic activities through non-market relationships (i.e., inter-firm linkages) and involves the ability of lead firms to determine the activities of other companies in the chain by defining products, specifying procedures and setting standards in the chain (Gereffi et al., 2005). Historically in the GVC literature, upgrading refers to opportunities for developing-country producers to make better products more efficiently and with more skilled workers (Gereffi, 1999). In the seminal work of Humphrey and Schmitz (2002), the

authors suggest four categories of upgrading (process, product, functional and inter-sectoral upgrading), and numerous GVC studies have taken their point of departure in this typology of upgrading and have advanced our understanding of real-world patterns of upgrading (see, for example, Lee et al., 2010; Ponte and Ewert, 2009).

However, despite some recent efforts to develop close links between upgrading and the territorial dimension (see, for example, Fold, 2014), criticisms of the lack of broader development issues in how upgrading is conceptualized remain. As emphasized among others by Bair (2005), the upgrading of suppliers in GVCs does not necessarily result in improved working conditions, nor is it possible to ‘scale up’ from processes of upgrading at the firm level to territorial development at the local, regional or national levels (see also Bair, 2009; Tokatli, 2013; Barrientos, et al., 2011). The global production network (GPN) approach has emphasized the territorial embeddedness of GVCs and the possibilities to reap and capture the economic benefits for local territorial development in places where the respective chains ‘touch down’, thus permitting the value that is created, enhanced and captured locally to be examined. This is especially so ‘where regional assets can complement the needs of global lead firms as part of a process of strategic coupling’ (Coe et al., 2004: 471; Yeung, 2009; Yeung, 2015). The intrinsic conditions necessary for local economic development include regional assets such as specific kinds of knowledge, skills and expertise to positioning suppliers along the value chain and to fitting the strategic needs of lead firms within GVCs (Coe et al., 2004: 470; MacKinnon, 2013: 308). However, the existence of this capacity is not automatically guaranteed, and the mere incorporation of firms or regions into GVCs does not necessarily result in positive local development outcomes. The likelihood of it doing so depends on a specific ‘match’ between territorial and industrial dynamics in which institutions play a pivotal role in mediating and shaping development outcomes (Neilson and Pritchard, 2009; MacKinnon, 2012). Hence, regional institutional arrangements influence the terms of engagement within specific GVCs and the possibility for the creation, enhancement (‘upgrading’, see above) and capture of value through transnational economic activities (ibid; MacKinnon, 2012).

Socio-economic development outcomes in regions where GVCs ‘touch down’ do not occur within a ‘passive political landscape’ (Neilson and Pritchard, 2009: 211). Development trajectories depend critically on the power of place-based institutions to continue negotiating and re-negotiating with international capital. As acknowledged by Coe et al., (2008), power asymmetries might prevail within GPNs, and some actors (e.g., lead firms) tend to be stronger and more powerful than others in capturing value from economic activities (see also Coe and Hess, 2011; Kadarusman and Nadvi, 2012). Unequal gains in value created in the region between international lead firms and local actors could lead to ruptures and frictions (MacKinnon, 2013: 312). However, as emphasized by Mackinnon (2013: 208), ‘these asymmetries have been largely neglected by the GPN approach which adopts a positive stance towards external capital, emphasizing the scope for the development of shared interests between regional institutions and “focal” firms in GPNs and the ability of the former to bargain with the latter on what are implied to be relatively equal terms. Based on a study of the Pilbara region in Australia, MacKinnon (2013) points to the existence of ‘ruptures and frictions’ both within the region and between the GPN and the region. Yeung (2015) emphasizes that ruptures and frictions can occur even without necessarily focusing on strategic coupling, but this does not imply that the coupling process is unsuccessful. The author takes the argument further by suggesting that the notion of strategic coupling should be viewed as a dynamic concept with real

world possibilities for re-articulation into the growth dynamics of different GPNs. The negative consequences of regional coupling in GPNs are subject to the ‘evolutionary mechanisms of regional institutional layering, conversion and recombination’ (ibid: 9).

This paper adds to the above debates over how regional development is influenced by the dynamics of GVCs. Most recent studies of strategic coupling within the GPN ‘camp’ have focused on production and trade in manufactured products in the context of territorial regions, the chief geographical foci being East and Southeast Asia. While the notion of strategic coupling has rarely been applied to the study of local socio-economic dynamics in the context of rural agriculture in Africa, only a few studies within the GVC approach have recently moved beyond a focus on the vertical chain by incorporating broader development issues (see Fold, 2014; Fold and Jeff et al., (2018). This paper takes its point of departure in the notion of strategic coupling between international capital and local economically productive assets in the analysis of local socio-economic development trajectories where the global tobacco value chain touches down. It also problematizes the so-called ‘dark side’ of strategic coupling: the contested power struggles, ruptures and frictions that may surface at the local territorial level, as well as the uneven regional development that may result from differentiation both within and between villages in the wake of successful strategic coupling.

### 3. Methodology

#### **Researching strategic coupling between international capital and local assets**

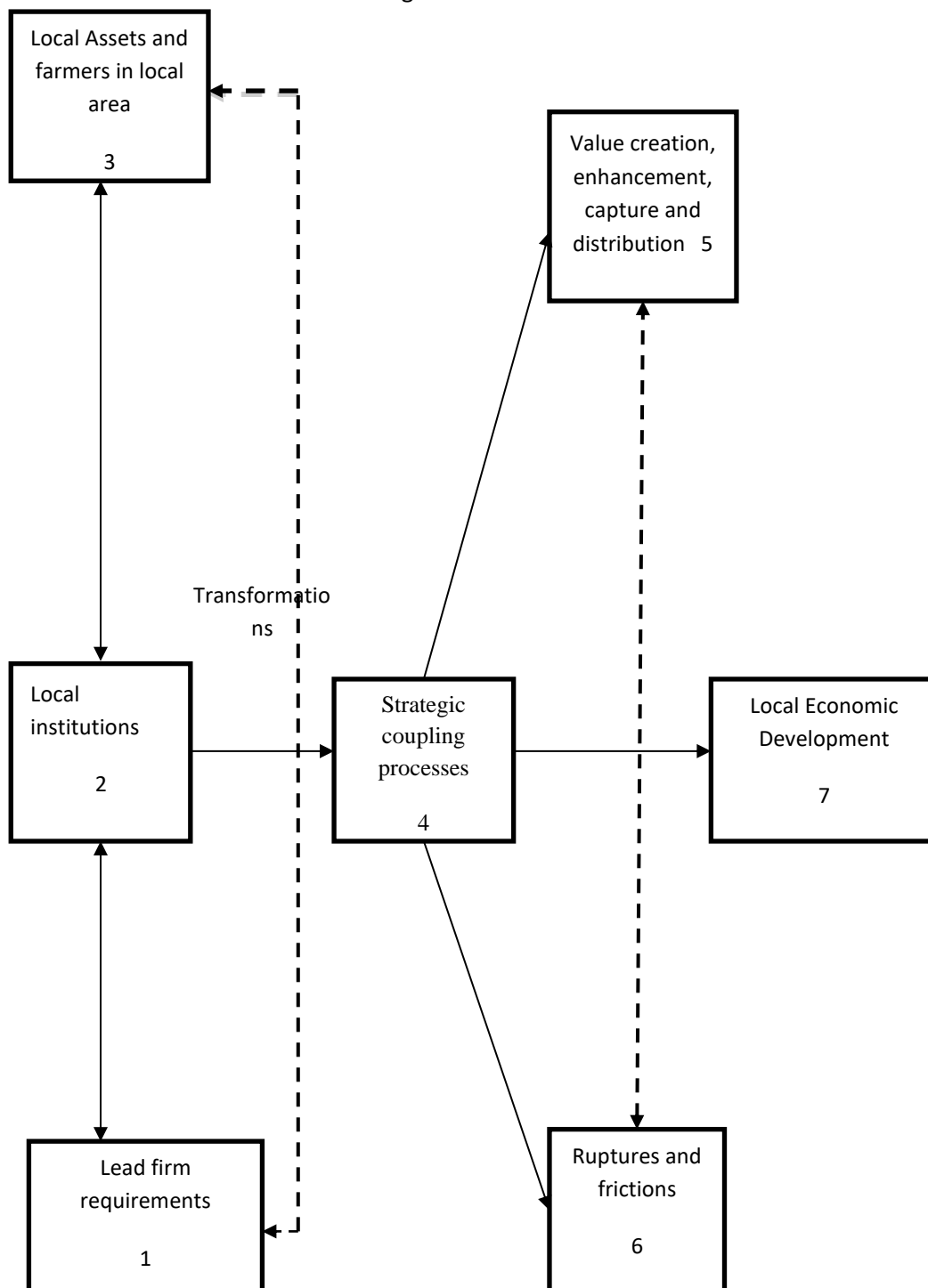
International tobacco-processing companies source a majority of their tobacco needs from Tabora Region in the western part of the country. This region produces more than 60% of Tanzania’s total tobacco production, and around 45,000 smallholders located within Urambo District alone produce about 68% of the region’s total tobacco production (Annual Agricultural Sample Survey Report, 2014/2015). About 90% of the local government revenues collected from the district’s own internal sources come from the tobacco crop cess. This means that the district is greatly dependent on crop dynamics. The fieldwork was conducted between August 2015 and November 2016. During this period, a household survey and semi-structured qualitative interviews were conducted in two different phases of data collection.

Phase one entailed a household questionnaire survey. As farmers are organized into different PCSs, a simple random sampling technique being used in obtaining representative PCSs linked through contract farming to each of the three tobacco-processing companies working in Urambo. Eleven out of 41 active PCSs were chosen at a ratio of 6:3:2 for companies I, II and III, respectively. Selection of households was based on a list of all registered farmers in a PCS provided by the PCS leaders. From this sampling frame, systematic random sampling was used to obtain a total of 228 household heads to constitute the desired sample size from each PCS. The total number of farmers was then divided by twenty. This was based on the smallest number of members in the smallest PCS, which was 65, and the rule of thumb in statistics is that at least 30% of the population should be used. The quotient became the nth household taken into the sample. The types of data that were collected from these household surveys include basic household particulars, ownership and use of land, household incomes, investments made by households in the last three seasons and access to and use of inputs.

In phase two, in-depth qualitative interviews were conducted with representatives of the three tobacco-processing companies at their headquarters in Morogoro and eleven PCS leader committees (on average five persons per PCS) in the villages in order to assess the tobacco value chain and strategic coupling from a local perspective. In order to obtain a thorough understanding of the type(s) and range of relationships prevailing in the chain, similar sets of questions were developed for both categories of interviewees. These themes included tobacco production trends and requirements, tobacco-processing company sourcing strategies (including their CSR strategies), relations between tobacco-processing companies and PCSs, as well as the scope of the relationship, selection criteria and procedures, and investments made by PCSs. In addition, six in-depth focus-group discussions were held with smallholders selected after the initial analysis of the data obtained through the questionnaire survey. The main themes included in the focus-group discussions were group formation processes, PCS debts and debt recovery, distribution of production volume quotas, side-selling practices, and the inclusion and exclusion of farmers in farmer groups.

The analysis and interpretation of these data entailed a detailed examination of the nature and scope of the relationships between smallholders, PCSs and tobacco-processing companies, as well as investments made by smallholders, PCSs and the Urambo District authorities in tobacco production. The analysis of strategic coupling takes its point of departure in the division of labour between the tobacco-processing companies and PCSs, as well as the latter's means and ability to fulfil the imposed requirements as indicators of complementarity and strategic interests between international capital and local institutions thus resulting in value creation and enhancement. In order to analyse local economic development, all investments identified at the smallholder, PCS and district levels were used as a proxy for or indication of value capture and value distribution as indicated in the theoretical framework (Figure I).

Figure 1: Theoretical framework



Source: authors' compilation adapted from Coe and Hess (2011)

At the PCS and district levels, an assessment was made of how such levels were (or were not) able to capture and distribute the value created by tobacco production. PCSs are responsible for collective resources obtained through members' contributions charged on tobacco sales, while the district collects revenues through the crop cess and decides how it should be spent at the community level. At the smallholder level, investments were categorized into three categories: pure domestic

consumption; domestic assets with no potential for income generation; and all agricultural and non-agricultural assets with a potential for income generation. Through thematic analysis at the farmers' level, it was possible to establish factors that influenced specific types of investments made by farmers in particular production seasons.

## **4. Findings and discussions**

### **4.1. Contract farming and the role of primary cooperative societies**

During the early years of the post-liberalization era, international tobacco-processing companies developed a tightly coordinated contract farming scheme through a joint venture company, the Association of Tanzanian Tobacco Traders or ATTT. The two tobacco-processing companies established the strategic alliance in order to improve crop quality and yields as well as preventing side-selling practices among smallholders. Inputs of credit were distributed through PCSs; the costs of inputs being deducted when the smallholders sold their tobacco production to ATTT through their respective PCSs. The required inputs were based on estimated needs according to land allocated for tobacco cultivation. In order to be entitled to the credit facilities, individual smallholders form small groups and register with a PCS to become members during a specific production season. ATTT's mandate to supply inputs on credit to PCSs was removed at the end of the 2000s when the input distribution system was transferred to the regional cooperative union by the government. Currently, the input supply system is vested in the hands of the Western Zone Tobacco Cooperative Union (WETCU), an umbrella organization for all PCSs. WETCU procures the required aggregated inputs and hires private companies to distribute inputs to the PCSs at a fee payable by the PCSs immediately upon delivery (see also Ilembu et al., 2017; Makoye, 2018 for elaboration). However, smallholder tobacco production continued to develop under 'close supervision' and the relatively high intensity of extension services provided by the ATTT. Field technicians are assigned to specific geographical units and mandated to monitor and disseminate information on on-farm husbandry practices and post-harvest management to smallholders on a regular basis (see Table 1).

The PCSs are local intermediaries between smallholders and the tobacco-processing companies. This is consolidated by means of a contractual agreement between the tobacco-processing companies and the PCSs. The contract includes details regarding the division of labour and the respective parties' responsibilities in relation to input supply and marketing obligations. In addition, and more recently, the contract stipulates the obligations of the PCSs to ensure that members act in accordance with good agricultural practice and comply with reforestation and labour-practice requirements. By signing the contract, the PCS specifically agrees to comply with the stipulated requirements contained in it, as do the other parties to it, namely the tobacco processing company and WETCU in respect of input supply.

Table 1. Responsibilities and obligations between tobacco-processing companies and PCSs

Requirements	Tobacco-processing companies	PCSs
Monitoring good agricultural practice		
Input use	Extension services	Supervisory and monitoring role
Proper number and improved curing barns	Technical support	Inspection and monitoring role
Prevention of child labour	Knowledge dissemination	Monitoring role
Safe working conditions	Availability of personal protective equipment	Monitoring their use
Planting trees	Issuing of trees and extension services	Monitoring role
Availability of volume required	Determining production quotas of individual PCSs	Determining volume quotas of farmers; monitoring production; monitoring side-selling practices

Source: authors' fieldwork, 2016

#### 4.2. Input credit scheme

Until recently, the PCSs have mainly performed a key coordinating and monitoring role in the input credit scheme. Individual PCSs enter into a contract with a commercial bank as the financiers of input loans, while WETCU coordinates the procuring of inputs on behalf of the PCSs. Securing the loan is followed by the delivery of inputs by the contracted supplier. Since payments for the delivered inputs are made promptly, PCS leaders are obliged to write a payment cheque authorizing a money transfer from their account into the input supplier's account. Inputs provided on credit to smallholders are based on the actual number of tobacco plants on each acre cultivated. To ensure that inputs are distributed according to requirements, PCS leaders conduct an inspection of each individual farmer's field and count the actual tobacco plants in each acre under cultivation. In collaboration with the tobacco-processing companies' extension officers, PCS leaders are also obliged to ensure the proper use of inputs by member farmers during the cultivation season. After each round of tobacco selling (the so-called 'market'), the PCS leaders (the accountant and the manager) prepare a schedule of payments (payment voucher) for all farmers who have sold their tobacco in the respective market. The payment schedule provides details of the number of kilograms sold and the input loan amount extended to each farmer. This information is submitted to the tobacco-processing company for reconciliation of the actual debts of the farmers. After confirmation by the tobacco-processing company, PCS leaders have to negotiate the prevailing exchange rate at the bank, since farmers receive their payments in Tanzanian Shillings (interviews with tobacco companies, Morogoro, September, 2016).

Where there are significant side-selling practices by (groups of) smallholders, input loans have to be covered from the PCS's own financial means. As such, the PCSs' financial sustainability rests with its members' loyalty and readiness to repay input loans. In order to prevent side-selling, PCSs request farmers to join a farmers' group and provide evidence that member farmers are willing to guarantee him or her as a peer member of the group. Acceptance in a farmers' group is a preliminary indication of one's trustworthiness and possession of some tangible assets that can act as collateral.

In the event of a loan default by any member of the group, other members bear the responsibility for the repayment of the input loan (interviews with PCS leaders, Urambo, October 2016).

#### **4.3. Agricultural practices and the allocation of production volumes**

Apart from coordination and monitoring of the input credit scheme, the tobacco-processing companies have imposed two more recent requirements on the PCSs. The first is the monitoring of 'good agricultural practices', which refers not only to rules regarding the application of agrochemicals, but also to the provision of sufficient barns for curing tobacco leaves. In addition, in order to meet environmental concerns and counter deforestation (as tobacco requires substantial amounts of wood for the curing process), the contract specifies the number of trees that each PCS member is obliged to grow. Initially, the tobacco-processing companies supplied tree seedlings for planting free of charge to the PCSs for distribution to all their members. However, due to farmers' reluctance to plant and provide husbandry to the tree siblings, farmers are now required to take the trees on credit, while the costs are recovered by deducting them from their returns from tobacco sales. The PCS boards are obliged to distribute a specific number of trees at a specified cost per tree to each member and to keep records of trees provided on credit to the farmers so that costs can be deducted during the marketing season. Meanwhile, the tobacco-processing companies' extension officers monitor tree development by counting the surviving trees in the fields. This assessment forms the basis for the compensation the tobacco-processing companies pay to farmers for having planted and provided husbandry to the trees. In addition, concerns about the deforestation of woodland have spurred a number of initiatives to increase land allocated to trees for tobacco production. For example, the tobacco-processing companies have encouraged PCS leaders to negotiate with their village leaders for the acquisition of land for tree cultivation. Currently, a policy of a 60-40 percentage split is implemented, whereby 60% of the acquired land is allocated to farmers for tree planting, while the remainder is allocated to trees planted by the tobacco-processing companies (interview with PCS leaders, September 2016, Urambo; tobacco companies, August 2016, Morogoro).

In addition, the PCSs are required to ensure that their members comply with specific labour practices such as using protective gear when applying toxic pesticides, but more importantly, to prevent child labour in tobacco farming. As an important implementation unit, PCS leaders are involved in campaigns jointly organized with the tobacco-processing companies to create awareness of the potential hazards to children's health and deprivation of their right to education. According to the PCS leaders we interviewed, they take this as a dual responsibility between tobacco-processing companies and themselves in order to ensure continuity of business. If child labour is observed in a field and the farmer is reluctant to stop using it, PCS leaders either report the case to the village government or tell the tobacco-processing company's extension officers to record the farmer for non-compliance with the stipulated requirement in the contract.

Since the 2013/14 cultivation season, and against a background of increasing land allocations to tobacco production followed by a severe drop in tobacco leaf prices, the tobacco-processing companies introduced production volume quotas (see Table 2 below). PCS leaders monitor and supervise the allocation of production volumes based on members' own (desired) estimated production levels. Aggregated production volumes are submitted to the tobacco-processing company for approval through the district cooperatives officer and regional cooperatives registrar. After approval or re-estimation by the tobacco-processing company, the PCS leaders conduct a thorough inspection of the required farm facilities, such as the number of barns, the number of trees

planted and the labour available for tobacco cultivation. This monitoring process appears quite simple if the quota allocated falls within the farmer's initial estimates or even above them. However, this task becomes more difficult to undertake if the approved volume is below the initial estimates (this point will be returned to below). In order to allocate fixed production volumes to farmers, some PCS leaders call upon one farmer at a time and, based on the selected criteria, discuss with him or her until a consensus on the appropriate volume allocation is reached. In other PCSs, leaders prefer to hold discussions with a whole farmers' group where all members are allowed to comment on each other's allocations. According to these PCS leaders, this process is meant to make sure that no complaints are directed at PCS leaders later on should any of the farmers default (interviews with PCS leaders, October, 2016).

As illustrated in Table 2, the production volumes allocated to each PCS varies between cultivation seasons. This is not only related to the fluctuations in global demand for tobacco in a particular year, but also to the extent to which a PCS ensures crucial on-farm compliance with good agricultural practices, the prevention of child labour and loyalty in terms of a reliable supply of tobacco. The variation of production volumes allocated to PCSs does not depend on which tobacco-processing company a PCS is engaged with: different PCSs engaged with the same company may be allocated different volumes. For example, PCS I had been allocated high volumes consistently in all three years. However, members still complained that the allocations were still below farmers' production capacities. Conversely, PCS III had been allocated low volumes in all years, apparently because of a lack of compliant production processes and loyalty (ref: interview with PCS III leaders, October 2016). By means of this tightly coordinated contract farming scheme, the tobacco-processing companies are assured of a reliable supply base and, to some degrees, at least, are guaranteed smallholder compliance with key product and process requirements (agricultural and labour practices). As revealed above, PCSs are the main mediating entity between the tobacco smallholders and the tobacco-processing companies, and they perform a key-coordinating role in input credit distribution, collecting and trading tobacco to the latter.

Table 2. **Production volumes allocated to PCSs (2012-2015)**

PCS	2012/2013	2013/2014	2014/2015
I	670,000	720,000	900,000*
II	500,000	350,000	500,000*
III	25,000	30,000	24,300
IV	50,000	65,000	93,000***
V	170,000	200,000	220,000
VI	150,000	160,000	70,000*
VII	540,000	670,000	650,000*
VIII	130,000	169,000	74,000**
IX	350,000	400,000	500,000*
X	400,000	986,000	600,000*
XI	127,000	160,000	212,000

\*Wanted to produce more but were allocated less

\*\*Produced less but were allocated more quantity

\*\*\*Were allocated 70,000 but increased after their request was granted

**Source: authors' fieldwork 2016**

#### 4.4. Outcomes of successful strategic coupling between international capital and local assets

The successful compromise between large international tobacco-leaf companies and tobacco cultivation through contract farming arrangements has had a marked impact on socio-economic development in Urambo. A significant part of Urambo District Council's revenues come from the so-called crop cess; a levy charged on the number of kilograms each tobacco processing-company has bought after tobacco sales in a specific season. For almost a decade, the companies paid a levy of five per cent on all tobacco purchased at the agreed average price. For several years, tobacco production in the district has generated around 90% of the income collected from the council's own internal sources. Hence, the district's financial budget is highly dependent on the crop cess not only as a financial means to support district development, but also to provide a 'buffer zone' in the case of budgetary constraints, as a representative of one of the tobacco-processing companies explained: 'although the money would normally be paid at the end of the season, it happens sometimes that the district may ask us to pay it as advance payment' (interview with representative of tobacco-processing company I, Urambo, August, 2016).

According to budgetary directives issued by the central treasury every year, the collected revenues should be allocated in the ratio of 40%/60% for development and recurrent expenditure respectively (interview with District Economist, Urambo, September, 2016). The law specifies that about 60% of the revenue collected from the crop cess must be reinvested in tobacco production, divided equally between the district's Department of Agriculture to facilitate extension services and training to tobacco farmers and the villages where the value is originally generated. In financing various development projects such as education and its infrastructure, the district uses the remaining 40% of the crop cess. Revenues from the crop cess have facilitated investments in bulldozers for road construction and maintenance and made all feeder roads in the district passable all year round. Furthermore, since 1995 the number of secondary schools has increased significantly, from just one secondary school covering all sixteen wards in the district to the establishment of a secondary school in each ward. As one of the district's representatives emphasized:

*Actually, Urambo was the first District in Tabora region to achieve 100% laboratory buildings construction and equip them fully with all requirements in every secondary school without involving citizens' extra contributions as it was done elsewhere in the country. Tobacco is so huge in terms of provision of social services. There are times when we are the second after Ilala municipality in Dar es Salaam in terms of own source collections* (interviews with the District Agriculture, Irrigation and Cooperatives Officer at Urambo, 2015).

At the PCS level, the number of members in a PCS, the purchasing price of tobacco leaves during the marketing season and the volumes allocated to each PCS are important factors in raising revenues, which, in addition to the extent of side-selling practices by member farmers, determine each PCS's investment trajectory. A tobacco fee for the PCS's 'development fund' is charged on each kilogram of tobacco sold by the members. The fee is discussed and settled at general meetings every year and might differ from one PCS to another and from one year to another, depending on the PCS's current investment plans of the. The average amount charged is 30 TShs/kg. As indicated in Table 3, investments made by the PCSs entail physical and non-physical investments for serving PCS members in various tobacco production activities, without which farmers would incur

significant costs if such services were acquired from private companies. These investments include storage facilities (godowns), trucks, tractors and office buildings. Member farmers are able, for example, to hire trucks and tractors at a reduced rate agreed upon at general meetings, while village members are able to rent equipment at the on-going market price, which generates further income for the PCSs. In addition, the PCSs contribute to community and village development in the form of in-kind contributions to the construction or maintenance of public goods such as education, health care, and clean and safe water. For example, in addition to the compulsory contribution of 10 TShs per kg sold, PCSs I, III, X and XI have provided school desks and constructed a dispensary, a classroom and a female student's hostel in their villages respectively.

**Table 3. Investments made by PCSs between 2010 and 2015**

PCS	Investments
I	Trucks, godowns, motorcycle, office building and shares with CRDB Bank
II	Truck, godowns, motorcycle, office building and trees planted on a five-acre area
III	Office building, a godowns and a tractor
IV	A tractor and 144,000 shares with CRDB Bank
V	Godowns, office building and a truck (latter sold in 2014)
VI	Two godowns
VII	Godowns, office building, a tractor and a truck
VIII	A godown, trees planted over 7 acres
IX	A truck, bought house to transform it into an office and a godown
X	Office building, godowns, a truck and a tractor
XI	72,000 shares with CRDB Bank, health insurance for all farmers, godowns, office building

Source: **interviews with PCSs leaders, Urambo, September-October 2016**

Taken together, investments made by PCSs might have direct development impacts not just for member farmers, but for all community members as well, by contributing to the construction and maintenance of local public goods and services. The financial capacity to invest in both tobacco-related reproduction facilities (e.g., godowns, trucks) and public goods arises from pivotal PCS-specific characteristics such as numbers of members, production capacities (including the volume allocations), leadership qualifications and rates of side-selling among members. Falling production quotas were reported by several PSCs we interviewed, threatening not only the sustainability of the PCSs, but also the livelihoods of the farmers, as expressed by one PCS leader:

*When you have few kilograms allocated to you, you also have to select few farmers to give them [to]. It happens that sometimes farmers have to grow just one acre, even though they wanted more. For example, there are currently 213 members in this PCS, but we have only 37 farmers who have received inputs and therefore will grow tobacco. You cannot expect anything under this situation (interviews with PCS III leaders, October 2016).*

The widespread integration of smallholders into tobacco cultivation is an important yardstick in influencing livelihood opportunities and livelihood diversification in Urambo. An increasing number of young people are requesting admission as members of a PSC, and the economic dynamics at the household level are heavily dependent on the dynamics of the tobacco value chain. About 13%, 21.5% and 18.4% of the farmers in the survey had invested in new income-generating businesses during the 2014/15, 2013/14 and 2012/13 cultivation seasons. As indicated in Table 4, investments in new economic activities are directly linked to revenues from tobacco cultivation. Households have been able to diversify their incomes by investing in brick-laying, food-vending, chicken sales, the provision of transport services by motorbike, shops and bicycle repair services. Apart from providing alternative sources of income and hence resilience to fluctuations in world market tobacco prices and production quotas, new economic activities at the community level create spin-off effects in creating employment opportunities, thus stimulating growth further by supplying products in demand by the rural population.

However, the patterns of local economic development through the creation, capture and re-distribution of value revealed above mask important power asymmetries which create ‘frictions’ (Yeung, 2014: 9) and tensions between PCS leaders and farmers and uneven value capture among the members of a PCS, as well as between PCSs in Urambo District.

**Table 4. Business establishments by farmers and sources of capital for investments (% in brackets)**

PCS	Frequency	Source of capital for the business established				
		Tobacco	Other crops	Bank loan	Family and friends	Other sources
I	13 (59)	11 (84)	2 (15)			
II	6 (24)	5 (83)			1 (16)	
III	6 (28)	4 (66)	2 (33)			
IV	4 (19)	4 (100)				
V	5 (29)	4 (80)	1 (20)			
VI	8 (42)	7 (87)		1 (12)		
VII	12 (54)	10 (83)			1 (8)	1 (8)
VIII	6 (27)	4 (66)		1 (16)		1 (16)
IX	8 (44)	7 (87)		1 (12)		
X	9 (50)	8 (88)		1 (11)		
XI	11 (50)	8 (72)	2 (18)			1(9)

**Source: authors’ survey, 2015**

#### **4.5. Strategic coupling and the resulting frictions and tensions**

As revealed above, an increasing number of responsibilities are being imposed on the PCSs by the tobacco-processing companies in order for them to ‘tap’ into the tobacco value chain and reap and capture the economic benefits for local development. While PCSs had a coordinating role in input credit distributions and purchases and sales of tobacco from member farmers even before the sector was liberalized in the mid-1990s, more recently they have been obliged to ensure that their members act in accordance with good agricultural practice and comply with reforestation and labour requirements. Furthermore, the PSCs are responsible for the distribution of production volumes to each member farmer.

As illustrated in Table 5, the PCSs' coordination and enforcement capabilities appear strong in relation to input distribution to farmers and distribution of production volumes to member farmers. In many cases, and notably with decreasing production volumes, this system leads to tensions and conflicts between farmers and their PCS's leaders. In some cases, the bargaining capacity of the PCSs to circumvent the allocation of low production volumes is limited, as pointed out by several PCS leaders:

*Poor production of the PCS may lead to being discontinued by the tobacco-processing company. A good example is our PCS: we were dropped because of problems, and we have remobilized ourselves for more production, but it is becoming impossible due to continued low allocation that the company insists on* (interviews with PCS VI and PCS VIII leaders, Urambo, October 2016).

**Table 5. PCS responsibilities, means of execution and enforcement capabilities**

<b>PCS Responsibilities</b>	<b>Means of execution</b>	<b>Enforcement capabilities</b>
Ensuring input supplies	Acquisition from third-party suppliers and WETCU	Weak
Input distribution to farmers	Inspection at farms and counting tobacco plants (board members)	Strong
Ensuring proper input usage	Monitoring through zones (board members)	Fairly weak
Ensuring contracted production volumes are met	Formation of farmers' groups Ensuring that all farmers produce the allocated volumes (PCS leaders)	Strong
Elimination of child labour	Monitoring (board members)	Fairly weak
Ensuring safe working conditions	Inspection at farms (board members)	Fairly weak
Controlling side-selling	Monitoring by farmers' group members and board members	Fairly weak

**Source: authors' fieldwork, 2016**

Leadership qualifications and transparency in selecting and allocating production volumes to individual farmers will often have a decisive influence on the loyalties of member farmers. In some cases, PCS leaders allocate production volumes so as to benefit relatives or friends, creating distrust regarding the general conduct of the PCS leaders and possibly 'trickling' into side-selling practices by farmer members (Focus group discussions, Urambo, October 2016). Side-selling practices and conflicts over loan recovery have become more acute, as many PCSs' financial performances have come under intense pressure (in 2015, side-selling by PCS members varied between 5% and 70%). Side-selling practices not only adversely affect the PCS's revenues, they also pull back individual farmers economically, as the farmers' group arrangement is based on collective responsibility for repaying the input credit. As one tobacco farmer stressed:

*It is not only very painful to pay for another person who side-sold their tobacco but also pulls us back in terms of development because if you are charged 100,000 TShs for repaying someone's debt, this same money would have been used to buy a bundle of corrugated iron sheets for a house roof* (Focus group discussion, Urambo, October 2016).

Tensions and conflicts over loan recovery have a distinct power aspect, as individual farmers are responsible for monitoring their peers' side-selling practices, but they have no legal power to deal with malpractices by member farmers. In cases of severe loan defaults by member farmers, some PCS leaders closely follow up in order to ensure partial or full recovery of loans. However, PCS leaders who insist on ensuring the collective recovery of debts might find themselves being greatly hated by defaulters to the extent that this might threaten their safety in the community, as pointed out by several participants at farmer group discussions, here articulated by one PCS leader:

*Most PCSs collapse because of emanating conflicts on loan recovery. It becomes a trigger for conflicts because, if you keep on following up, one would ask you if the money is yours! So, even if you were very strong before, you slowly become weak and speechless due to fear of insecurity. My chairman had his house set on fire because of being aggressive in following-up debts from farmers who had defaulted (interviews with PCS VI leaders, October 2016).*

These conflicts appear to surface not only because of malpractices by member farmers, but also because of the way some PCS handle debt recovery and the issue of transparency, especially within farmers' groups. In some instances, where PCS leaders are taking further measures, such as reporting side-selling practices to a court of law or village administrations, they are forced to become the main applicants against defaulters. In these cases, however, interference by local politicians and government officials might jeopardize the court of law, as one PCS leader explained:

*When we take a person to a court of law, PCS leaders and farmers in respective farmer groups become witnesses in court proceedings. There have been some tensions between different parties on this. For example, in one instance, the ward councillor went to the magistrate demanding that the alleged defaulter be set free because of political interest. Despite all these, we cannot accept our PCS to be destabilized because of political power interests. Even the village leaders get involved in these cases. There are farmers who default [on] their PCSs in the neighbouring villages and opt to come to join ours. When we find them misbehaving, we take them to court, but their village and political leaders don't accept this for political reasons. Such things put our social relationships at stake (interview with PCS X leaders, September 2016).*

Tension and conflicts not only surface between farmers and their respective PCSs leaders, they also tend to involve politicians and government leaders, resulting in low(er) levels of law enforcement to induce all farmers to comply with their contractual obligations. This not only threatens the effective functioning of PCSs, it also creates social disharmony in the tobacco-producing communities.

## **5. Conclusions and recommendation**

The aim of this paper has been to explore the outcomes of successful strategic coupling between local assets and international capital in a district that is dependent on a single agricultural economy. Tobacco is widely cultivated and has become a 'backbone' of the local economy in Urambo District, one with a high incremental potential for spin-offs in agriculture, as well as non-agricultural economic activities. As revealed in the analysis, the pivotal institutional nexus between international tobacco-processing companies and smallholder tobacco farmers is the PCSs. These perform a key coordinating and monitoring role in implementing contract farming (inputs on credit and marketing)

in addition to allocating production volumes to member farmers. The successful coupling of local resources and institutions with the needs of lead firms in the global tobacco value chain has had a marked impact on local economic development in Urambo District. Value is captured at both the district and PCS levels and redistributed or invested in public goods (e.g., school facilities, roads, agriculture-related equipment), while smallholders invest their revenues from tobacco cultivation in non-agricultural economic activities.

In recent years, the PCSs are increasingly taking over more operational responsibilities from the tobacco-processing companies, despite their power of execution being seemingly more limited in many ways. Their ability to ensure conformity with key requirements such as good agriculture and good working practices along with limiting side-selling depends critically on their leadership qualifications. This in turn affects the financial means required to move local community development in a certain direction. Some tobacco farmers and PCSs have captured and reaped economic benefits for local development by tapping into the tobacco value chain, thus becoming relatively better off than other PCSs and smallholder farmers. A tendency towards differentiation is observable both among PCSs and among farmers within them who are engaged in tobacco production in Urambo, raising questions regarding successful strategic coupling and local patterns of socio-economic development and spatial inequalities.

While further research is needed on the longer-term impacts on uneven local economic development, our research indicates the ‘dark side’ that has been experienced regarding successful ‘need-matching’ at local communities in Urambo. Tensions and frictions are nested in the relationship between PCS leaders and member farmers, resulting from conflicts over value capture and enforcement of the requirements imposed by the tobacco-processing companies in recent years. In part this has led to a less inclusive alignment process, as some farmers are directly excluded from the contract farming scheme as a result of the limited production volumes allocated to specific PCSs. On the other hand, other farmers are indirectly disadvantaged due to the overburdening of unrecovered debts from their defaulting farmer group members. Tensions and conflicts at the community level do not appear to have any direct negative consequences for the tobacco-processing companies’ ability to secure a reliable supply base. In part, this is due to the uneven (and unchallenged) power relations prevailing between PCSs and the international tobacco-processing companies, which allows the international companies to dictate the conditions for smallholder integration into the global tobacco value chain. Thus, the paper recommends to policy makers to formulate investment policies that focus on capacitating citizens in general and farmers in particular with a view to enabling to meet investors’ requirements in order to achieve mutual benefits from such investments. Theoretically, the paper has shown how studies focusing on aligning foreign direct investments (FDIs) with local resources need to go beyond the mere focus on dynamic processes (e.g., de-coupling, re-articulation (Yeung, 2015: 9)), in order to capture and broaden our understanding about the complexity of ‘real-world experiences’ at the local community level in the wake of successful investments.

### **Acknowledgements**

I acknowledge the support extended to us by the Danish International Cooperation (DANIDA) via grant number 13-P03-TAN, which provided full financial support for data collection through the POLICOFA project. I am also grateful to the research assistants and all tobacco stakeholders for their cooperation during the study.

## **6. Bibliography List**

**Books and Book Chapters:**

- Bair, J. (2009). *Global Commodity Chains*. In J. Bair (Ed.), *Frontiers of Commodity Chain Research* (pp. 1–34). Stanford University Press.
- Boesen, J., & Mohele, A. T. (1979). *The “Success Story” of Peasant Tobacco Production in Tanzania*. Scandinavian Institute of African Studies.
- Kuzilwa, J. A., Fold, N., Henningsen, A., & Larsen, M. N. (Eds.). (2017). *Contract Farming and the Development of Smallholder Agricultural Business – Improving Markets and Value Chains in Tanzania*. Routledge Earthscan Food and Agriculture.
- Mitchell, D., & Baffes, J. (2002). *Tanzanian Agricultural Export: Challenges and Constraints in a Global Economy*. The World Bank.
- Neilson, J., & Pritchard, B. (2009). *Value Chain Struggles*. Wiley-Blackwell.
- URT. (2016). *Annual Agricultural Sample Survey Report (2014/2015)*. Dar es Salaam.

**Journal Articles:**

- Bair, J. (2005). Global Capitalism and Commodity Chains: Looking back, going forward. *Competition and Change*, 9(2), 153–180.
- Barrientos, S., Gereffi, G., & Rossi, A. (2011). Economic and social upgrading in global production networks: A new paradigm for a changing world. *International Labour Review*, 150, 319–340.
- Coe, N. M., Dicken, P., & Hess, M. (2008). Global Production Network: Realizing the potential. *Journal of Economic Geography*, 8(3), 271–295.
- Coe, N., Hess, M., Yeung, H. W.-C., Dicken, P., & Henderson, J. (2004). ‘Globalizing’ regional development: A global production networks perspective. *Transactions of the Institute of British Geographers*, 29, 468–484.
- Dolan, C., & Humphrey, J. (2004). Changing governance patterns in the trade in fresh vegetables between Africa and the United Kingdom. *Environment and Planning A*, 36, 491–509.
- Fold, N. (2014). Value chain dynamics, settlement trajectories and regional development. *Regional Studies*, 48(5), 778–790.
- Gereffi, G. (1999). International trade and industrial upgrading in the apparel commodity chain. *Journal of International Economics*, 48, 37–70.
- Gereffi, G., Humphrey, J., & Sturgeon, T. (2005). The governance of global value chains. *Review of International Political Economy*, 48(1), 78–104.
- Gereffi, G. (2014). Global value chains in a post-Washington Consensus world. *Review of International Political Economy*, 21(1), 9–37.
- Humphrey, J., & Schmitz, H. (2002). How does insertion in global value chains affect upgrading in industrial clusters? *Regional Studies*, 36(9), 1017–1127.
- Kadarusman, Y., & Nadvi, K. (2012). Competitiveness and technological upgrading in global value chains: Evidence from the Indonesian electronics and garment sectors. *European Planning Studies*, 1–22.
- Lee, J., Gereffi, G., & Beauvais, J. (2010). Global value chains and agrifood standards: Challenges and possibilities for smallholders in developing countries. *PNAS Early Edition*, 12326–12331.
- MacKinnon, D. (2012). Beyond strategic coupling: Reassessing the firm-region nexus in global production networks. *Journal of Economic Geography*, 12, 227–245.
- MacKinnon, D. (2013). Strategic coupling and regional development in resource economies: The case of the Pilbara. *Australian Geographer*, 44(3), 305–321.
- Nielson, J., Pritchard, B., Fold, N., & Dwiartama, A. (2018). Lead firms in the cocoa-chocolate global production network: An assessment of the deductive capabilities of GPN 2.0. *Economic Geography*, 94(4), 400–424.
- Ponte, S., & Ewert, J. (2009). Which way is “up” in upgrading? Trajectories of change in the value chain for South African wine. *World Development*, 37, 1637–1650.
- Selwyn, B. (2013). The global retail revolution, fruiticulture and economic development in North-east Brazil. *Review of International Political Economy*, 20(1), 153–179.
- Tokatli, N. (2013). Toward a better understanding of the apparel industry: A critique of the upgrading literature. *Journal of Economic Geography*, 13, 993–1011.
- Werner, M., Bair, J., & Fernández, V. R. (2014). Linking up to development? Global value chains and the making of a post-Washington Consensus. *Development and Change*, 45(6), 1219–1247.

- Yeung, H. W. (2009). Regional development and the competitive dynamics of global production networks: An East Asian perspective. *Regional Studies*, 43(3), 325–351. <https://doi.org/10.1080/00343400902777059>
- Yeung, H. W. (2014). Regional development in the global economy: A dynamic perspective of strategic coupling in global production networks. *Regional Science Policy & Practice*, 7(1), 1–24.
- Yeung, H. W. (2015). Regional development in the global economy: A dynamic perspective of strategic coupling in global production networks. *Regional Science and Practice*, 7(1), 1–23.

**Theses:**

- Makoye, E. (2018). *Global value chains and local economic development: Evidence from tobacco farmers under contract farming in Urambo, Tanzania* [Unpublished PhD thesis]. University of Copenhagen and Mzumbe University.

**Research Reports / Institutional Papers:**

- Goger, A., Bamber, P., & Gereffi, G. (2014). *The tobacco global value chain in low-income countries*. Duke University: Center on Globalization, Governance and Competitiveness.