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'Remaining poor despite value-addition' An anthropological analysis of value-addition practices and hurdles faced by smallholder coffee farmers in Uganda.

verfasst von / submitted by

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Zusammenfassungen

In dieser Arbeit geht es darum, wie kleinbäuerliche Kaffeebauern in Namayumba versuchen, Wertschöpfungsinitiativen innerhalb der Kaffeepraktiken auf der Farm und außerhalb der Farm einzuführen, um das Einkommen aus der Kaffeeproduktion zu verbessern, aber arm bleiben.

Die Wertschöpfung zielt darauf ab, die Qualität des produzierten Kaffees zu verbessern und das Einkommen der kleinbäuerlichen Kaffeebauern zu steigern. Die hier untersuchten kleinbäuerlichen Kaffeebauern sichern den Lebensunterhalt der Familie durch Subsistenzproduktion, sind jedoch nicht wirtschaftlich isoliert, da sie durch den Verkauf von Lebensmitteln oder Kaffee gegen Bargeld eine Marktwirtschaft betreiben.

Die ethnografische Feldforschung als Methode verschaffte mir Zugang zu wichtigen Informationsquellen und ermöglichte es mir, die Sichtweise der Kaffeebauern zu erfassen. Es ermöglichte mir, die Aspekte des Lebensunterhalts, der landwirtschaftlichen Praktiken und Entscheidungen zu verstehen, um die vor Ort beobachteten Fakten zu beschreiben und zu erklären. Die ethnografische Feldforschung, empirische Datenanalyse, teilnehmende Beobachtung, Interviews und Literaturrecherche haben mir geholfen, diesen Fall theoretisch in der Abhängigkeitstheorie und der Intensivierung der landwirtschaftlichen Produktion zu verankern.

Kleinbäuerliche Kaffeebauern werden im Rahmen eines „Farmer-Ownership-Modells“ mobilisiert, um bei ihren Kaffeepraktiken auf der Farm und außerhalb der Farm einen Mehrwert zu schaffen. Obwohl die Wertschöpfung landwirtschaftlicher Produkte ausführlich diskutiert wurde, wurde die Wirksamkeit bei der Einkommenssteigerung für Kleinbauern von Kaffee nicht eingehend geprüft. Allein die Wertschöpfung auf der Ebene On-Farm und Off-Farm ist zu gering, um den kleinbäuerlichen Kaffeebauern eine nennenswerte Einkommenssteigerung zu ermöglichen. Es bedarf einer unerschütterlichen

staatlichen Unterstützung durch verschiedene Interventionen. Günstige landwirtschaftliche Kreditprogramme für Kaffeebauernverbände. Stärkung der Wertschöpfung, Einführung in die High-End-Kaffeeproduktion, subventionierte Betriebsmittelpreise, kontinuierliche Erweiterungsunterstützung und Schulung zu guten landwirtschaftlichen Praktiken zur Verbesserung der Kaffeequalität, Förderung des lokalen Kaffeekonsums, konzertierte Neuverhandlung von Handelsbedingungen mit internationalen Märkten, um gleiche Bedingungen zu erreichen des Handels, so dass Ugandas Spitzenkaffee ohne Einschränkungen auf den Markt gelangen kann.

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List of abbreviations

Abbreviation/Acronym	Meaning/Definition
AO	Agricultural Officer
AASPs	Agricultural Advisory Service Providers
ASSP	Agriculture Sector Strategic Plan
BCTB	Black Coffee Twig Borer
CBET	Competence Based Education and Training
COREC	Coffee Research Centre
CURAD	Consortium for enhancing University Responsiveness to Agribusiness Development Limited
CWDr	Coffee Wilt Disease-resistant
ED	Executive Director
GAPs	Good Agricultural Practices
NAADS	National Agriculture Advisory Services
NARO	National Agricultural Research Organization
NCFA	Namayumba Coffee Farmers' Association
NUCAFE	National Union of Coffee Agribusinesses and Farm Enterprises
MoE&S	Ministry of Education and Sports
MAAIF	Ministry of Agriculture Animal Industry and Fisheries
OWC	Operation Wealth Creation
UCDA	Uganda Coffee Development Agency
UCFA	Uganda Coffee Farmers Association
UCP	Uganda Coffee Platform

Executive summary

This thesis is about how smallholder coffee farmers organized under the Namayumba Coffee Farmers Association (NCFA) attempt to undertake value-addition within on-farm and off-farm coffee practices and their subsequent engagements under National Union of Coffee Agribusinesses and Farm Enterprises (NUCAFE) and the government. The NCFA is an association of smallholder coffee farmers in Namayumba sub county in central Uganda while the NUCAFE is a private organization that was founded in 2003 to represent the interests of coffee farmers in Uganda. Value-addition is promoted on the premise that it can increase the (financial) value from the coffee value chain for the smallholder coffee farmers when adopted. It involves improving the quality and processes through which coffee undergoes at on-farm and off-farm level in Uganda. My discussion in this thesis is based on fieldwork I conducted between December 2021 and January 2022 in the central region of Buganda of Namayumba in the Wakiso district of Uganda. Conducting ethnographic fieldwork as a method allowed me to comprehend the social lives of the community I studied. The ethnographic data collected, attests to how smallholder coffee farmers strive to improve household incomes by adopting value-addition and new agricultural practices propagated by the Namayumba Coffee Farmers' Association (NCFA) with guidance from the National Union of Coffee Agribusinesses and Farm Enterprises (NUCAFE). NUCAFE has engaged with smallholder coffee farmers under associations and provided guidance on value-addition adoption to safeguard the coffee quality and improve incomes. NUCAFE has on behalf of coffee farmers in Uganda engaged the government leading to the formulation of a new coffee law, an instrument of authority whose aim is to shape agricultural practices of smallholder coffee farmers.

In this thesis, I intend to show how despite adopting value-addition within on-farm and off-farm practices, smallholder coffee farmers organized under the NCFA remain poor. Smallholder coffee farmers are encouraged to adopt the farmers' ownership model in which coffee on-farm practices such as planting, soil and water management, pest and disease control and harvesting as well as off-farm practices of coffee sorting, drying, storing, processing, grading, transporting, are oriented towards value-addition.

Value-addition is envisioned as a strategy through which the coffee intrinsic quality can be improved to increase its value at the world marketplace. This in return would increase income for smallholder coffee farmers in the coffee value chain. Undertaking value-

addition, however, necessitates smallholder coffee farmers to adopt good agricultural practices (GAPs) which intensify agricultural production since more resources in form of farm inputs, land, labour and time in the coffee gardens are often required. The resources are most of the time lacking and scarce among smallholder coffee farmers.

Value-addition to agricultural commodities is promoted under the national development strategy in which agricultural modernisation seeks to increase incomes for rural smallholder farmers. In the case of Uganda, it is not clear how value-addition to coffee elevates incomes of smallholder coffee farmers, especially because there is limited evidence to support this assertion. Value-addition has been promoted in the Uganda coffee sector but the discussion on how and whether it effectively improves incomes of smallholder coffee farmers, has not received rigorous attention. This presents an empirical gap and raises questions on the effectiveness of value-addition programs and the national development strategy.

Studying value-addition programs is relevant so that their effectiveness under given context is understood. Ethnographic research provided me an approach to answer the research question, ‘Why do smallholder coffee farmers in Uganda remain poor despite attempts to increase their income with value-addition programmes?’ Through ethnographic fieldwork, I sought to analyse the widely established notion that growing coffee makes smallholder farmers wealthier in Uganda. Ethnographic fieldwork provided me a better understanding of the predicament of smallholder coffee farmers in Uganda.

The theoretical framework I assess the case with is twofold. Firstly, analysing the agricultural practices of smallholder coffee farmers in Namayumba as a process of agricultural intensification that is driven by economic aspirations and desire to increase household incomes. Agricultural intensification of production entails increasing the productive output per unit of land or labour or to some other fixed quantity (Boserup 1965, 43-44). Various other factors account for agricultural intensification in non-industrialised agriculture contexts. Boserup (1965) has examined population pressure on resources though widely criticised for simplicity in accounting for the complexities of intensification (Morrison 1994). The necessity and sufficiency of labour costs of intensification to raise production concentration has also been analysed (Stone 2001, 173).

Secondly, in consideration of a historic context in which many colonial cash crop economies were established I argue that prioritisation of raw coffee export production for

income growth as a strategy for development is dependency. I intend to analyse this phenomenon through the lens of historical structural dependency (Cardoso & Faletto 1979), an integrated and comprehensive social science framework, which simultaneously combines political, economic, and social analysis to explore the divergent patterns of capitalist development in the Global South (Özekin 2020, 434). I am aware of the limitations of the orthodox dependency theory and despite its theoretical impasse. I find validity in the application of the historical structural dependency to the analysis of contemporary conditions in commodity producing countries in the periphery (former third world) such as Uganda. Coffee export production as a strategy is embedded within unequal international trade structures, which from a dependency perspective are subject to anthropological critique.

At the macro level, a norm that smallholder coffee farmers' incomes increase after value-addition adoption at farm level is well established. The empirical data collected shows otherwise that value-addition in the case of smallholder coffee farmers in Uganda has ramifications. It intensifies agricultural production and this can be costly and risky. Uganda coffee has remained less competitive since the price is determined at world marketplace by the customer. I argue that national development based on raw coffee export production is dependency. Value-addition at the initial stages of coffee production alone as a strategy to increase incomes for smallholder coffee farmers is too marginal because of the structural imbalances in which the coffee commodity trade is embedded.

Key words: Agricultural Intensification, Engagements, Farmer Ownership Model, Intensification of production, Historical Structural Dependency, On-farm and off-farm practices, Smallholder coffee farmers, Value-addition

1 Chapter 1

1.1 Introduction

This thesis is about how smallholder coffee farmers in Namayumba attempt adoption of value-addition initiatives within on-farm and off-farm coffee practices in the prospect of improving incomes from the coffee produce but remain poor. It will discuss the consequent engagements between the coffee farmers' association (NCFA) and the coffee farmers' organization (NUCAFE). It will show that value-addition and the engagements between small coffee farmers association and the coffee farmers' organization NUCAFE are not independent micro processes. These are occurring in interaction with the government development strategy in which coffee export production is prioritized.

Smallholder coffee farmers are people who grow most of the coffee in Uganda on mainly small household owned plots of land of about 0.33 hectares in the central, western and eastern rural regions of Uganda.[1] Value-addition here refers to the process in which on-farm and off-farm coffee related practices aim at improving the quality of the coffee produce in order to attain market share, competitiveness and customer satisfaction at the global marketplace. Value-addition has been promoted among smallholder coffee farmers because it's viewed to increase incomes from coffee produce. On-farm practices involve coffee related processes carried out on coffee farms that include planting, soil and water management, pest and disease control and harvesting while off-farm practices refer to coffee handling practices conducted outside the coffee farm involving sorting, drying, storing, processing, grading, transporting, marketing, exporting, roasting, brewing and consumption.

To answer the research question, 'Why do smallholder coffee farmers in Uganda remain poor despite attempts to increase their income with value-addition programmes?' studying value-addition practices through ethnographic fieldwork provided a relevant approach through which I could describe and explain the interactions and engagements of smallholder coffee farmers. The prospects of value-added agriculture have been discussed, but application and effectiveness among smallholder coffee farmers in Uganda has not been fully grasped. Understanding how and whether incomes of smallholder coffee farmers

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[1] MAAIF, 2013. The National Coffee Policy: Republic of Uganda, Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), Accessed on September 1, 2022.https://ugandacoffee.go.ug/sites/default/files/2022-03/National-Coffee-Policy-August-2013.pdf

are effectively improved requires further evidence-based research. Ethnographic fieldwork as a method provided me an opportunity for deeper comprehension of the study community in its local context in the central region of Buganda of Namayumba in the Wakiso district.

The coffee farmers in Namayumba can be described as mainly smallholder farming households living under scarcity, although not economically isolated. They engage in market economy through the selling of food /cash crops but are also able to provide for a substantial proportion of their livelihood through subsistence production. The quantity of work done in the coffee garden sometimes determines quality of coffee produce especially because smallholder coffee farmers resort to application of variety of agricultural practices including traditional techniques. Small householders apply a wide range of agricultural techniques some involving the use of hoes and often farm intensively (Stone 2001, 165-166).

Ethnographic fieldwork was crucial to understanding the aspects of livelihood, the agricultural practices and decisions of smallholder farmers who grow coffee in Namayumba. It provided me an opportunity to observe and pay attention to the interaction of small details in the field that otherwise would not have been possible through a distant research. Focusing on value-addition practices enabled me to better understand the intricate relations between smallholder coffee farmers and the multiple actors in the coffee value chain. Ethnographic fieldwork as an approach was important for my research because it works from collecting empirical evidence through observations, interviews towards theory (Blommaert & Jie 2020). The ethnography conducted in this case helps me to situate value-addition attempts by the smallholder coffee farmers and the Uganda’s coffee export production strategy within the wider debates on intensification of agricultural production, development and dependency.

In the following section, I will describe the engagements between NUCAFE, and the smallholder coffee farmers mobilized under farmers’ associations. As an umbrella organization for smallholder coffee farmers, NUCAFE has promoted value-addition and has engaged with the government in terms of policy formulation to safeguard quality of Uganda coffee at on-farm and off-farm level. I will describe the farmer ownership model and value-addition as a concept. Furthermore, I will describe value-addition engagements among smallholder coffee farmers, the government and other actors in the coffee value chain in Uganda. It will discuss the field observations and provide vignettes from interview responses to strengthen my points of discussion, as ethnography involves thick description and accounting of facts in their context.

1.2 National Union of Coffee Agribusinesses and Farm Enterprises (NUCAFE)

Coffee farmers in Uganda before 2003 operated under an old umbrella organization, the Uganda Coffee Farmers Association (UCFA) at a time when the coffee sector was experiencing a major crisis. However, in 2003 NUCAFE was founded as a private organization to represent the interests of coffee farmers in the liberalized coffee sector in Uganda and it superseded the UCFA. The founding of NUCAFE in 2003 rejuvenated coffee farmers associations or cooperatives by providing a platform through which to address challenges. NUCAFE embarked on a strategy to improve the position of smallholder coffee farmers in a sector that was facing a crisis. NUCAFE set out to dialogue and forge a way forward including strongly advocating for policy and regulatory reform within the coffee sector. It initiated the formulation as well as influenced the implementation of the Coffee policy and the National Coffee Bill of 2018. NUCAFE has mobilized and organized about 213 coffee farmers' associations, that's about 1.5 million small holder coffee farmers into associations throughout the coffee growing regions of Uganda.

NUCAFE strategic plan for the period of 2008-2012 focused on the farmer ownership model development, through mobilization, organization and institutional development of coffee farmers. Many coffee farmers are smallholders operating under scarcity and alone, often facing multiple challenges at on-farm and off-farm level that require a holistic approach to address. NUCAFE provided an institutional framework through which small coffee farmers associations can collectively address challenges. NUCAFE prioritised lobbying and advocacy for the interests of the smallholder coffee farmers. It also sought attaining financial sustainability for its operation as a coffee farmers' organization. This framework was envisioned to empower the coffee farmers in order to acquire ownership over their coffee including policies, programmes and effective advocacy within the coffee sector. This was seen to improve the standard of living of the small coffee farmers.[2]

Coffee farmers' associations provide the only structure through which fragmented and distantly located smallholder coffee farmers can be mobilized and organized. Through small farmers associations, coffee farmers can take a collective charge of their own affairs but also work in partnership with other stakeholders and actors in the coffee sector. The small coffee farmers associations and NUCAFE, encourage smallholder coffee farmers to undertake value-addition practices and to integrate micro agri-enterprises within their agricultural production. This is encouraged as a survival strategy for small farming households in order to acquire additional incomes especially during the coffee off-season periods. Some smallholder coffee farmers provide coffee seedlings for sale; others produce and provide organic fertilizers for coffee gardens as I will discuss in the thesis.

The ethnographic data was gathered from observations, interviews and informal conversations conducted with the smallholder coffee farmers, the agricultural official in Namayumba and the executive director of the NUCAFE. The data shows how smallholder coffee farmers under the Namayumba coffee farmers' association prospect to improve their household income by adopting value-addition practices under the farmer ownership model.

1.3 The Farmer Ownership Model

The farmer ownership model was introduced by NUCAFE as a way in which smallholder coffee farmers can regain control over the coffee, they produce from coffee traders/middlemen, coffee processors and coffee exporters who buy coffee directly from the smallholder coffee farmers at farm level. Smallholder coffee farmers who by large make up about 1.7 million small farming households that grow coffee on small gardens with a mean plot size of less than one acre[3], are encouraged to take ownership of the coffee produce. Ownership of the coffee is perceived to be attained when smallholder coffee farmers within associations take up more functions within the coffee value chain as a means to capture more incomes from the coffee they produce. Taking up these functions thus requires smallholder coffee farmers to adopt value-addition within their on-farm and

[2] Final Report- Coffee Policy. NUCAFE. 2016. Accessed on November 1, 2022. Final Report Coffee Policy – National Union of Coffee Agribusinesses and Farm Enterprises (NUCAFE)

[3] Uganda Country Coffee profile. n.d. Pp:10. Accessed on November 1, 2022. Uganda Country Coffee Profile 1.pdf (ugandacoffee.go.ug)

off-farm coffee related practices. These functions would for instance include; operating a coffee nursery bed that prepares new coffee varieties that are disease resistant and have a short maturity period; producing organic fertilizers to sell to farmers; installing water irrigation systems in coffee gardens; applying organic fertilizers in coffee gardens; adopting new spacing techniques in coffee gardens; investing in coffee dryers to enable proper coffee drying; hygienic storage; sorting, grading and selling the coffee in given grades to exporters or final customers. Most of these functions are currently performed by coffee traders/middlemen or coffee processors who end up acquiring more profits and gaining purchasing power over the smallholder coffee farmers. In the next paragraph, I will discuss how the farmer ownership model becomes a cornerstone in the adoption of value-addition and how under the guidance of NUCAFE, its conception provides a way for smallholder coffee farmers to regaining power and ownership over the coffee produce.

The farmer ownership model can be viewed as a post-traditional cooperative model in the coffee value chain. The traditional cooperative model entailed coffee farmers subscribing membership to a cooperative society to which they sold their coffee produce at a low but stable price. The traditional cooperative model assumed an intermediary position in which it maximised profit by offering low prices to the farmers or selling coffee at the highest price possible. Traditional coffee farmers cooperatives although mobilized coffee farmers, they offered low prices to the coffee farmers. The impact of this was clearer when such cooperatives became powerful and coffee farmers lost control and ownership to the employees of the cooperatives. The smallholder coffee farmers who produce 98% of Uganda’s coffee have always been policy and price takers ultimately unable to favourably determine their position under such a structure.

1.4 Regaining coffee ownership through value-addition

In the farmer ownership model, rather than smallholder coffee farmers selling their coffee to cooperatives or coffee traders/middlemen, NUCAFE facilitates the small coffee farmers’ associations by providing goods and services. This is perceived to empower the smallholder coffee farmers’ position to upgrade within the coffee value chain. They gain power over the coffee produce by first adding value through the various on-farm and off-farm practices as will discuss in the next paragraph, and then determining the coffee price. Historical positioning is challenged as the coffee farmers’ umbrella organization transforms from a middleman position to instead facilitate small coffee farmers’ associations. The coffee farmers' position is also transformed from a mere policy and price taker to ownership of this process. However, the smallholder coffee farmers must take collective actions towards ownership. They must organize into business-oriented farmer groups and associations, or form into new cooperatives that do not do business with their members but rather facilitate business for their members.

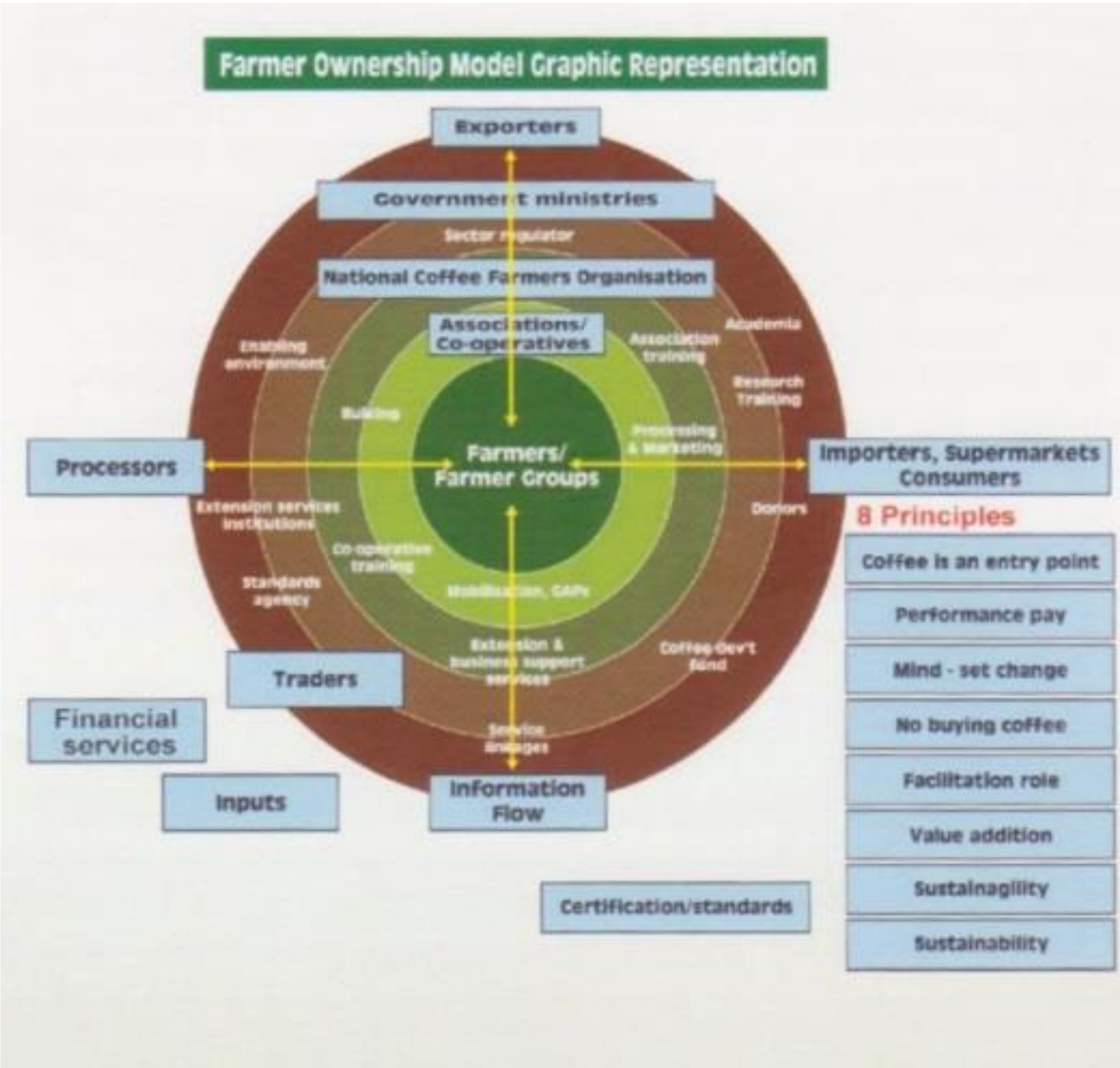
The transformation is also expected to include the coffee traders/processors whose role of buying coffee directly from the farmer is transformed and restricted to providing the service of processing the farmers' coffee at a fee. The coffee farmers instead pay for the coffee processing, retain their coffee produce which they further sort, grade, roast, grind and sell to an exporter or final consumer at an added value and price. The farmers' association must not engage in buying coffee from individual member farmers but instead facilitate value-addition until the coffee is sold to an exporter, roaster or final consumer depending on the sophistication of the farmer association.[4] These different roles are assumed to be taken up by the smallholder coffee farmers from coffee traders/processors who buy the coffee directly from the farmers. Depending on the quantity of coffee produced, the smallholder coffee farmers in their association can brand or form joint ventures (shareholding) and sell at value added price.

The figure 1 below shows the relationship among the actors and stakeholders in the coffee value chain network. Smallholder coffee farmers' groups in villages and parishes numbering 25 to 35 farmers mobilize to adopt value addition, within on–farm and off-farm practices. The value addition practices start with planting disease resistant coffee seedlings, new spacing techniques in coffee garden, application of organic fertilizers, water irrigation systems proper harvesting, drying and storage of coffee, bulking and processing coffee. The second circle represents associations/cooperatives formed out of many farmer groups at a sub county level in each district. The small coffee farmers association at this level provide extension services, coffee bulking groups, coffee ready for processing and creating linkage with NUCAFE. NUCAFE then enhances extension and market driven linkages with exporters, roasters, supermarkets and input technologies with input suppliers. It also engages with government, UCDA and other agencies such as NGOs, donors, academia and research in order to enhance coffee value with the small holder coffee farmers. The model

[4]Farmer ownership model. 2020. Accessed on March 1, 2022. https://nucafe.org/download/farmer-ownership-model-specific-to-coffee-version/?wpdmdl=120&refresh=64739a26876ac1685297702

links other actors such as exporters, importers, buyers, roasters consumers, information service providers to the smallholder coffee farmers. The model recognizes that other indirect actors are crucial for the successful functioning of the model, these include financial institutions, farm input suppliers, certification and standards agencies. These are linked to the small holder coffee farmers through NUCAFE and coffee acts as the entry point. The model seeks to share responsibilities and resources within a network of coffee actors and stakeholders in a sustainable coffee value chain.

Figure 1. The farmer ownership model graphic representation



Source: NUCAFE website

The thesis will discuss the smallholder coffee farmers' value-addition practices and challenges encountered in the process. It will also discuss the engagements between the coffee farmers association and the government. It will show that the farmer ownership model mobilizes the smallholder coffee farmers into collective action under associations, it creates awareness and an extent of adoption of value-addition within on farm and off-farm coffee related practices. It will also show that smallholder coffee farmers are not necessarily keen or cannot be assumed to adopt value-addition practices. Many of the coffee farmers are smallholder households that must negotiate between limited and scarce resources resorting to modest attempts of value-addition and agricultural techniques that intensify production. The incomes gained from coffee sale after value-addition are still marginal in comparison to the cost incurred on farm inputs and other resources during coffee growing. Further analysis is relevant to understand actual impact of value-addition adoption on smallholder coffee farmers' incomes.

In the next paragraph, value-addition as a concept is further discussed to provide some clarity on its logic but also to show that its applicability to agriculture still requires further examination since often value-added is determined by customer satisfaction and willingness to pay for the value adding activity. The engagements between the government under the Ministry of Agriculture Animal Industry and Fisheries (MAAIF), coffee farmers' associations and other actors in the coffee value chain that seek value –addition adoption are also discussed.

1.5 Value-Addition as concept

Value-addition as a concept has economic overtones whose applicability to agriculture ought to be further analysed. Value-addition though widely applied to processes that aim at producing tangible products, as a concept still deserves considerable scrutiny since producers, policy makers and academics alike have not fully comprehended its effective practical application.

Value-addition as a concept has been long measured by economists from a metric point of view and referred to as the difference between value of shipments and the cost of all purchased inputs used in the production (Amanor-Boadu 2003, 2). It has also been broadly applied to firms, industries and sectors to determine value added to economies or gross domestic product (Sato 1976). Value added to products, commodities and services has therefore been an important economic tool used to determine performance of the industries and the economy in general. This economic point of view has increasingly proliferated development strategies of agricultural producer countries and policy makers.

Value-addition from a marketing perspective is believed to occur when tangible and abstract values added to products or services offer customers superior perceived value (Nilson 1998, 3). To agricultural products however, value is perceived to be added when there is a change in the physical state or form of agricultural product. Value-addition to agricultural products can occur when a method of production enhances the product customer base or leads to a greater proportion of a consumer expenditure on the product.[5] It has been further argued that value-addition can occur if actors in the value chain perform an activity that has been performed by other actors positioned downstream in the value chain or if they perform activities that are perceived to be adding value to the product but had been overlooked within the value chain.

Value-addition to agricultural products can take different dimensions, since opportunities are multi-dimensional. Innovation as a dimension of value-addition may for instance involve the adoption of new techniques of production, leading to new products, new markets, although this view is limited to economic and management terms (Gjerding 1997, 16). New products in the Uganda coffee value chain include disease and drought resistant coffee varieties being introduced to smallholder farmers, new spacing techniques in coffee gardens, application of organic fertilizers, and irrigation systems in coffee gardens. However, services along the value chain also provide opportunities for the smallholder coffee farmers for instance operating coffee nursery beds, producing organic fertilizers for sale.

Value-addition opportunities often depend on the needs of the customer and thus the performance of a given value-adding process should lead to customer satisfaction. The table 1 below shows the frame for identifying opportunity slates within value-addition. Smallholder coffee farmers have mainly targeted opportunities within the dimension of product or service, process or method. Focus is on improving and attaining a good quality coffee produce through various on-farm and off-farm practices.

[5] USDA 2002. United States Department of Agriculture. Animal Products Branch, Economic Research Service. Food Marketing and Price Spreads: Farm-to-Retail Price Spreads for Individual Food Items, June 2002, accessed at http://www.ers.usda.gov/Briefing/FoodPriceSpreads/spreads/table1a.htm on July 7, 2003. Accessed January 20th 2021

Table 1. Value Added Opportunity slate.

Dimension	Innovation	Coordination
Time	Speed	Just-in-time Delivery
Location	Convenience	Efficiency
Product/ Service	Form	Logistics
Process/Method	Technology	Strategic alliance
Information	Safety, Ethics	Information Systems
Incentives	Motivators	Transparency

Source: Amanor-Boadu 2003

1.6 Conceptualization of Value-Addition under the Agriculture Sector Strategic Plan (ASSP) 2015/16-2019/2020.

The Agricultural Sector Strategic Plan (ASSP) aims at building capacities of farmers, traders and processors in ensuring compliance to quality standards and market requirements of the priority commodities. This is done through strengthening farmer organisations for collective marketing, bulking, quality and standards improvement. It promotes appropriate technologies and practices for minimizing post-harvest losses along the entire commodity value chain. It promotes commodity/farm-based storage and agro processing and supports measures to enhance access to formal domestic and regional markets including intensifying enforcement of standards to ensure high quality of local agricultural produce and improved market information flow.[6] In this way, smallholder coffee farmers under associations and cooperatives are strengthened so that they can take up opportunities along the commodity value chain. This has been emphasized by the NUCAFE through the farmer ownership model and the various engagements of the small coffee farmers associations.

Value-addition by the smallholder coffee farmers have focused on several practices at on-farm and off-farm level that previously were under looked. These practices are perceived as adding value to the coffee and can improve its quality leading to customer satisfaction

[6] ASSP-Final Draft MAAIF- 2015/16-2019/2020. Ministry of Agriculture, Animal Industries and Fisheries. Pp.38. Accessed November 1, 2022. Agriculture Sector Strategic Plan (ASSP) – Ministry of Agriculture, Animal Industry and Fisheries

and a high reward in form of price. The engagements by the coffee farmers association and NUCAFE are all part of the drive to create awareness and participation in value-addition. The goal is to create a good quality perception for the coffee so that value added can lead to higher prices, increased market access and share.

1.7 Value-addition opportunities within the on-farm and off-farm coffee processes.

Value-addition opportunities take form of planting new disease resistant coffee varieties that are high yielding. The 10 Robusta Coffee Wilt Disease-resistant (CWDr) varieties are clones named: KRs (Kituza Robusta) are resistant to the coffee wilt disease (CWD), tolerant to leaf rust, have large beans. Smallholder coffee farmers who plant the KR coffee varieties can achieve a mean yield of 3,700kg (hulled coffee) per hectare/year[7] thus adding value to their coffee produce.

Value-addition opportunities can be utilized through adopting new methods of spacing (the Brazilian spacing method) in coffee gardens that increases coffee output per hectare of land. Smallholder coffee farmers can harvest more coffee from a small piece of land unlike with the old traditional spacing method. Water conservation and irrigation techniques when adopted in coffee gardens can improve the quality of the coffee bean cherries. Application of organic fertilizer in the coffee garden can improve coffee quality and increase yield.

Proper harvesting techniques are part of value addition when the right red cherry coffee beans are harvested. Hygienic drying on elevated platforms and storing in well-aerated spaces that are free from microscopic organisms that can lead to contamination and compromise quality. The bulking, processing, sorting and grading of the coffee provides opportunities in the coffee value chain, which smallholder coffee farmers attempt to utilize.

It is important to note however, that the proportion of benefit in terms of reward for performing a given value adding activity is determined by the customer or consumer satisfaction and their willingness to pay a given price for the value-added product but not necessarily by the work or effort of the producer.

[7] National Coffee Research Institute Uganda - NACORI - Mukono, Uganda. (klasearch.com) Accessed on April 6, 2023

2 Chapter 2

2.1 Background

In this chapter, the background, the MAAIF strategic value addition drive, the historical perspective will be discussed. Furthermore, value-addition to agriculture and the theorization and conceptualization of coffee production in Uganda will be explored. Approximately about 1.7 million households[8] in Uganda grow coffee and it remains one of the principal sources of income for the rural households engaged in agriculture among other crops cultivated for local consumption such as banana, manioc, beans, and sweet potato. Coffee production is estimated along the country's coffee export figures and thus about 6,414,696 million 60-kilo bags worth US$ 607.81 million were produced in the year (September 2020-August 2021).[9] Smallholder coffee farmers however produce about 98% of Uganda's coffee which they often grow on self-owned small plots of land ranging between half a hectare to 1 or 2 hectares. On average about 232Kg of clean coffee/acre can be produced by traditional farmers[10] and about 505kgs of coffee/acre by improved farmers.[11] There are some few large estate coffee farms but these make up just about 5% of the total area under coffee cultivation in Uganda.[12] The smallholder coffee farmers produce the biggest bulk and proportion of Uganda export coffee and thus are focus of the Ministry of Agriculture, Animal Industry and Fisheries MAAIF value-addition drive under the Agriculture Sector Strategic Plan (ASSP 2015/16-2019/2020). This government action plan is a development discourse that attempts to define the engagements within the coffee sector and more so the practices of the smallholder coffee farmers in order to achieve a specific goal. The practices and engagements of the smallholder coffee farmers and the government are therefore an important focus of this thesis. In the next paragraph, I will provide a historical overview of the coffee production in Uganda.

[8] UCDA website. Accessed on April 6, 2023. https://ugandacoffee.go.ug/resource-center/fact-sheet

[9] UCDA website. Accessed on April 6, 2023. https://ugandacoffee.go.ug/node/146

[10] A farmer who carries out basic agronomic practices, exclusively uses family labour and does not apply fertilizers (whether organic or inorganic) and neither uses any pest and disease management practices.

[11] A farmer who significantly adopts recommended GAPs and applies fertilizers as well as proper canopy management and effective pest and disease management.

[12] Uganda Country Coffee profile. n.d. Accessed February 1, 2023. Pp: 34 Uganda Country Coffee Profile_1.pdf (ugandacoffee.go.ug)

2.2 Literature review

Historically, the 'cash crop revolution' (Frankema et al. 2018) spread and shaped many African economies inevitably the colonial government in Uganda likewise established a cash crop economy which made the country highly dependent on the export of agricultural commodities such as coffee and cotton (Wrigley 1970; De Haas 2017). Around 1914, Europeans and Asian farmers established about 135 coffee plantations on about 58.000 acres of land. The fall of coffee prices in the 1920s however forced them to abandon coffee farming. This created a gap that was gradually filled by African smallholder farmers who continued growing coffee on relatively smaller plots of land. A coffee board was set up in 1929 and which further promoted coffee growing among the Africans while the Europeans and Asians predominantly managed coffee processing and trade at least until the 1950s (Jamal 1976; Ramchandani 1976; De Haas & Frankema 2018). Coffee planting was promoted even as producer prices and labour wages remained relatively low although production increased to about 2 million 60/kg bags by the 1960s.

Production further increased to three million bags between the 1969 and 1970. The preceding years of political upheaval strained and affected coffee production but stability after 1986 brought resumed coffee growing even after prices plummeted after the collapse of the International Coffee Agreement. Coffee Prices may have recovered for Ugandan coffee farmers briefly particularly during the period of low production from Brazil after June 1994 frost that destroyed much of its coffee crop. This price boom triggered an increase in Ugandan coffee production with coffee exports reaching four million bags in 1995-96 and 1996-97[13].

The liberalization of the economy in Uganda after 1991 triggered a period of uncertainty for coffee farmers, even if it should have improved coffee prices. There was an influx in private registered firms (about 117 coffee export firms in 1994 to 1995) engaged in coffee processing and exporting. This number subsided in the years later, but the proliferation of these actors in the coffee chain impacted the coffee price at farm level. Although smallholder coffee farmers should have benefited from improved prices in a liberalized coffee sector, price fluctuation meant that smallholder coffee farmers remained receiving low prices for their produce.

[13] Uganda country coffee profile. n.d. Accessed on November 1, 2021. Pp 13-14. [Uganda Country Coffee Profile_1.pdf (ugandacoffee.go.ug)]

The Uganda Coffee Development Agency (UCDA) a government agency responsible for the coffee sector and coffee farmers associations had become less responsive to farmers' challenges. The absence of a coordinated approach by various actors in the liberalized coffee sector led to confusion among the many yet fragmented smallholder coffee farmers. The UCDA, the private sector and donor actors all were simultaneously approaching the coffee farmers, providing mixed and divergent messages leading to confusion and time wastage (NUCAFE newsletter July – Sept 2005). In the absence of meaningful progress in a crisis ridden coffee sector, smallholder coffee farmers under NUCAFE mobilized into farmers' associations to assume ownership of the production processes within the coffee sector. The next paragraph will discuss how MAAIF through its ASSP (2015/16- 2019/20) engages the coffee sector and drives value-addition.

2.3 MAAIF's strategic value-addition drive

Value-addition initiatives among smallholder coffee farmers in Uganda cannot be understood without considering the efforts of the MAAIF, which gives overall foresight of the agricultural sector and the export trade of agricultural commodities. MAAIF strategic objectives include increasing production and productivity of agricultural commodities and enterprises; increasing access to critical farm inputs; improving access to markets and value addition and improving the quality of agricultural commodities; strengthening the agricultural services institutions and while providing for an enabling environment. This falls within the national development plan that seeks to improve rural household incomes.

The idea of value-addition to agricultural commodities has been discussed with interest and eventually prioritised for adoption within Uganda's agricultural sector processes for some time now. The MAAIF has tracked performance among key export crops and ascertained that an attained increase in revenues from the export of coffee, tea and cocoa of 9%, 31% and 7% respectively between 2010 and 2013 was attributed to value-addition. The share contribution of the agricultural sector to the GDP growth and monetary contribution also increased by 0.1% and 0.8% respectively between 2010 and 2013, although there was a decline in the share of agriculture in the GDP from 22.7% to 22.5% in the same period[14]. This performance of the export agricultural commodities under value-addition has been pivotal in influencing the drive to value-addition on export commodities such as coffee.

[14] ASSP-Final Draft MAAIF- 2015/16-2019/20. Ministry of Agriculture, Animal Industries and Fisheries. Accessed November 1, 2022. Agriculture Sector Strategic Plan (ASSP) – Ministry of Agriculture, Animal Industry and Fisheries

Value-addition is understood as an avenue to increase incomes from agricultural commodities but can be adopted if the various challenges within the agricultural sector as observed by MAAIF can be holistically approached. These challenges as briefly mentioned below remain. Poor agronomic practices affecting mainly the quality of the produce; funding constraints and limited access to credit facilities impeding farmers' capacity to acquire necessary farm inputs; limited knowledge on post-harvest handling; weak regulatory framework and lack of enforcement due to limited capacity at the local level; limited extension services due to very low extension staff to farmer ratio, laying-off of NAADS staff and Agricultural Advisory Service Providers (AASPs) [15]

Value-addition has come to fascinate the minds of policy makers as viewed from the economic growth and development lens leading to policy and regulatory reform. MAAIF has undertaken a number of measures; it embarked on regulatory reform in support of agro based input businesses; a number of policies and bills were proposed, and the recently enacted National coffee bill of 2021 was an outcome of this thinking; new departments have been established to support the value-addition drive such as the Department Of Crop Inspection and Certification (DoCIC) that regulates seeds, planting materials and agro chemicals[16]. The DoCIC supports farmers of various export crops including coffee to access high quality inputs, planting and stocking materials. Private investors have also been encouraged to participate in the value-addition drive at all stages of the commodities value chains as an avenue to tap into profitability within agro based export markets; guidelines for farmer institutional capacity development have been established, farmer organisations have been supported to enhance farmer participation in market development and value-addition. Advisory services have also been delivered to farmer organisation[17]

The ASSP (2015/16- 2019/20) aims at integrating smallholder farmers into the value chain, it aims at increasing farmers' productivity at least by 50% of the yields from the 12 priority commodities which include coffee; Transforming subsistence farmers (who grow for consumption) into enterprise farmers (growing for consumption and responding to market

[15] ASSP-Final Draft MAAIF- 2015/16-2019/20. Ministry of Agriculture, Animal Industries and Fisheries. Accessed November 1, 2022. Pp.22. Agriculture Sector Strategic Plan (ASSP) – Ministry of Agriculture, Animal Industry and Fisheries

[16] ASSP-Final Draft MAAIF- 2015/16-2019/20. Ministry of Agriculture, Animal Industries and Fisheries. Accessed November 1, 2022. Pp.19-22. Agriculture Sector Strategic Plan (ASSP) – Ministry of Agriculture, Animal Industry and Fisheries

[17] ASSP-Final Draft MAAIF- 2015/16-2019/20. Ministry of Agriculture, Animal Industries and Fisheries. Accessed November 1, 2022. Agriculture Sector Strategic Plan (ASSP) – Ministry of Agriculture, Animal Industry and Fisheries

needs) and transforming smallholder farmers into commercial farmers; Increase agriculture exports to at least $4 billion per year[18].

The engagements of the government under the MAAIF, the coffee farmers associations, and smallholder coffee farmers are not happening in isolation but in interaction with one another. Through ethnographic fieldwork, linkages between macro level and micro level can be examined and explained. The analysis of value-addition attempts by the Namayumba Coffee Farmers' Association (NCFA), becomes relevant to understanding processes of agricultural intensification and historical structural dependency.

2.4 Value-addition to agriculture

Value-addition is believed to increase the incomes of smallholder coffee farmers an assertion that currently obscures challenges faced in the process of adoption. Smallholder coffee farmers often must decide between limited and scarce resources in the process of value-addition adoption. Availability of resources becomes paramount thus scarcity or limited access to given resources leads to modest value-addition attempts.

Discussions on value-added agriculture have urged the need to evaluate the net incomes from undertaking value-addition practices rather than only evaluating value-addition practices. This is so because if the total profitability for performing a value- added activity is not high above costs of agricultural production, such a process or activity ceases to be value adding.

It has also been observed that continued use of value-added products or services over time leads to 'declining satisfaction' (Chung 1969) among customers even when the quality of the product or service remains the same. This is so because value adding activities can be 'dynamic in nature' (Amanor-Boadu 2003, 4).

Customers that buy coffee from smallholder coffee farmers emphasize the intrinsic quality of coffee for which they are willing to pay sometimes a better price when value is added. The introduction of new trend or speciality coffee however creates new desirability for which even better prices are offered. In contrast, smallholder coffee farmers are often in conditions of scarcity of resources and struggle to adapt to or adopt GAPs or new efficient

[18] ASSP-Final Draft MAAIF- 2015/16-2019/20. Ministry of Agriculture, Animal Industries and Fisheries. Accessed on November 1, 2022. Pp.25. Agriculture Sector Strategic Plan (ASSP) – Ministry of Agriculture, Animal Industry and Fisheries

techniques of production. The price increase for value added coffee from the smallholder farmers is merely a compensation for the on-farm and off-farm production costs. The value-added price is often marginal to make a significant leap from poverty among the smallholder coffee farmers on Namayumba.

When entry costs for conducting a value-addition activity become low, several providers of the same product or service can make the 'marketplace contestable' (Panzar & Willig 1977). This reduces the level of rewards from performing a value-added activity on a given product or service. While this cannot be said of the smallholder coffee farmers in Namayumba, it's likely that smallholder coffee farmers who incurred low costs of production under value addition, benefited from the market price offered for value-added coffee. As smallholder coffee farmers in Namayumba attempt to adopt value-addition practices within the on-farm and off-farm processes, these agricultural practices are not independent engagements but emanate from a value-addition agriculture lens, a superior form of agriculture. It is also clear that discussions on the benefit of value-addition in the agricultural sector have eschewed vigorous analysis, more evidence ought to be gathered on how perceived increase in rural household income comes about.

2.5 Towards theory and concept

In a detailed discussion in this section, I will show how conducting a fieldwork helped me observe and understand the local's viewpoint. The practices of smallholder coffee farmers under associations and their engagement with the government are motivated by market assumptions and ideas on value-addition. The smallholder coffee farmers' participation in farmers' association and integration in market economies is motivated by the desire to overcome household income problems. The adoption of value-addition attests to the attempts by smallholder coffee farmers to improve and increase coffee output in order to earn more income from the coffee produce.

The ethnographic data gathered during my fieldwork allows me to further develop the theoretical understanding. The anthropological literature on local agricultural practices and smallholder farmers integration into market economies is extensive, some literature is focused on private entrepreneurs and international markets as central to changing local experiences with agricultural practices (Grossman 1998; Rigg 1987); more literature discusses the experiences of smallholder farmers engaging with economic and agricultural development (Desmarais 2002; Netting et al. 1989; Shack et al.1990). The decision by smallholder farmers in Namayumba to engage in coffee growing is driven by economic aspirations and other considerations such as labour, farmland, time and accessibility to infrastructure such as coffee processing mills.

The theoretical discussion in this thesis will attempt to show that on-farm, off-farm practices and engagements of smallholder coffee farmers in Namayumba intensify in the process of adopting value-addition. Commonly observed agricultural practices include intercropping of arable crops such as Banana plants, Manioc, beans with coffee. While such practices are seen as coping mechanisms among smallholder households, the causal factors for these agricultural practices have been widely discussed (Wilk & Netting 1984; Netting 1993).

2.6 Smallholder farmers and agricultural intensification

Smallholder farmers have been observed to exhibit intensive techniques of agricultural production. Agricultural intensification of production entails increasing the productive output per unit of land or labour (or to some other fixed quantity) (Boserup 1965, 43-44). There can be multiple ways of increasing output. In food production, intensification of production seeks to increase harvest from a constant land or increase the efficiency of production through labour or any other input. Processes of intensification of production can be varying and involve ‘addition of inputs up to economic margins, or involving inputs of capital, labour and skills against constant land’ (Brookfield 1972, 31-32). Other aspects such as organization of the farm, methods used to allocate land and local experience with ecology are observed as equally important. Some studies have examined local agricultural decision making on what to grow as a cash crop as based on experiences with environmental change, economic aspirations, infrastructural changes in the form of a road, and labour considerations (Finnis 2008, 367). Agricultural intensification has also involved the concentration and expansion of cultivation of a given cash crop among smallholder farmers. Agricultural intensification is historically uncommon in sub-Saharan Africa and can be both risky and costly. It is a process mainly motivated by economic aspirations (Adams & Mortimore 1997, 152).

The promotion of value-addition within the coffee value chain has an impact on the local agricultural practices. As has been observed, it leads to agricultural intensification among smallholder coffee farmers. However, this process is occurring not independently, but in interaction with the government development discourse.

Agricultural practices among smallholder coffee farmers intensify with the adoption of value-addition which is encouraged by government and promoted by small coffee farmers' association through the farmer ownership model. Smallholder coffee farmers are encouraged to adopt value-addition within on-farm and off-farm practices so that they can in the end determine the price of the coffee themselves through associations. Value-addition however requires that smallholder coffee farmers allocate more resources into their coffee gardens in terms of farm inputs unlike previously when they grew coffee traditionally or with fewer inputs.

The practices within the coffee gardens intensify and so does the engagements with the Namayumba Coffee Farmers Association, UCDA, the government and other actors. The smallholder coffee farmers increase their engagements with the association; they take part in meetings and trainings conducted by UCDA extension officers and district agricultural office. Important information, experiences and expertise are shared to improve coffee farming techniques and coffee produce. These engagements sometimes have resulted into support in terms of free pesticides from the government to control the Black Coffee Twig Borer (BCTB). I should also mention here that such assistance is not routine or scheduled as it's never clear when it can be provided again to the smallholder coffee farmers. Although these are some of the few notable instances the government through the district agricultural office has responded to relieve smallholder coffee farmers from Bugimba and Lutisi (parishes under Namayumba Sub County) of a pest attack crisis.

These engagements serve to legitimate role of the coffee farmers' association in mobilizing smallholder coffee farmers, but also emphasize government's commitment to supporting smallholder coffee farmers improve and increase coffee production as underscored in the government national coffee strategy. The on-farm and off-farm practices of value-addition undertaken by some smallholder coffee farmers, the continuous coffee production have provided the relevance for the adoption of the same practices by old and emerging smallholder coffee farmers in the sub county.

The engagement between the small coffee farmers and the NCFA increase and are aimed at improving and increasing export coffee production. It is also assumed that small coffee farmers' household incomes will increase with the adoption of value-addition practices an assumption that ignores the extent to which income reduce among the same farmers' households. The coffee farmers' association remains pivotal in mobilizing smallholder coffee farmers into value-addition adoption.

The fieldwork enabled me to understand how the smallholder coffee farmers engage with NCFA. Smallholder coffee farmers seek support from the NCFA. One smallholder farmer interviewed expressed relief after acquiring support from the NCFA together with some university intern students. The support was in form of labour hours to stump out old coffee trees from her garden and replacing them with new coffee seedlings. The same coffee farmer received free land assessment from research professors through NCFA. After a positive land assessment, she planted a new coffee garden on which she adopted the Brazilian coffee spacing technique. Such engagements underscore the role of the coffee farmers association.

I participated and observed training on coffee seedlings preparation done by the intern students for some new small coffee farmers. This engagement is organized by the NCFA and is aimed at supporting the smallholder coffee farmers from the beginning of planting coffee so that they can start their coffee gardens on the right footing. The NCFA occasionally invites other small coffee farmers associations from other districts to visit and learn from some established smallholder coffee farmers in the sub county. The engagement between the smallholder coffee farmers under association and the government has created awareness and an extent of adoption of value-addition within on-farm and off-farm practices. Smallholder coffee farmers however still encounter various challenges as I will discuss further in the thesis.

During the fieldwork I engaged with smallholder coffee farmers who expressed the lack of cash as limiting their ability to adopt value-addition initiatives within the on-farm and off-farm coffee practices. The lack of access to credit as I will discuss further is one among the limitations many smallholder coffee farmers encounter. It also became clearer to me that the NCFA lacked the financial capacity to buy all coffee produced by the smallholder coffee farmers in Namayumba including supporting them financially. The NCFA however mainly mobilizes the smallholder coffee farmers for value-addition trainings, coffee bulking and selling to exporters and receipt of any other support delivered from the government.

The theoretical analysis within processes of agricultural intensification serves as a basis to anchor the observed practices and engagements of the smallholder coffee farmers under the NCFA. The on-farm, off-farm practices and engagements as explained intensify through value-addition adoption. In reality these reflect the struggles local groups (smallholder coffee farmers under associations) undertake to contest unequal relations within the coffee commodity value chain in which they have limited power to influence prices that are determined in the consumer countries in the metropole.

2.7 Development by dependence

Some anthropological literature has been critical of development paradigms particularly state reworked development discourses in the global south that are sustained in a dependency relationship on the core (metropole). Exogenous factors have been mentioned as obstacles and some scholars have scrutinized such as associated dependent development (Cardoso & Faletto 1979; Evans 1979; Gereffi 1983; Bennett & Sharpe 1985; Lim 1985; Gold 1986). Others have analysed the structural dynamics of the world capitalist system, a system in which cash crop production economies are embedded (Palma 1978; Dos Santos 1970; Marini 1972; A, G Frank 1967, 1969).

The export coffee production in Uganda presents a familiar posture of periphery (formerly referred to as third world) economies dependent on the metropole (formerly referred to as first world). I find validity in questioning economic development through coffee export production under an exploitative and unequal exchange structure in which the metropole (formerly referred to as first world) is in domination and the periphery is in dependency (Hoper 2012). The smallholder coffee farmers in Uganda produce the biggest bulk of coffee whose export provides the country a major foreign income.

The Uganda National Coffee Strategy 2040[19], under the UCDA is aligned to the National Development Plan 2015/16- 2020 (NDPII) which is developed by the National Planning Authority and has prioritised strengthening the coffee value chain. The Agriculture Sector Strategic Plan (2015/16-2019/2020) seeks to increase coffee export production by the year 2040. This is sought to be achieved through several interventions especially targeting smallholder coffee farming households at the local level. These strategies are focused on

[19] Uganda National Coffee Strategy 2015/16 - 2019/2020. Accessed on November 1, 2022. National Coffee Strategy Design.pdf (ugandacoffee.go.ug)

provision of extension services to smallholder coffee farmers, groups and associations, promoting adoption of good agronomic practices, farm input application, and coffee farmland expansion. Adoption of value-addition on coffee is currently prioritised as an avenue to raise rural household incomes.

Value-addition is the long-term focus of the government and is considered exigent in the coffee value chain in order to increase foreign annual accruals and incomes for smallholder coffee farmers. At the macro level, legislation has been formulated and enacted (The National Coffee ACT 2021) to guide the coffee sector.

Value-addition focuses on raw coffee commodity export which still denies the producing country an opportunity to develop 'more profitable or technologically sophisticated and skill intensive niches' (Gereffi 1999, 51-52). Exporting raw coffee commodity mainly benefits the coffee large consumers where value-addition for coffee final consumption is more profitable and technologically sophisticated. These large coffee consuming countries in the metropole determine the coffee price, market conditions and capital investments through the large transnational corporations.

The anthropological critique on development discourses in the periphery discusses cash crop production economies that were established and 'tailored to European markets' (Hoper 2012, 35) while essentially many have remained raw commodity producers and exporters. This provides me the basis for analysing the coffee export production strategy in Uganda within dependency. The dependency debate is decades old and faced critic for its ahistorical positioning but when viewed from a historical structural dependency lens (Cardoso & Faletto 1979), I find relevance in explaining contemporary development discourses in the periphery. As I will explain further in the thesis, many countries in the periphery are dependent on the export of raw materials and cash crops whose prices remain low, a condition that explains the fate of smallholder coffee farmers in Uganda. The periphery whose initial role in the world economy was to supply raw material to the core industrial production, and to consume some of the manufactured products from the core has remained the same over the decades with little upward movement to assume some of the most profitable stages of production (Arrighi & Dranghel 1986; Korzeniewicz & Martin 1994).

The organization of coffee production and the coffee value chain in Uganda produces a similar structure and is largely established along initial processes of production that offer fewer profits. The coffee growing, bulking, wet and dry processing, sorting and grading before export are the major stages that provide actors in the value chain an opportunity for any profits. The core where much of the capital is reserved have used their political and economic power to maintain the control over the most profitable stages of commodity chains while at the same time shifting and maintaining the concentration of the least profitable stages within the periphery (Talbot 2004). The emphasis on value-addition is one way Uganda attempts to upgrade and capture more profit from coffee production. Value-addition however has a marginal impact on the profitability at the initial stages of production in comparison to the more profitable production stages of final consumption in the core.

Discussing the coffee export production strategy through the lens of dependency is crucial to explain the current fate of smallholder coffee farmers in Namayumba, Uganda. It will also show that the engagements between the coffee farmers association and the government have led to prioritising coffee export production. This development strategy reinforces an associated dependent development but also has multiple purposes including extending power (the new coffee law) to the previously ungoverned (smallholder coffee farmers). The smallholder coffee farmers often are constrained by lack of access to small credits, farm inputs at subsidised costs, while agricultural extension support is minimal and sometimes not available. Many opt to resort to traditionally simple techniques of coffee production that can be time consuming, strenuous, unpredictable and less efficient. Establishment of prudent rural credit systems through banks, in which small coffee farmers associations can access small grants and credits. Value-addition adoption can be supported through access to subsidized coffee farm inputs, risk mitigation systems and repayable credit schemes. Bilateral market access agreements can be negotiated to ensure balanced unrestricted access of value-added products especially into new markets. Value-addition at on-farm and off-farm level and adoption of more profitable or technologically sophisticated, skill intensive niches if embraced concurrently provide an avenue to income growth for smallholder coffee farmers. The micro level interventions can be supported by macro interventions focusing on promoting favourable agro capital financing systems, which currently favour mainly coffee exporters in the coffee value chain. There is need to constantly review value-addition practices and how they can be rewarding to smallholder coffee farmers especially promoting new innovative techniques of production that are less costly and more efficient.

Smallholder coffee farmers prospect to improve their household incomes through growing coffee on their small plots of land. However, the inability for smallholder coffee farmers to achieve significant incomes from an agricultural activity deemed potentially economically viable by the state raises questions and thus critical analysis. It's in this context, the on-farm and off-farm practices of smallholder, coffee farmers and the engagements of the coffee farmers' association and the state were the focus of my fieldwork.

The aim of this thesis is to show that practices of smallholder coffee farmers, and engagement of small coffee farmers associations and the state are worthy anthropological scrutiny. This is noteworthy particularly when we observe inconsistencies between planned actions and eventual outcomes. It is often that market driven assumptions proliferate state development discourses all the way to impact change in local agricultural practices. This thesis thus seeks to show the predicament of smallholder coffee farmers in Namayumba in context of their social cultural setting and interaction with the political economy.

I observed and participated in the day- to-day long agricultural practices of the smallholder coffee farmers in Namayumba sub county and the activities organized by the NCFA. I read the UCDA and Ministry of Agriculture reports for additional data on the coffee sector. This helped me rework and reorient my initial research question from 'How coffee farmers in Uganda attempted to influence the National Coffee Bill of 2018 and impact on it today?', to 'the analysis of value-addition practices and the hurdles smallholder coffee farmers face at farm level in Uganda'. The field observations and interviews conducted were an important source of information as smallholder coffee farmers made resourceful responses. The day to day on-farm and off-farm activities of the smallholder coffee farmers, the Namayumba coffee farmers' association and the engagements between and among the various actors such as the coffee traders/ middlemen, the UCDA, and the state are further discussed in this thesis. Understanding these processes is important for us to be informed and aware of economic assumptions that underlie government development strategies. As anthropology, the goal here is to help identify such assumptions and inconsistencies resulting from actions of power and to show how these in fact impact local groups. If possible, our findings to cause redress and appropriate action from sources of power that is in the best interest of the group we study.

3 Chapter 3

3.1 Field work

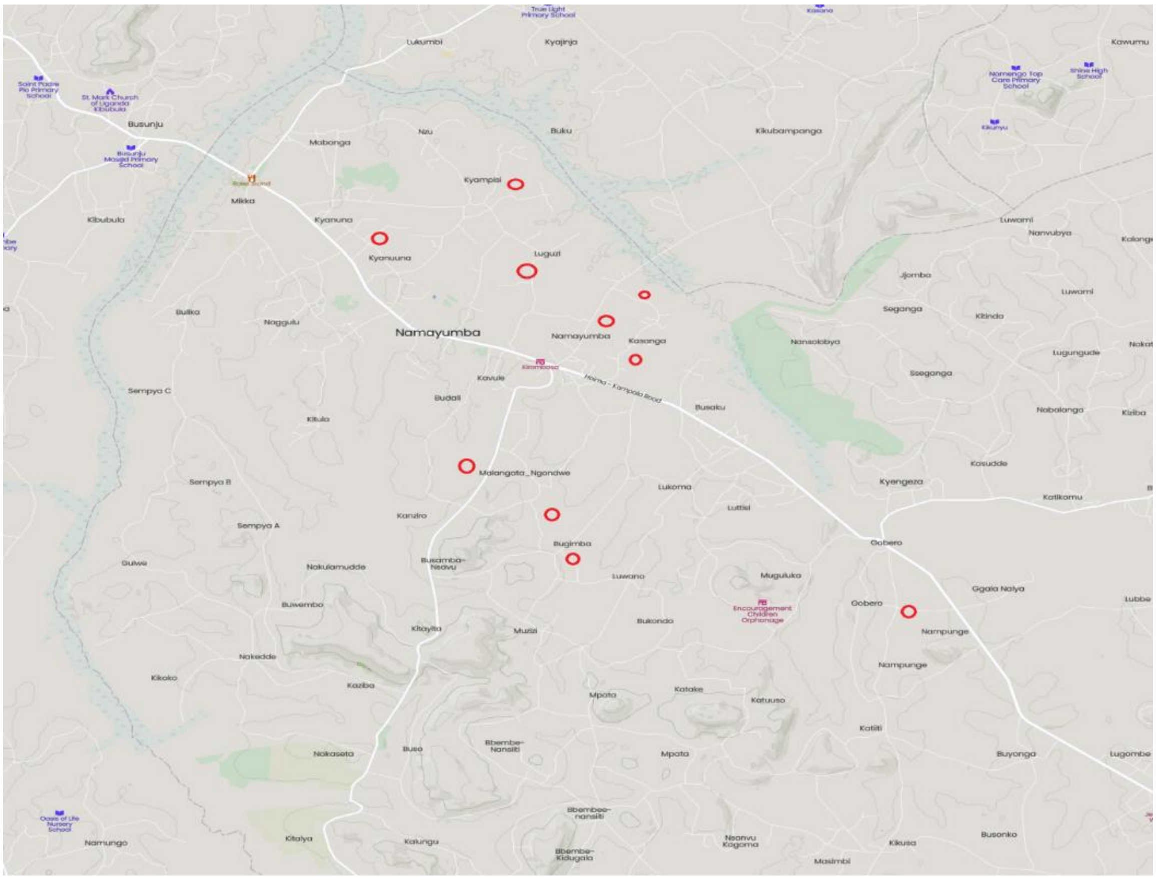
Anthropology research urges ‘prolonged engagement’ (Lincoln & Guba 1994) through conducting ethnographic fieldwork in order to understand society under study. My engagement with small coffee farmers lasted three weeks at NCFA in Uganda due to the partial COVID 19 lockdown restrictions in the country that made movement between regions difficult. Prolonged engagement requires several months in the field site something I understand would have provided me an opportunity to gain deeper valuable insight. The three weeks engagement with the smallholder coffee farmers allowed me gain substantial insight that would otherwise not have been possible with just interviews and research from a distance. My daylong engagements with the smallholder coffee farmers however gave me an opportunity to observe, participate, take field notes and learn the essentials of an ethnographic fieldwork.

My initial interest was to understand how coffee farmers influenced the 2018 coffee law through the engagement of the NUCAFE and small coffee farmers associations like NCFA. I shifted my focus to understanding value-addition initiatives and engagements by smallholder coffee farmers under farmers associations. After arriving in the field site and engaging with some smallholder coffee farmers, it came to my understanding that many of them were not familiar with the recently enacted National Coffee Bill of 2018, and although it mainly focused on regulating the on-farm and off-farm practices. This lack of awareness among the smallholder coffee farmers presented a research dilemma on my side and made my initial question unanswerable from the smallholder coffee farmers’ point of view. I had to adjust and adapt my research question and plan to the realities in the field. I reoriented my fieldwork towards observable day-to-day on-farm and off-farm practices and engagements of the smallholder coffee farmers. My field visits were never predictable, as I never followed specific visit plan due to uncertainty among smallholder coffee farmers’ availability. I had to be as flexible as possible but also willing to adjust my plan to the availability of the smallholder coffee farmers in their gardens. In some days I visited no smallholder coffee farmers because they were not available in their gardens or were not reachable to schedule a visit.

3.2 Field site

Coffee growing in Uganda is mainly in the central region of the country (which entirely grows Robusta coffee), western Rwenzori region (Arabica Coffee), northwestern Okoro and West Nile (Arabica), Northern region (Robusta) and the eastern region (Arabica). Studying coffee on-farm and off-farm practices and engagements of small coffee farmers thus can lead one to any of these regions of the country. My initial contact to the NCFA was the executive director of NUCAFE who I requested for an opportunity for afield study at any coffee farmers' association in the central region. He suggested to me two coffee farmers' associations both located in the central region of Uganda for possible field study. Kabulasoke in Masaka and Namayumba on Hoima Road which are four hours the former and two hours the later from the capital city Kampala. These were suggested to me because they were easily accessible and the language of communication in this region is Luganda, which I could speak and understand. I opted to do my field study at the Namayumba coffee farmers' association because it would be 'easy and accessible' (Bernard 2006, 356) due to its closer proximity to the capital city. Figure 2 below shows the map of Namayumba Sub County and the various site locations of smallholder coffee farmers I visited during my field visits. My contact linked me to an acquaintance, with whom I travelled to the field site. My arrival point at field site was the coffee farm of one of the NCFA member at Kyampisi. Here I was introduced to the chairperson and the program manager of the NCFA who gave me a brief introduction to the association. I likewise introduced myself and expressed my interest in making daylong visits to smallholder coffee farmers in Namayumba Sub County. She accepted and promised to make phone calls to members of the association and link me to each one according to their availability in their coffee gardens.

Figure 2. Namayumba sub county and locations of smallholder coffee farmers visited.



Map of Namayumba Sub County

3.3 The Namayumba Coffee Farmers' Association. (NCFA)

Namayumba Coffee Farmers Association (NCFA) is a member association of the NUCAFE. The NCFA is one of the small coffee farmers associations in the central region that has been part of the NUCAFE structure since 2003 and therefore has a long-standing experience in mobilizing, organizing and coordinating smallholder coffee farmers' activities in the Namayumba sub county. It is renowned among the smallholder coffee farmers and residents of Namayumba sub county. Coffee farming and value-addition initiatives in this community have been guided and conducted by the NCFA with support from NUCAFE and assistance from the UCDA and the district agricultural office.

The NCFA is in the Namayumba town council from which its name is dubbed. Space and place bear connotations and meaning. The association office is housed in an old county office house on the upper side of the town council. This house is quite visible from the roadside. A few meters away is the police post building and adjacent to it is the Namayumba town council offices. Space and place often bear exclusivity and boundedness. Its location on the upper side of the town council and near the town council offices gives it significance within the community. The Namayumba coffee farmers' association office is however a small backside room spacing between 2 by 3 meters. Inside this small office space is a small old table and two small chairs. Figure 3 below shows the interior and set up of the NCFA office. Hanging on its old unpainted walls is a certificate of acknowledgement awarded by Omukwano to the association for delivering 7.4 metric tons of Uganda speciality natural Robusta Coffee in 2014; A coffee farm management manual that guides coffee farmers, this manual is written in English and is one of the few things provided by the UCDA. The manual has instructions with displayed diagrams to guide any farmer through the basics of coffee farming. The manual didn't have a local language translation copy and yet the farmer representative here and some of the few small holder farmers I visited often communicated in the local language rather than the English language. In the office was a weight scale, a coffee bean grading box and moisture meter. These tools were not available at any other coffee farmer's place I visited but only in this coffee farmers' association office where they are often used for demonstration purposes during trainings of coffee farmers. In this small office one could find, at least all that is needed to demonstrate to smallholder coffee farmers about the ownership model yet although essential to the coffee farmers, they are not readily available and are costly for the farmers to afford. The chairman quite frankly said that coffee farmers need these tools in order to improve and maintain the quality standards of harvested coffee. Despite the small size of this backside Namayumba coffee farmers' association office, it was a symbol of representation of the 18 coffee farmers' groups totalling to 450 members in the Namayumba town council.

Figure 3. The NCFA office

The NCFA is the single existing coffee farmers' association in the Namayumba sub county and membership is voluntarily. The smallholder coffee farmers in Namayumba are generally scattered throughout the sub county, some share boundaries on their small plots of land and are neighbours. The small plots of land usually are half an acre to one or more acres in size. The fragmented nature of land holding in this community dictates that most landowners have small plots of land on which to do crop farming for subsistence and sometimes cash crop farming. Coffee is entirely grown on small plots of land as a cash crop. Because of this reason, my fieldwork involved making scheduled daylong visits to the smallholder coffee farmers in which I conducted participation observation.

I chose to stay in the Namayumba trading centre, because this is where I could easily find a small room in a guest house on short notice. The rooms were more like cubicles with just a bed and a small sized bathroom and toilet but the rates per night were affordable on my side especially because I needed a place for the 3 weeks during my fieldwork. Staying here also provided me quick access to the NCFA office located at the Sub- County house. It was also a central location to most of the smallholder coffee farmers I eventually visited. My visits were always scheduled planned by the manager of NCFA who made calls to the different small coffee farmers to schedule my visits. The small coffee farmers always had their own daily plans, even though one would assume that they should spend every minute of the day in the coffee garden. It was important that I fitted myself into their day plans thus, I had to be flexible during the fieldwork. My intention was to visit many smallholder coffee farmers as possible because this would provide me a deeper understanding of the struggles and challenges, they encountered in the process of adopting value-addition within the on-farm and off-farm practices. I always accepted to visit any smallholder coffee farmer that was available to let me visit at short notice and participate in their coffee gardening routine. Every evening I would meet the administrator at her small corner shop, and she would share with me the next visit plan to a smallholder coffee farmer the following day. My informant was young man also working for the NCFA and we always travelled together on the NCFA motor bike to the different smallholder coffee farmers. This young man was well versed with the locations of most of the smallholder coffee farmers that are members of the NCFA. He would take me to the field site in the morning and later pick me up in the evening. He would introduce me to a coffee farmer, and I would likewise introduce myself and explain the motive of my visit. Although I was a stranger to the smallholder coffee farmers, I understood the language of communication, and this made my participant observation easier.

I made visits to 15 smallholder coffee farmers, 11 were members of the Namayumba coffee farmers association, while four were not members but had been members before of the farmers' association. However, the members of this farmers' association are in dispersed different locations in the town council and beyond. I visited smallholder coffee farmers located far away in the villages and this had a financial implication in terms of how much I had to pay for my transport to these far-off locations deep in the villages. The minimum transport fare would be around at least 8000 Uganda shillings about 2 Euros going and coming back. I therefore limited my visits to a few distant farmers and to the most accessible small holder coffee farmers.

The main road to Namayumba Sub County is tarmac but all the roads leading to the small coffee farmers are gravel roads quite passable for both light and heavy vehicles. However, as you go further into the village communities, roads get narrower, and some get bushy due to limited usage and movement of vehicles. Villagers and farmers however are still able to move through these narrow footpaths using motorcycles (*Boda Boda*) for transport until the main road where public buses can be accessed. In figure 4 below, footpath and a *Boda Boda* used by farmers to transport coffee to the coffee processing and grading station. I visited some small coffee farmers whose coffee gardens were only accessible through small bushy footpaths. To access the smallholder coffee farmers, I was often guided and transported by a young man who doubled as a worker at the NCFA and my informant on many of the field visits I conducted. I agreed with the NCFA manager that I would pay for the fuel, and this worked quite well for me and the NCFA. In some instances when this young man was busy with other assignments, I hired taxi motorcycle (*Boda Boda*) to travel to a given field site.

Figure 4. Footpaths between gardens, bicycles and motorcycles (*Boda Boda*) are often used for the transportation.

3.4 On the field

My first day in the field was at the Luguzi coffee nursery bed. This is the coffee garden owned the chairman of the NCFA, I later learnt that he is widely recognized in the Namayumba community for his role on promoting coffee growing including among women and youth. At this coffee nursery bed, approved coffee seedlings as well as coffee farming services can be provided to new and old members of the NCFA as well as any interested small coffee farmers. Demonstrations, exhibitions of coffee seed varieties and trainings are conducted for every farmer interested in starting a coffee garden. The same demonstration and trainings have been conducted for visiting farmers' association groups from neighbouring and distant regions of Uganda, well as for intern students from the university. This coffee nursery bed is space for learning value addition practices, sharing experiences and challenges of coffee farming. For intern university students and researchers like me, this coffee farming space provided a rich ethnographic detail about on-farm and off-farm coffee practices.

I participated in a coffee farm management training conducted by the NCFA. At this training I was able to observe and learn from my interlocutor the key initial stages in starting and managing a coffee garden. The initial stages of starting a coffee garden may involve some intricacies that necessitate a coffee farmer's determined and constant attention to their coffee garden if they are to get a good and quality yield. Coffee farming thus is not a mere practice of cropping but one that requires a farmer's commitment in terms of time, labour and financial resources. The training I observed and participated in, underpins the importance of using improved and approved seedlings, spacing techniques during planting, irrigation methods and application of specific fertilizers in order to achieve a good coffee yield. I understood how each farmer encountered different challenges and how these impacted on the ability of some smallholder coffee farmers to fully grasp the idea of value-addition as a way of improving their economic status. It is also possible that the challenges smallholder coffee farmers faced impacted on how far they adopted value-addition initiatives.

3.5 Small coffee gardens as Ethnographic field

The small coffee gardens became the source of much of my ethnographic data, as here I was able to participate and observe the on-farm practices and off-farm practices. Participating in some of the activities also helped me understand and embed myself in the day-to-day experiences of smallholder coffee farmers. Conducting fieldwork became a 'learning process' (Blommaert & Jie 2020, 26) for me since as a researcher I was a stranger who had limited knowledge on the value-addition practices among smallholder coffee farmers. The preparation for my fieldwork provided some insight into the coffee sector but not on value-addition practices since these were not my initial focus. I learnt that depending on the season of the year, smallholder coffee farmers always perform an activity in their coffee gardens. But even then, my visits to the smallholder coffee farmers needed to be confirmed by the NCFA manager before I set off to the field site. Each individual smallholder coffee farmer has their own coffee gardening schedule and so it was important for me to make my visits within their gardening times. Most farmers were always in their gardens in the morning due to cooler temperatures at this period of the day making work easier. Temperatures rise later in the day from midday making work in coffee gardens cumbersome during early and late afternoons. I was prepared for all these scenarios as my goal was to meet the smallholder coffee farmers, learn and understand their practices and engagements through their everyday activities in their coffee gardens.

Every visit to smallholder coffee farmers provided me with a new experience, an opportunity to interact and generate new data for my fieldwork. At every visit, I had to reintroduce myself and explain the intention of visiting and conducting participant observation. At the same time, I made sure to distinguish my fieldwork intentions from intentions of previous visitors to smallholder coffee farmers in the region. I presented myself as a research student conducting a field study for my final thesis. This was important because often smallholder coffee farmers have received visitors, extension workers representing government agencies and field officers from NGOs all having various and overlapping intentions. I needed to gain the trust of my study subjects by showing that my interest to participate in their coffee farm activities is aimed at sharing their experiences and challenges from an ethnographic point of view.

The coffee garden is a gardening space for the coffee farmer, in which coffee farming practices are performed in order to produce coffee for sale. It is a source of livelihood for the farmers' household and often demands the farmer's daily attention. Coffee farming practices such as stumping, weed and pest control, mulching, pruning, water conservation and irrigation, soil fertility conservation and among many others become routine performances every season of the year. While there are two determinable seasons for the coffee harvesting, the yield from each of the season varies and is dependent on several factors: The duration of the wet and dry (rainy and sunny) periods of the year, but also as I came to learn through the fieldwork, the kind of on-farm practices performed by the coffee farmer.

Most old coffee gardens were intercropped with arable crops such as Banana trees, Manioc which are consumed by the family household although can also be sold as cash crops for domestic consumption. Crops like banana trees are also meant to provide shelter to the coffee trees and their residue is used for mulching often practiced by coffee farmers; most new coffee gardens were not intercropped but with more coffee plants due to the new practice of the Brazilian spacing technique that reduces the spacing between the coffee trees. The decision to intercrop is entirely made by the smallholder coffee farmer depending on their household food consumption needs. Some farmers with new coffee gardens applied fertilizers that are organic, while others practiced intercropping and fertilizer application. Some coffee gardens had beehives positioned along the boundaries of the garden. I was later informed that the bees help with cross-pollinating the coffee flowers thus ensuring a high yield. But such additions in coffee gardens have costs and require a level of investment, they also signify the extent of agricultural intensification among smallholder coffee farmers. The labour in the coffee garden is often family labour involving the adults and mostly the children at home, in moments of work overload; farmers are forced to hire some labourers to do weeding, mulching and coffee harvesting. The coffee garden thus is a place of production, interaction and source of household income for the farmers' family.

3.6 Methodology

Ethnographic fieldwork as a method provided me access to some important sources of information (Eriksen 2001). My intention was to understand why smallholder coffee farmers remain poor despite adopting value-addition strategies. Conducting ethnography on such a topic among the small holder coffee farmers sometimes felt like trying to read a "foreign manuscript'' with incoherently written texts (Geertz 1975,10). I observed and learnt that smallholder coffee farmers encounter multiple and varying challenges. Some smallholder coffee farmers were easily accessible while others were in distant and almost inaccessible village locations that required hiring flexible means of transport such as a motor bike to visit. The manager at the coffee farmers association made contact to the smallholder coffee farmers by phone and arranged my visits. Many of my visits were short notice, arranged between a day and two depending on the coffee farmer's response. Every affirmative response gave me optimism and just like any active huntsman, I focused my field work on participating in and observing coffee on-farm and off-farm activities that are routinely performed by the small holder coffee farmers from which I hoped to follow up on their most 'inaccessible lairs' (Malinowski 1922).

It was important for me to grasp the coffee farmers' 'point of view' (Malinowski, 1922) and be able to interpret their relation to coffee in order to understand their view of the world. I observed some of the routinized coffee on-farm practices that are repetitively performed at given periods of the coffee farming season. I looked out for transient examples that can be observed in ''shaped behaviour" (Geertz 1975, 10). Some on-farm and off-farm practices in some ways appear to become rituals at given periods of the coffee seasons because of their routinized performance. Weed and pest controls, pruning and mulching are value-addition on-farm practices that become routinized tasks and must be performed during every coffee season. According to the agricultural officer, 'many of the farmers cannot afford the pesticides', but instead resort to traditional methods of pest control which require effectiveness and should be done daily by all smallholder coffee farmers in their gardens.

I observed for instance that when the black coffee twig borers attack a coffee garden, the most affordable remedy is the manual activity of searching for the affected coffee plant branches and detaching or cutting them off from the rest of the plant. This should be done at the early detection of the pest attack before the whole coffee garden is affected. The affected and detached coffee tree branches are burnt in an isolated or secluded point to avoid re-spreading of the Black Coffee Twig Borer (BCTB). This preventive on-farm practice is what the AO referred to as the cultural or traditional preventive method adopted by smallholder coffee farmers. It is a preferred method because most smallholder coffee farmers cannot afford pesticides. This method is affordable and can be effective although it requires emotional entrainment because the farmers must visit their coffee gardens on a daily basis to identify and cut out affected coffee plant branches. If not done the whole garden often is affected and therefore lost as result. Some smallholder coffee farmers do it effectively while some stay complacent hence losing their entire gardens to the BCTB. The scene of an affected coffee garden is devastating that some smallholder coffee farmers give up on their gardens. In instances where smallholder coffee farmers are neighbours, the affected farmer can inform the neighbour because the pest are capable of freely wandering from one garden to another. The smallholder coffee farmers are often advised by the NCFA to be alert by doing daily checks and prevention concurrently in their gardens in order to avoid a spill over of the pest from one coffee garden to another. This pest control activity should be done by the entire neighbourhood of smallholder coffee farmers and daily until the pest is stumped out. Pest control is one of the on-farm practices that should be conducted by the smallholder coffee farmers, to keep a coffee garden free from pests in order to achieve a good quality coffee for harvest.

Coffee pests such as the Black Coffee Twig Borer diminish the coffee plant capacity to produce a good yield and sometimes lead to loss of the entire coffee garden. Pest control involves application of pesticides which are often costly thus smallholder coffee farmers resort to manual pest control. This involves detaching pest affected branches from the entire coffee plant, piling them and burning them. It’s always not a guarantee that pests will be eliminated from the garden. It requires daily checks of the coffee garden and coordinated approach among all smallholder coffee farmers to avoid spread. Pest control is a time consuming on-farm practice but also costly when pesticides are applied. Pest control aims at ensuring a good quality coffee harvest, and thus is a value- addition practice. It encompasses costs and can sometimes be risky when not properly performed or closely coordinated with other neighbouring smallholder coffee farmer. My day long visits and contact with the smallholder coffee farmers in their farming space provided me an opportunity to access this ‘living experience’ (O’Reilly 2009) and was an important entry point into the field site.

Considering that ethnographic research as a process involves more observation than interpretation, I observed coffee cherry picking at harvest, observed coffee drying on mats at the coffee farmers’ home front yards. I observed in the pruning of a coffee garden that had been heavily affected by the Black Coffee Twig Borer pest. I observed coffee seedlings preparation in coffee nursery bed. I participated in and observed two coffee seedlings planting activities as well as coffee tree training. I visited a coffee farmer and observed the preparation of fertilizers that are used by coffee farmers in their coffee gardens. I observed the NCFA activities that took place at the Luguzi coffee nursery bed. I observed a university students' training on coffee farm management and preparation of a coffee seed bed; I observed a coffee farmers' training for a group of smallholder coffee farmers that visited Luguzi Coffee Nursery bed from another regional of Uganda. Through observation, participating and collecting interviews, the challenges smallholder coffee farmers encounter became much clearer to me.

Coffee cherry picking at the time of harvest is an important on-farm practice that I observed and through participation it became clearer to me how coffee farmers determined the quality of coffee beans at harvest. One farmer explained to me that only red cherries are picked from the coffee tree excluding green beans or those already fallen on the bare ground. The green beans were not to be picked since they were not ripe. The beans that already lay on the bare ground were also not suitable for picking since they had already started fermenting due to the ground conditions; some decayed and moulded which made them a bad taste in a cup of coffee. While a mere observation of coffee cherry picking may be assumed as picking and collecting all coffee beans, by participating in this on-farm practice, I understood that picking only the ripe red cherries made sense of the maintaining quality coffee. However, there were other on-farm and off-farm practices that are as equally important, for instance drying the coffee beans every morning in the sun. Coffee beans are spread on a large mat on the ground and left to dry in the sun. This is done every day for a period of 4 weeks. It is a ritual I observed in almost all the front yards of the smallholder coffee farmers I visited. The storage of the drying coffee should also be free from any contaminations. Poorly dried and stored coffee beans can affect quality and taste of coffee. The need to guide this segment of coffee production became one of the rallying points for a regulation on coffee on-farm practices.

3.7 Participant Observation

I conducted participant observation to try and understand what smallholder coffee farmers' do in the attempt to add value to coffee with the help of farmers' associations. Through this method I sought to stumble upon clues, the peculiar and outliers. It was on my side hard to deduce what situations to observe that provide answers to my research question but through the day's long engagement with the smallholder coffee farmers, they would eventually share their experiences and challenges. Value-addition to coffee is not an idea smallholder coffee farmers instantly relate to, but has been initiated and emphasized by the NCFA under the umbrella organization NUCAFE. Smallholder coffee farmers have often simply grown their coffee, dried it on bare ground, sometimes stored it in the same space with domesticated animals such as hens and goats and simply sold it to middlemen or village stores to get some income.

Some smallholder coffee farmers are reluctant to practice value-addition because they regard any additional practices to what they are accustomed to as time consuming and costly. Some perceive coffee as a mere commodity to sell but not as a consumable beverage that should undergo some hygiene standards. Some smallholder coffee farmers have the perception that coffee is used in the manufacture of gun powder abroad hence requires no quality attention at farm level. The idea of improving the quality of coffee at the farm level is something new and thus requires constant reminder from the NCFA to the smallholder coffee farmers. Through the various trainings and engagements, smallholder coffee farmers are encouraged to adopt and undertake value-addition on farm and off-farm practices such as fertilizer application, irrigation, red cherry beans harvest, elevated drying and hygienic storage of the coffee in order to attain good quality and high yields of coffee, and therefore more incomes from the coffee.

Participating in and observing on-farm practices also made it clearer to me why the NCFA, NUCAFE and the government feel increasingly obliged to organize such practices. The new 'Coffee Law' that was enacted in 2021 is an effort to shape the coffee on-farm and off-farm practices in order to determine and improve the quality of Uganda's coffee. Without a central tool to organize and shape local agricultural practices, it seems likely that coffee quality remains compromised. Coffee quality at farm level needed to be safeguarded, the new coffee law of 2021 reminds us that we cannot understate the tendency for state to shape society through adopting policies (Wedel et al. 2005, 31).

I made daylong visits to these smallholder coffee farmers, starting in the morning, participating in coffee on-farm activities until end of the day. As Spradley (1980) points out, those observable social situations can be the Space: thus, the coffee farming space provided an opportunity to understand the day-to-day coffee farming practices and the smallholder coffee farmers' experience.

Participant observation as a method enabled me to access the coffee farming space and was an opportunity to live the experience of the smallholder coffee farmers through taking part in the coffee on-farm practices. Participation in on-farm activities created some level of trust between me and my informants.

I made day long visits in which I was able to engage in informal conversations with the coffee farmers. In most of these visits the smallholder coffee farmers often invited me home after working together in the garden and here they often openly shared with me their experience and challenges encountered in coffee growing. At another coffee farmer visit, after participating in the weeding of the coffee garden, we sat at the farmer's home where he served me cooked maize, some of these gestures were courteous yet I still had to maintain my role as a researcher.

The day's long 'prolonged engagement' (Lincoln & Guba 1994) with the smallholder coffee farmers enabled me to observe what the coffee farmers do and the physical characteristic of their social situation.

Embedded in the coffee farming space, I made field notes of the observations sometimes on the field site and often after. I observed what the coffee farmers did in their gardens, but also what they did at their homes after the coffee garden visits.

3.8 Interviews

During my visits to the coffee farmers, I listened in a systematic and meaningful way" (McKechnie 2008, 573) what they shared and told me in our conversations. I was able to have informal conversations with the smallholder coffee farmers on some occasions doing audio recording. It is in such moments that the ice was broken, and they shared their experiences with coffee farming. I could be able to relate what I observed and what they shared during the informal conversations, what they do and why they did certain things differently.

I adopted a mixed technique of interviewing involving structured, semi-structured and unstructured interviews in order to collect data. It became clear that due to the day's long engagement and participant observation, I needed to adapt my interview approach to suite given moments and situations during my visits to the smallholder coffee farmers. Scheduling dates for interviews in the case of the smallholder coffee farmers was less likely to yield success on my side due to unpredictable and unforeseeable circumstances on the side of the farmers. I therefore adopted unstructured interviews at spontaneous moments during my conversations with the coffee farmers every time I made a field site visit.

Before the beginning of every interview, I always requested for permission to interview and I explained my research project and why it was not only important to me but also to the coffee stakeholders, the government and the smallholder coffee farmers. Requesting consent and promising to be anonymous with the responses created a free environment to answer questions freely.

Unstructured interviews were useful in allowing the respondents to freely express and respond in their own ways with flexibility during the informal conversations. I often refocused the interviews when the respondents deviated from the asked question. In some of these interviews I did not follow pre-prepared set of questions but instead I generated them during our informal conversations. This allowed my respondents to freely respond while they felt no pressure that normally results from formal interviewing. I used this approach particularly during my conversations with the smallholder coffee farmers. This proved useful since in most cases I received detailed responses to my questions. I would skew the conversation to get specific in-depth responses to questions I came up with.

I used a structured interview method with the chairperson of the Namayumba coffee farmers' association, the representative of the coffee farmers' association at NUCAFE, the town mayor of Namayumba who is also a coffee farmer, the agricultural officer at the town council and a coffee farmer who was formerly a secretary at the Namayumba coffee farmers' association. These respondents provided a source of important information and therefore it was important I prepare a set of questions that needed specific responses.

I also adopted a focused group discussion when I visited a group of four young smallholder coffee farmers (aged between 18 and 23 years) who live in the same neighbourhood. These young coffee farmers are part of the NCFA and often help other farmers in the community who want to start coffee farming. They are involved in the trainings that take place at the Luguzi Coffee seed bed and help to train anyone interested in starting a coffee garden.

3.9 Bridging Ethnography

Conducting ethnographic fieldwork provided me a valuable insight in the agricultural practices of small coffee farmers in Namayumba Sub County. It helped me observe value-addition practices under the farmer ownership model propagated by the NCFA among its farmer members. I observed how smallholder coffee farmers strive to increase income from the coffee through adoption of the farmer ownership model. I observed the engagements of the NCFA with smallholder coffee farmers and other coffee farmers associations. I observed that value-addition practices are not fully grasped by some smallholder coffee farmers in the sub county since they were reluctant to adopt them in their on-farm practices. But I later understood that some smallholder coffee farmers viewed it as costly and time consuming because it meant more resources, farm inputs and time in the coffee garden.

The fieldwork provided me an opportunity to observe how some smallholder coffee farmers attempted value-addition in their on-farm practices, but still encountered household financial difficulties. I tried as much as possible to be part of the smallholder coffee farmers I studied so that I gained the 'insider's perspective' (Murchison 2010, 6). It was important to understand that the farmer ownership model encourages value-addition, but its adoption requires a level of investment from the smallholder coffee farmers. Since many smallholder coffee farmers mentioned lack of credit as an impediment to value-addition, it became clearer to me that financially strained small coffee farmers' households thus failed in their attempt to adopt these practices. The NCFA has continued to encourage its members to take up the ownership of the coffee they produce. The NCFA lacks the financial means to support its individual members but has coordinated the provision of trainings on value-addition including from planting, digging holes, water preservation, and fertilizer application in coffee gardens, proper drying and storage of coffee. It has also once coordinated the distribution of free pesticides from government to smallholder coffee farmers in Bugimba whose coffee gardens were heavily affected by the Black Coffee Twig Borer (BCTB). This distribution exercise was terminated by the UCDA extension officers due to mismanagement and lack of records on the distribution exercise at the village level. Since then, no further distribution of pesticides was conducted by the NCFA or UCDA. The government has not provided finance or credit to smallholder coffee farmers associations but has encouraged them to negotiate with banking institutions on their own.

However due to the lack of collateral security set as requirement by financial institutions/ banks, accessing financial credit has remained unattainable for smallholder coffee farmers in Namayumba.

It was important to observe that value-addition takes form of agricultural intensification, a process in which increased farm inputs in terms of labour or capital on a small holding of cultivated land are allocated to increase crop quality and quantity yield per given hectare of land (see more in Tiffen et al.,1994, 29; Boserup 1965, 43-44; Morrison 1994). In this process of intensification of production, often machinery and pesticides are substituted for labour in cultivation, weed and pest control; synthesized chemical fertilizers and results of a factory production system are substituted for labour intensive use of local ecosystem and local agro-pastoral systems.

It was important to learn that NUCAFE together with smallholder coffee farmers countrywide and other stakeholders in the coffee sector engaged with the government to produce a law aimed at safeguarding Uganda coffee quality at farm level. The idea of farmer ownership requires the adoption of value-addition practices and currently provides the only way to increase incomes for smallholder coffee farmers from the coffee they grow. Ensuring coffee quality at farm level also requires government intervention in form of a coffee law which in essence is in line with government strategy of increasing coffee export production. It was important to understand that value-addition initiatives by smallholder coffee farmers and government strategy of increased coffee export production are processes happening not independently but in interaction of one another.

4 Chapter 4

4.1 Theoretical Approach

In this thesis, I describe and explain value-addition attempts by smallholder coffee farmers within on-farm, off- farm practices aimed at increasing household incomes and the subsequent engagements under coffee farmers' associations and the government. Smallholder coffee farmers' associations encourage members through the farmer ownership model to adopt value-addition initiatives within their on-farm and off-farm practices. I describe how the engagement between the coffee farmers' associations and the government is aimed at safeguarding the quality of the coffee in order to attain competitiveness and better price at marketplace where import and export prices are determined by the western countries. I describe how value-addition and the engagements between the government and coffee farmers' association are defined by the national political economy through the coffee export production strategy.

The theoretical premise in this thesis attempts to ground agricultural practices of smallholder coffee farmers within the lager debate on agricultural intensification as I will discuss further. It likewise situates the practices and engagements between the small coffee farmers' associations and the government defined by the export coffee production strategy as development and dependency. When scrutinized, I find it plausible to conceptualize the coffee export production strategy within historical structural dependency (Cardoso & Faletto 1979), a framework whose validity can be applicable to commodity exporting countries in the periphery (global south). I contend also that the dependency approach is an old theory that faced criticism for adopting an ahistorical, fully-fledged, and formal theory that conceives underdevelopment in the periphery as a structurally permanent situation determined by world capitalist system. Its failure to explain contrasting development trends in the periphery is understandable yet, despite the theoretical and explanatory quagmire surrounding the orthodox dependency theory, conceptualization of development and dependency as elaborated by historical-structural dependency analyses still maintains validity when applied to the contemporary global conditions particularly the case I investigated.

The Uganda country vision 2040 aspires to transform subsistence agricultural production to commercial through value-addition to agro produce including coffee. Value-addition within on-farm and off-farm processes of the coffee value chain aims at responding effectively to both national and international market demands. It is also a way to enhance the country's coffee competitiveness at the world market, regain share in traditional coffee markets. Value-addition attempts by smallholder coffee farmers is promoted and supported by the UCDA. The goal here is to increase coffee exports and thus foreign incomes accrual from coffee while simultaneously providing employment and incomes to rural smallholder households.

As I have highlighted in the introduction, the interaction between the macro and micro level processes occurs interdependently and are defined by the coffee export production strategy. After deeper analysis, I observe consequences of these interactions and how they impact on local groups such as the smallholder coffee farmers. I observe also that not only external factors, but also internal factors account for the development trajectories in the periphery. Through anthropology I can examine these processes while grounding them conceptually to gain deeper understanding of their impact on local groups but also to inform processes at both macro and micro level. In the next paragraph, I will attempt to show that value-addition practices when adopted by smallholder coffee farmers intensify agricultural production, a process driven by economic aspirations. I will also further show that this process is happening in interaction with macro level processes in the context of the national development discourse through the export coffee production strategy.

4.2 Agricultural Intensification

Based on the ethnographic data collected, I try to analyse the agricultural practices of the smallholder coffee farmers in Namayumba Sub County, within the wider debate on agricultural intensification. Historically, forms of agricultural intensification in sub-Saharan Africa were uncommon or not documented but recent indigenous agricultural development suggests otherwise a tendency towards intensification of means of production. This recent trend therefore contrasts the 20th century capital intensive agricultural development in sub–Saharan Africa originating from the temperate regions that attempted to replace indigenous agricultural practices (Richards 1985).

The small coffee farmers in Namayumba are not any different from the 'smallholder' (Netting 1993, 2) as they share common salient features. Ethnographic observations attest to livelihood under scarce conditions, economic links and the ability to negotiate between both subsistence and market economies. They applied and practiced simple and intensive techniques of production while heavily relied on household labour on small plots of land (half an acre – one acre) on which arable crops banana, beans were intercropped with coffee. The arable crops were grown for the subsistence livelihood while coffee grown provided a source of income when sold as a cash crop.

There can be multiple ways of increasing output, in food production, intensification of production seeks to increase harvest from a constant land or increase the efficiency of production through labour. Processes of intensification of production can be varying and involve ‘addition of inputs up to economic margins, or involving inputs of capital, labour and skills against constant land’ (Brookfield 1972, 31-32).

Various studies in anthropology have examined processes of intensification of production, the origins and adoption of agriculture (Binford 1968; Bender 1978, 1981, 1985; Bronson 1975; Cohen 1977; Dennell 1985; Flannery 1965, 1973; Harris 1969, 1977; MacNeish 1958; Sherratt 1980; Zvelebil 1986), the development of irrigation (Adams 1966; Boserup 1965; Steward 1955). Some studies have shown that intensification of agricultural production entails increasing the productive output per unit of land or labour (or to some other fixed quantity) (Boserup 1965, 43-44).

Agricultural intensification is a process in which the average inputs of labour or capital on a small holding of cultivated land or cultivated and grazing land are increased to increase crop yield per given hectare of land (Tiffen et al.,1994, 29). Others have argued that intensification involves an increase in labour inputs per hectare; adoption of soil and water conservation techniques such as irrigation systems; the percentage of land under cultivation; the farming technologies used; the methods used to manage soil fertility; the crops selected; and the ways in which crops, and livestock are integrated (Mortimore 1995).

Agricultural intensification has also been described as a process in which family labour allocation increases in farm processes of cultivation, weed and pest control (see more in Adams & Mortimore 1997). It may also involve increased reliance on the application of local agro and pastoral based fertilizers in gardens in order to boost yield and quality of crop. These inputs substitute the application of machinery, chemical pesticides and synthesized fertilizers in gardens. Intensification is driven by local family household economic aspirations but can be a costly and risky agricultural practice to small farmers as the process does not always guarantee surplus incomes (Netting 1993).

This intensification is however a result of the need to produce crops for both subsistence consumption and market. Smallholder coffee farmers in Namayumba intercrop their coffee gardens with banana and grow other crops such as manioc, beans, maize and sweet potato in adjacent gardens for household consumption and sale. The production of such crops sometimes may not bring about yields of surplus food, but the local consumption of such crops guarantees 'domestic market' (Little & Horowitz 1987) and incomes to the smallholder farmers. The smallholder coffee farmers in Namayumba are neither substance nor market oriented but attempt to grow crops for both subsistence consumption and market as a way to gain incomes to solve household financial problems. This has been generally observed among smallholder farmers in sub-Saharan Africa. The need to improve crop quality and increase quantity yield in order to attain more incomes from the sale of cash crops brings about intensification of production on the small plots of land. The smallholder farmers engagement in cash crop production visa vie incomes attributed to intensification and cash crop production does not often support the widely held assumption on integration into market economies. In the case of coffee growing as a cash crop among smallholder farmers, land preparation and inputs in the initial years of coffee planting and gardening can be costly and time consuming since new coffee gardens require the daily attention of the coffee farmer.

The ethnographic data collected shows that smallholder coffee farmers of Namayumba in order to earn more from their coffee would need to adopt value-addition strategies within on-farm and off-farm practices. These practices are wide ranging and included Planting improved, approved and authorised coffee seedlings, adopting intensive techniques of coffee production, the reduced spacing (observed was the Brazilian style coffee spacing technique; irrigation and fertilization of coffee gardens; Intercropping coffee gardens with banana, Pawpaw and mango trees to provide shelter, others with bees to perform cross pollination on coffee trees). The smallholder coffee farmers also grew other crops such as manioc, beans, maize and sweet potatoes in adjacent small garden plots. They routinely conducted daily checks of the coffee trees for early detection and control of pests and diseases; they conducted stumping out old coffee trees to give space for new ones; weeding and mulching of coffee gardens.

Most coffee gardens I visited were on small plots of land ranging between half an acre and one acre with some holding up to 500 coffee plants. This was the average size of most coffee gardens. Coffee harvesting involves ensuring that only ripe or red cherry coffee beans are picked: I leant that picking only the red coffee cherries ensured and guaranteed a quality and good coffee taste at time of consumption. Due to the distribution of family labour among other crops in the gardens that require equal attention at given seasons, often some costs are incurred when extra labour is hired during coffee picking. Elevated drying and storing of the coffee beans in hygienic conditions ensured a good quality coffee; processing and grading of the fully dried coffee beans provided value to the smallholder coffee farmers.

Smallholder coffee farmers need to transport their dried coffee to a coffee processing and grading station thus incurring some costs all the way until they sell it to an exporter. Although they can earn a marked-up price for the processed coffee, some remain unenthusiastic about further value-addition due to imbedded costs hence prefer to sell their coffee to middlemen at the farm level. On-farm and off-farm coffee practices are not only labour intensive, but they also demand a level of commitment and carry financial costs implications, still undertaking value-addition remains essential. Due to lack of capital and the high costs of farm inputs for fertilizers, pesticides and herbicides, smallholder coffee farmers resort to simple and often laborious techniques of weed and disease control in their coffee gardens. Irrigation systems can be costly; inaccessibility to proper agricultural extension services and assistance has in some instances led to wrongly applying fertilizers not fit for coffee gardens and soil types, leading to damage and loss of entire coffee gardens. Despite growing coffee as cash crop, and practicing intercropping, still some smallholder coffee farmers preferred growing crops that are locally consumed and can easily be sold such as banana, manioc and sweet potatoes. Learning these challenges to some extent explained the modest attempts by smallholder coffee farmers to adopt value-addition strategies.

4.3 Historical Structural Dependency

The engagements of the small coffee farmers associations and the state can be analysed within the wider debate on development and dependency. Despite the dependency debate going decades back and a plausibility for post dependency exploration, I find relevance in discussing export coffee production in Uganda within historical structural dependence analysis. The orthodox dependency theory faced hurdles and denunciation, for explanatory weakness in accounting for contemporary development in the global south. It is also fair to argue that its salient contribution and 'more erudite versions' (Özekin 2020, 433) have been misconstrued or ignored. Historical structural dependence as an analysis offers a valid and explanatory strength when applied to contemporary conditions in the peripheral (former third world). It is an integrated and comprehensive approach that combines and simultaneously analyses political, economic, and social factors to account for the diverse trends of development wherever they have occurred in the periphery.

I choose the historical structural dependence as a framework of analysis for Uganda's coffee export production strategy because it considers multiple interacting factors in the analysis of development trajectories in the periphery countries. It considers class interests, institutional capacities of economic organizations, state and society relations and how the state interacts with the capitalist world economy. It considers underdevelopment or unequal economic growth in the periphery as resulting from multifaceted constrains both from internal and external factors and their on-going interaction but not necessarily as singly imposed by unequal structural exchange from the world economic system. By taking into consideration all these multiple factors and considering peripheral economies as not homogeneous entities, the historical structural dependence approach presents a formidable and bold argument beyond the orthodox dependence theory. It analyses the forms of economic integrations into the world economic system and what alternative development approaches are available to the peripheral within overall dependence (Özekin 2020, 434). I specifically attempt to show that the historical context, the interaction of the macro and micro processes, the agricultural practices and engagements of the small coffee farmers and their nature as smallholder are all equally important to examine. When these multiple factors are linked together, they offer a valid explanation and plausible way to look at the case I investigate here.

The historical structural dependence approach takes a historically sensitive analysis as I have mentioned in the case of Uganda coffee cash crop economy. Its non-reductionist: it analyses class-relations and their configuration; It analyses peculiarities of the state society relations; modes of dependency relations; modes of production as I have discussed with intensification of agricultural production among the smallholder coffee farmers; it analyses capacity of state institutions and how these impact development and dependence.

At the macro level, Agricultural development through value-addition has been prioritised to improve the country's foreign exchange and incomes for the rural smallholder households that grow the majority of the coffee produced in Uganda. The export of more coffee means more foreign income for the country but also furthers dependency on coffee export production. At least for now coffee production is viewed from this notion. At the micro level however, coffee production in Uganda is still predominantly 'smallholder farmers'[20] who although are not economically isolated, are neither subsistence nor market oriented but crosscut both economies. As discussed earlier, smallholder households by nature produce under conditions of scarcity; engage in intensive but with simple techniques of production, the intensive production and market engagement exposes them to various risks (weather, environment, techniques of production, price fluctuation of cash crops) often not observable with subsistence modes of production.

Coffee production in Uganda has remained at the initial stages of production that offer less rewards from the coffee commodity chain. In order to gain more profit from the coffee commodity chain, the government has prioritised upgrading through value-addition. Value-addition strategy has focused on on-farm and off-farm coffee related processes since these determine the quality of coffee before export. It is envisioned that good quality coffee will come from all value-addition attempts and these start in the coffee garden with the smallholder coffee farmers. A coffee law was enacted in 2021 to guide the coffee sector but mainly monitor on-farm and off-farm coffee related activities among coffee farmers. The law is seen as one way to safeguard the coffee quality right from farm level until it is exported to the last consumer. A good quality coffee export will enhance Uganda's coffee competitiveness on the world market. Many smallholder coffee farmers are unaware of the coffee law and its implications. In fact, value-addition attempts are modest since not all smallholder coffee farmers are keen on proper coffee picking, hygienic drying and storage.

[20] UGANDA VISION-2040. n.d. Accessed on December 1, 2022. Pp.45. VISION-2040.pdf (npa.go.ug)

Extension services are not readily accessible to most smallholder coffee farmers. Domestic consumption of coffee in Uganda is still low or has a long way to significantly raise national income. Export coffee production prioritization has been the long- and medium-term focus of the government in its endeavour to increase foreign income accruals hence the focus on 'value-addition'[21].

Export coffee production is part of the coffee commodity chain in which the nature of relationship is based on international capitalism which increases disparities between the global north and south. The interaction is hinged on an exploitative and unequal relationship in which the metropole (formerly referred to as first world) is in domination and the periphery (formerly referred to as third world) is in dependency (Hopper 2012, 35). This is a historical arrangement and has remained the same over decades. Anthropologists and historians have explored and analysed the various structures of dependency in the periphery. Amin 1974 for instance has cited historical processes such as colonialism as liable for setting in place cash crop economies in many former colonies. Others like Emanuel, 1972 argue that an imbalanced structure of the international economy in which terms of trade, controls of export and import prices at the marketplace is determined by western countries means low prices for primary commodities produced in the global south and high prices for manufactured goods produced in the global north. The dependency on export cash crop production whose prices are low and often fluctuate henceforth has repercussions in the periphery. From this point of view, an observation of cash crop growing countries positioned in the periphery suggests a continuation of dependency on export cash crop production with far reaching ramifications.

As Smith (1978, 577) urges analysis of dependency should consider dynamics in the periphery. The historical as well as the contemporary developments discourses in the periphery become important points of reference. The cash crop economy on which coffee export production in Uganda is based was initially determined by the colonial government. This set-in place a world economic basis of dependency in Uganda. This dependency continues as observed with the country's coffee export production strategy. Although 'World system' (Wallerstein 1974, 1979) avoids the analysis of internal processes of colonialism in the periphery (Smith 1978, 577), It nevertheless affirms the dependency theory that international capitalism ensued 'core' 'periphery' positioning of the north and

[21] UGANDA VISION-2040. n.d. Accessed on December 1, 2022. Pp.45. VISION-2040.pdf (npa.go.ug)

south thus export cash crop commodity production has been a predicament for many former colonial states positioned in the periphery. While foreign incomes from export commodities provide a source of needed incomes to export commodity-producing countries, the lack of power to determine terms of trade has an impact of continuous dependency. I also acknowledge the criticism level against the dependency theorists for largely basing thought on the economics and ignoring political, social, cultural and environmental factors that sustain the structures of the dependency in the commodity producing countries in the periphery (south). The role played by the local elites to sustain the dependency structures, corruption and authoritarianism in which unfeasible policies are pursued as strategies to economic growth and development should not be underestimated.

4.4 Export coffee production dependency

Historically the colonial administration in Uganda depended heavily on collection of revenues from export cash crop production among the African smallholder farmers (De Haas 2017). From this context, smallholder farmers have remained the major producers of export coffee on small land holdings. The coffee sector in Uganda has also largely remained export based, and the mode of production remains primarily developed to extract minimal surplus. The major actors in the coffee value chain range between researchers-seed suppliers, nursery bed operators/farmers under farmer organizations,[22] traders-processors under the processor and traders' association[23], and exporters under the exporter association.[24] The key actors are mainly aligned towards coffee export and thus most likely competing for the same customers in the market place abroad. Coffee exporters have mainly invested in coffee processing and grading stations as this offers them an opportunity to buy coffee cheaply from the smallholder coffee farmers which is then processed and graded for export at better prices. The coffee exporters and processors have also been able to access financial credit from financial institutions to better package the export coffee. Agro based credit from financial institutions has been readily provided to coffee exporters- coffee processors to promote their coffee export businesses. On the contrary, smallholder coffee farmers expressed lack of access to financial credit schemes exacerbated by their lack of collateral security in case of default thus were only able to

[22] NUCAFE – National Union of Coffee Agribusinesses and Farm Enterprises and UCFA | Coffee Uganda – Uganda Coffee Farmers Alliance

[23] Uganda Quality Coffee Processors and Traders Association (UQCPTA).

[24] Uganda Coffee Federation (UCF). whose membership also includes banks, insurance companies, forwarders and shippers. Uganda Coffee Federation – For sustainable coffee production and trade in Uganda

undertake modest value-addition. The dynamics in the coffee sector continue to promote coffee export production a continuation of a historical approach aligned within the dependency paradigm. The coffee market channels comprise of smallholder coffee farmers selling to small middlemen/traders and some selling to coffee buyers with small stores stationed in the villages. Some smallholder coffee farmers organized in farmer associations/cooperatives sell directly to exporters and some have tried exporting their coffee directly to customers. Coffee export production and annual foreign income accruals have grown in the last decade contributing an annual average of 15%[25] to the country's total export revenue. The national economy is inextricably integrated in the world system as a commodity producer. This has been further reinforced by policies such as the recently enacted National Coffee Act 2021 whose aim is to safeguard the quality of Uganda coffee in order to attain competitiveness at the world marketplace.

There is concerted emphasis on value-addition right from the coffee farm level all the way to the point of export.[26] This is aimed at determining a quality and competitive coffee commodity as well as increasing the incomes for the small coffee farmers. This however necessitates adoption of new agricultural production techniques and practices at on-farm and off farm level. The economic assumptions of commodity upgrading override the realities that less competitive coffee commodity producer countries encounter within the commodity chain in which multiple actors such as states, TNCs, multinational institutions all are competing for surplus (Talbot 1997, 58) and thus act in self-interest. Among sectors of prospect, the government of Uganda and its development partners have prioritised the coffee sector as a major driver to its transformation from a least developed country to a middle-income country by 2040[27].

[25] Uganda country coffee profile. n.d. Accessed on February 1, 2023. Pp: 11 (https://ugandacoffee.go.ug/sites/default/files/2022-03/Uganda%20Country%20Coffee%20Profile_1.pdf)

26 Uganda National Coffee Strategy 2015/16 - 2019/2020. Accessed on November 1, 2022. Pp: 22. https://ugandacoffee.go.ug/sites/default/files/2022-03/National%20Coffee%20Strategy%20Design.pdf

27 Uganda country coffee profile. n.d. Accessed November 1, 2022. Pp: 34. https://ugandacoffee.go.ug/sites/default/files/2022-03/Uganda%20Country%20Coffee%20Profile_1.pdf

4.5 Policy and regulatory reforms aligned to coffee production

The Uganda government development strategy has been reworked to follow a dependency trajectory when increased export coffee production is earmarked as key to achieving the middle-income status of the country. Such a strategy is effected through engagements and practices of the government, the UCDA with smallholder coffee farmers, coffee farmers associations and key actors in the coffee sector. The decision to grow coffee although is driven by small household farmers' economic aspirations to earn incomes to solve household problems. The engagement in coffee production is seen as one way to attain financial income stability in the smallholder farmer family household. The formulation of new policies to guide on-farm and off-farm practices of smallholder coffee farmers reinforces, and is informed by such a government strategy.

Export coffee production has increased over years and continues to be a significant contributor to the country's foreign income thus government through the UCDA has set forecasts to export 12 million 60 kg bags of coffee by the year 2040.[28] As the table 2 below shows, coffee exports have doubled over the years from 3.1million bags in the year 2010/2011 to 6.4 million bags in 2020/21. The growth in export coffee production is projected by the UCDA to continue until the year 2040. The engagement between the Ugandan government and its development partners particularly the World Bank has resulted in the development of strategic policies aimed at increasing coffee export production. Some notable policies are an outcome of a framework and strategic vision for 2040 in which a clear commitment to export coffee production has been undertaken. These include the Uganda National Development Plan 2 (2015/16-2019/20); the National Agriculture Policy and its implementation framework-the Agriculture Sector Strategic Plan (ASSP) 2015/16-2019/20; the National Coffee Policy 2013 and its Implementation Framework-National Coffee Strategy 2015/16-2019/20. Most recently in 2021, a coffee law was enacted as an ACT of parliament. The engagements between small coffee farmers' association leadership, key actors in the coffee sector and government were instrumental in the process of formulation of the first ever coffee law in Uganda.

[28] Uganda National Coffee Strategy 2015/16 - 2019/2020. Accessed on November 1, 2022. https://ugandacoffee.go.ug/sites/default/files/2022-03/National%20Coffee%20Strategy%20Design.pdf

Table 2. Uganda coffee exports since 2010

	COFFEE	QUANTITY		VALUE	VALUE
No.	**Year/ Season**	**(60 Kg Bags)**	**MT**	**US $**	**US $/Kg**
1	2010/11	3,149,423	188,965	448,890,669	2.38
2	2011/12	2,726,249	163,575	392,698,138	2.40
3	2012/13	3,582,629	214,958	432,694,059	2.01
4	2013/14	3,499,829	209,990	393,922,335	1.88
5	2014/15	3,455,852	207,351	410,564,121	1.98
6	2015/16	3,315,567	198,934	326,676,251	1.64
7	2016/17	4,605,158	276,309	544,587,628	1.97
8	2017/18	4,305,597	258,336	462,828,907	1.79
9	2018/19	4,439,968	266,398	433,964,269	1.63
10	2019/20	5,359,970	#DIV/0!	512,333,404	1.59
11	2020/21	6,498,941	-	627,184,756	1.61

Source: UCDA Database

4.6 Financial incentives to coffee processing and exporting companies

The number of coffee exporters has also grown gradually an indication of favourable export trading terms and requirements set by the government. Table 3 below shows coffee exporting companies that are currently active and buying coffee from smallholder coffee farmers for export. This number has grown from a handful of coffee exporting companies twenty years ago to over thirty-five active exporting companies currently. Financial credit facilities have been expeditiously extended to actors within the coffee chain particularly coffee processors and exporters. The financial and commercial banks have provided export performance bonds executed through insurance companies to coffee exporting companies. The engagement of UCDA and the Uganda Development Bank (UDB) has led to a signing of a Memorandum of Understanding (MOU) in which continuous corporation and support to actors in the coffee value chain has been reaffirmed. The UDB has also provided relatively low credit interest rates to coffee business/traders and women an indication of commitment to support coffee exporters. The Central Bank of Uganda has also provided an Agricultural Credit although it has mainly benefitted large coffee companies.[29] Smallholder coffee farmers expressed the need to access agro based micro finance credit schemes such that they can invest in value –addition within the coffee on-farm and off-farm practices.

Table 3. Registered coffee exporters by 2015 – 2016

S/No.	Name
1	Kawacom (U) Ltd
2	Great Lakes Coffee Company Ltd
3	Nile Highland Arabica Coffee Farm's Assoc
4	Risala (U) Limited
5	Bakhsons Trading Co. (U) Ltd
6	El'Cafino Uganda Limited
7	Olam Uganda Ltd
8	Ugacof Ltd

[29] Uganda Country coffee profile. n.d. Accessed November 1, 2022. Pp: 24. https://ugandacoffee.go.ug/sites/default/files/2022-03/Uganda%20Country%20Coffee%20Profile_1.pdf

9	NUCAFE Ltd
10	Kyagalanyi Coffee Ltd
11	Zigoti Coffee Works Ltd
12	Besmark Coffee Company Limited
13	Ishaka Quality Commodities Ltd
14	Sena Indo (U) Ltd
15	Bakhita Twase Produce Ltd
16	Commodity Solutions (U) Ltd
17	Ideal Commodities (U) Ltd
18	Bukonzo Joint Co-operative Union Ltd
19	Mbale Importers & Exporters Ltd
20	Coffee World Ltd
21	Export Trading Company(U) Ltd
22	Bakwanye Trading Co.Ltd
23	Kampala Domestic Store Ltd
24	Armajaro Uganda Limited
25	Karazi Coffee Factory Limited
26	LD Commodities (U) Ltd
27	Banyankole Kweterana Cooperative Union Ltd
28	Savannah Commodities Co. Ltd
29	Ibero (U) Ltd
30	Ankole Coffee Processors Ltd
31	Kibinge Coffee Farmers Co-operative Society Ltd
32	Ankole Coffee Producers Coop Union Ltd
33	Kaweri Coffee Plantation Limited
34	Coffee Cup Services
35	Nakana Coffee Factory Ltd

Source: UCDA Database

5 Chapter 5

5.1 Value-addition practices and engagements of the smallholder coffee farmers.

The subsistence modes of crop production have for long provided livelihood for rural farming households but changes in the indigenous modes of agricultural production are taking place due to various factors including economic aspirations. The practices and engagements aimed at value-addition are some of the forms of agricultural intensification unfolding among rural smallholder coffee farmers' households in Uganda. This process is however a recent development and happening in interaction with a specific national development impetus in the case of coffee production in Uganda. The government of Uganda is engaged with small coffee farmers associations in the promotion of value-addition at farm level in what has been argued as commitment to improving smallholder coffee farmers' incomes through coffee production for export. Smallholder coffee farmers in Namayumba who desire to increase their household incomes are attempting to adopt value-addition practices with the assistance of the NCFA. The extent to which smallholder coffee farmers adopt the value-addition practices and engage with the NCFA depends on resources they can access. This chapter will discuss the various practices and engagements of smallholder coffee farmers under NCFA aimed at value-addition to coffee.

5.2 Value-addition at Luguzi coffee nursery bed

The Luguzi coffee nursery bed is one of the value-addition initiatives undertaken by a smallholder coffee farmer, the chairman of the NCFA. This is an authorized coffee nursery bed in Namayumba Sub County. Here coffee seedlings can be prepared and distributed to new small coffee farmers. This coffee seedlings space has a variety of new and approved coffee variants for demonstration to the smallholder coffee farmers. The coffee garden here is made up of improved and approved coffee seedlings which are at the same time prepared and provided to new and old coffee farmers. This initial stage of a coffee seedling preparation is deemed essential in the value-addition process because it is the first stage of coffee quality determination. Improved coffee seeds are essential in adding value since they are generated to grow in a short period of time (some about six months) requiring minimal water but also resistant to common coffee diseases such as coffee wilt disease. By introducing these seedlings into their gardens, smallholder coffee farmers are still assured of a coffee yield even in instances of scarce water and disease incidences. At the coffee nursery bed, the improved coffee seedlings are prepared and eventually sold to new and old coffee farmers. Small coffee farmers are encouraged to stump out old coffee trees from their gardens and replace them with these new improved and approved coffee seedlings. The same coffee farmer provides trainings to new coffee farmers, coffee farmers' associations and University students. Figure 5 below, shows university students and young smallholder coffee farmers learning how to prepare coffee seedlings in a coffee nursery bed. The farmer also provides consultancy in form of initial on-farm coffee activities that are usually labour intensive and require some prior expertise when starting and managing small and large coffee gardens. The initial phase of starting a coffee garden involves land assessing and clearing, pit digging, irrigation water damming, coffee seedlings preparation, coffee planting at the right time, coffee garden training. This is provided to any new coffee farmer at a fee until a time when the coffee garden is ready to grow on its own. This coffee nursery bed has positioned itself as a centre for training and is supported in collaboration with CURAD to promote growing of improved coffee varieties.

Figure 5. Preparation of coffee seedlings in a coffee nursery bed

5.3 The Brazilian style coffee spacing technique

This technique of coffee production is exhibited at the Luguzi coffee nursery bed. This new coffee garden spacing technique is the Brazilian method coffee spacing (3metres by1metre). It involves – 3 metres spacing between rows of the coffee plants and 1 metre spacing between coffee plants in every row in a coffee garden. The reduced spacing in coffee gardens provides possibility for a farmer to plant 1,333 coffee plants in an acre of land. The aim of the reduced spacing is to maximize the coffee output from an acre of land. Unlike the traditional coffee garden spacing method in which coffee farmers plant only 450 trees of Robusta coffee in an acre of land at the spacing of three meters by three meters. This new technique of coffee spacing is propagated by the NCFA among new and old smallholder coffee farmers. Figure 6 below, shows some of the coffee garden that have adopted the Brazillian spacing technique. These gardens only grow coffee trees in a spacing of 1 meter the coffee trees and 3 meters between the coffee tree rows. This technique was introduced by the executive director of NUCAFE, and it is sometimes called the 'Nkandu' style of coffee planting named after his name. Several new smallholder coffee farmers with small plots of land ranging between half an acre to two acres are adopting this intensive coffee production technique. Adoption of this technique is understood as value adding because it aims at doubling coffee production on relatively smaller portions of land. The NCFA is engaging smallholder coffee farmers to increase coffee output on their small plots of land through the practice of the Brazilian spacing method and other good agricultural practices (GAPs). A high yield of coffee means more income for the smallholder coffee farmers.

Figure 6. Coffee gardens that have adopted the Brazilian spacing technique.

The change in agricultural practices at the local level that refocuses smallholder farmers to crop commercialization has been referred to as the "indigenous intensification of cultivation' (Finnis 2006, 366). Various factors however are responsible for shaping local agricultural practices and how small holder farmers get integrated into market economies.

Adoption of these new techniques within agricultural production practices of smallholder farmers has impacted and changed local experiences in various ways (Grossman 1998; Rigg 1987). However, local impact of the new agricultural techniques of production has not been fully grasped because not enough evidence-based research has been conducted so far. Little is known on how much value such new techniques of production add to the coffee or whether incomes increase even after adoption. This Brazilian method/ spacing style is yet to be documented and approved for adoption by the NARO. The adoption of the Brazilian method of coffee spacing is an issue of contention between the NCFA and the Agricultural Officer (AO), who is the government representative at the Namayumba town council. The AO referred to it as 'one of the challenges coffee farmers are facing in Namayumba area'. It has been reported that coffee planting using this technique requires high maintenance of the coffee plantation in terms of water, fertilizers, and labour everyday which most smallholder coffee farmers in the region cannot afford. According to the AO, the anticipated high output turns out to be low and poor quality because the farmers fail to provide all the necessary resources needed by the coffee garden. The NCFA propagates this Brazilian spacing method as a revolutionary technique of coffee planting that will ultimately increase the coffee farmers' yield and incomes if adopted. Some new smallholder coffee farmers have adopted the Brazilian spacing technique, while a few older smallholder coffee farmers tried it out, most old small coffee farmers with aging coffee gardens preferred to maintain the old coffee spacing techniques due to fear of loss of coffee harvest during the period of transition to the new Brazilian spacing method.

Some old smallholder coffee farmers expressed the increased farm inputs requirements of the new Brazilian method of coffee spacing (3 metres by 1 metre spacing in coffee gardens). This was mainly reflected in the increased need to utilize fertilizers, water irrigation and use of pesticides in coffee gardens something that carried financial implications on small holder coffee farmers. If fully adopted by coffee farmers and approved by NARO at some point in future, it will symbolize the impact of small coffee farmers' practices and their influence on agricultural policies and the law in Uganda.

5.4 Fertilizers application in coffee gardens

Coffee gardens require fertilizers at the beginning of planting and through the growing seasons to maintain and boost the coffee yield from the gardens. Value-addition practice among smallholder coffee farmers has emphasized the importance of fertilizer application in coffee gardens. It has become an essential agricultural practice in order to produce well-developed and nourished coffee cherries that lead to good quality coffee. Often coffee farmers must buy costly fertilizers yet sometimes the quality of fertilizers is substandard when bought randomly from traders. Smallholder coffee farmers can readily buy organic fertilizers for their coffee gardens prepared by a coffee farmer who is also a member of the NCFA. Figure 7 below, shows a coffee farmer who is also a member of the NCFA, preparing the organic (*Biokya*) fertilizer for the coffee gardens. The farmer prepares and produces organic fertilizers to use in her coffee garden but also for sell to other smallholder coffee farmers within the farmers' association. The fertilizers have been proved efficient by the district agronomist after carrying out assessment and analysis tests. After every harvesting period, coffee farmers need fertilizers to boost the soil nutrients in the coffee gardens. Smallholder coffee farmers can buy the fertilizers from a fellow association member, and they are in return provided with all the advice during the application of the fertilizers in the coffee gardens. The smallholder coffee farmers are often in coordination and in contact with each other particularly through the association meetings and activities. Smallholder coffee farmers also improvise by applying animal and plant-based compost (a mix of droppings from rabbits, poultry and goats and plants) to produce fertilizers for the coffee garden. Such processes also require labour and time to produce the fertilizer including its application in the coffee garden.

Figure 7. Preparation of a fertilizer (*Biokya*) by a coffee farmer member of the NCFA

5.5 Intercropping of coffee gardens with Banana crop

Smallholder coffee farmers in Namayumba practice intercropping in their coffee gardens with banana crop as a way of mitigating seasonal losses associated with drought periods and coffee diseases. Intercropping in coffee gardens is a value-addition practice aimed at producing a good quality coffee. It has been observed as another way smallholder coffee farmers attempt to ensure both incomes from their coffee produce and banana crop through a sustainable domestic food production. Intercropping with Banana crop provides natural shades to the coffee gardens so that the coffee trees can grow and develop with little impact of the sun during long dry seasons. Figure 8 below, shows smallholder coffee gardens intercropped with banana crop. Some studies have considered the practice of intercropping as, a copping mechanism for small holder farmers to ensure food security and diverse diets (Isaacs et al. 2016), resource efficient (Trenbath 1986; Francis 1989), others have suggested it as a practice able to mitigate risks and losses of crop among small farmers (Jodha 1980; Lithourgidis et al. 2011; Rusinamhodzi et al. 2012), pest control (Trenbath 1993), productivity (Fukai and Trenbath 1993), others have explored economic returns (Francis and Sanders 1978).

Both coffee and banana are regarded as cash and food crops in Uganda that can provide a source of income to rural smallholder farmer households. While coffee is grown entirely for export, banana is a staple food consumed and sold domestically. Coffee plants take several years to achieve initial coffee produce a period that can be financially challenging for the small coffee farmers. Intercropping with banana crop is practised to mitigate effects of drought and coffee wilt disease which often adversely impact smallholder coffee farmers. Banana crops provide shade in coffee gardens, banana leaves and stalks provide material for mulching reducing weed infestations that often require manual labour or herbicides to control. Banana crops provide both food for subsistence consumption as well as source of income when sold in the market.

Figure 8. Coffee gardens intercropped with banana, paw paw, mango trees and bee hives

5.6 Weeding and pest control

Weed and pest control is a value-addition practice since aimed at safeguarding the quality of the coffee produce. Smallholder coffee farmers practice weed control by mulching the coffee gardens. Others apply herbicides to reduce and control undesirable weeds that often compete for resources with the coffee plants. The more nutrients coffee trees can acquire from the soil, the more coffee cherries produced and better their quality. A weed and pest infested coffee garden will produce a poor quality and low yield coffee. Smallholder coffee farmers practice pest control either manually or by applying pesticides, which are often costly, on a few occasions they have received them free of charge from the district agricultural office. Figure 9 below, shows a pest infested branch of a coffee tree and a brochure provided by UCDA to guide smallholder coffee farmers on pest control. Smallholder coffee farmers practice intercropping and manual pest control in the case of the Black Coffee Twig borer to control the spread of pests in their coffee gardens.

Manual pest control can be demanding and requires daily attention to the coffee garden. It involves a farmer isolating, cutting and detaching the affected coffee branches from the entire coffee tree. That means several hours of identifying affected coffee trees, cutting, detaching and later burning them to destroy the pests. This is a necessary practice undertaken by smallholder coffee farmers in order not to lose their entire coffee gardens to pests and be able to attain coffee yield at the end of the season. These practices are done throughout the coffee season as weeds and pest frequently grow and spread within coffee gardens.

Figure 9. Pest affected branch of a coffee tree

5.7 Water conservation and irrigation

Water conservation and irrigation is also another technique of value-addition to the coffee garden. Water conservation involves mulching in coffee gardens. It also involves creating water dams along coffee gardens to conserve water during the rainy season, which can be used later for irrigation in dry seasons. Irrigation ensures enough water needed by the coffee trees. The more water coffee trees can intake, the more they are able to produce well-nourished and good quality coffee beans. Among the smallholder coffee farmers, I visited is 'John' a member of the NCFA who owns about two acres of a flourishing coffee garden with a water irrigation system erected to maintain a stable flow of water needed for the coffee garden. He can harvest a considerable tonnage of coffee from his two acres of coffee garden, yet this is still elusive for the many other smallholder coffee farmers I visited. This is only possible because he was able to install a water irrigation system in his coffee garden, thus providing sufficient water needed by the coffee plantation. Figure 10 below, shows an elaborate irrigation system in a coffee garden that ensures sufficient water supply for the coffee garden. He can maintain a good quality coffee because of the management systems he has put in place at his coffee garden, he has also invested more in his coffee garden unlike other smallholder coffee farmers that have inherited coffee gardens from their families and lack access to credit to adopt some of these techniques. It was quite visible that John had access to financial and other resources unlike other smallholder coffee farmers I visited. Although I never got an opportunity to interview John because of his busy schedule, I was taken around his coffee garden by his coffee farm manager who is responsibility for the coffee garden. I later learnt that John is a deputy director at the NUCAFE where he oversees and ensures operational performance with efficiency and sustained productivity for enhanced profitability of all NUCAFE operations from agro-processing to value-addition initiatives including effective implementation of the Farmer Ownership Model. John's coffee garden is therefore a model for demonstration of a coffee garden under value-addition practices. When I interviewed the AO of Namayumba, she mentioned John as one of the few smallholder coffee farmers who can afford implementing the new intensive technique of coffee production because he 'can easily get certain resources' and has 'access to certain resources', he can afford a good irrigation system, as well as fertilisers. His position in the farmers' association enables him at least to effectively adopt value-addition practices within his on-farm and off-farm coffee activities. I also visited another new smallholder coffee farmer with half an acre of new coffee garden with the Brazilian spacing technique and a water irrigation system installed. He had invested quite a reasonable amount in his garden though it was still a new garden. The installation of such an elaborate irrigation system in a coffee garden can be costly and thus requires a significant amount of investment which most smallholder coffee farmers I visited may not be able to afford.

Figure 10. Shows ground irrigation water pipes, a water storage tank, water dam/reservoir, underground water pump and solar panels to power the system.

The value-addition techniques are understood as vital to achieving a good quality and high yield coffee, yet they also carry a financial implication in terms of investment. This was also supported by the ED of NUCAFE in his argument that some level of investment is needed at the farm level on the part of smallholder coffee farmers. He urged that:

'The higher the quality, the more money this farmer can see. So, it is important that at the farm level things are done right. Good agricultural practises, good post-harvest. You know, handling practises because we want to earn more money at the farm level and quality starts in the farm. It is never created anywhere else. OK, like they say charity starts at home. Quality over coffee starts at the farm. The variety of coffee you pick the practises that you do on that coffee.'

'You know the good quality coffee comes from some level of investment that is required also, whether via watering, whether via mulching or all these aspects are important. So, the point I'm making, and I summarise, quality starts in the farm and the farmer is the determinant of that quality based on the practises the farmer applies. OK, and then later it is maintained by other stakeholders. When coffee exchanges hands to the next transporter.'

Some smallholder coffee farmers mentioned the lack of access to credit as precluding their ability to adopt value-addition techniques that require a significant level of investment as observed with an irrigation system. Water remains one of the essential coffee farm inputs as sufficient water improves the quality of the coffee harvest. It's also possible that smallholder coffee farmers can improvise and adopt less costly techniques of water irrigation such as using water bottles; still even improvised techniques would require some level of investment in time, labour and finance.

5.8 Coffee tree stumping

The NCFA encourages smallholder coffee farmers and its members to stump old coffee trees and rehabilitate less yielding and abandoned coffee gardens. Stumping is a value adding practice that involves getting rid of old coffee trees that can no longer produce enough coffee cherries. When old trees are detached from the entire coffee stem, new branches sprout that can produce more and good quality coffee cherries. However not all the smallholder coffee farmers I visited were keen on practicing stumping due to fear of losing the little coffee that would be collected from the old coffee tree. Some expressed content with their small coffee gardens with aged coffee trees if they still could harvest some coffee and sell it to support their subsistence livelihood. Often it may also have to do with the lack of access to resources. Smallholder farmers sometimes lacked access to proper information and training on good agricultural practices. This is something I observed mainly among the smallholder coffee farmers that were not members of the NCFA. In fact, coffee farming to some was an inherited cash crop venture; some owned overgrown and old coffee gardens (over twenty years) that appeared rarely attended to. Figure 11 below shows two coffee gardens that are quite in contrast to one another. A coffee garden with old overgrown coffee trees and yielding less (left) and a new coffee garden and capable of maximum harvest (right). Intercropping of coffee gardens with food crops to supplement subsistence livelihood is a common practice I observed among many smallholder coffee farmers I visited. Some smallholder coffee farmers were not keen on stumping out old trees to introduce new ones but instead preferred to retain old coffee trees so long as they could still harvest some coffee for sale after the harvest season.

Figure.11. Overgrown aged coffee garden under traditional 3metre by 3metre spacing versus new coffee garden under 3meter 1 metre spacing.

5.9 Coffee harvesting and post harvesting practices.

Smallholder coffee farmers are encouraged to pick only the red coffee cherry beans during harvest. Value-addition emphasizes that only red cherry coffee beans should be harvested in order to ensure a good quality coffee harvest. Figure 12 below shows unripe green coffee beans that should not be harvested and red cherry coffee beans that are ready for harvest. Many smallholder coffee farmers are not keen at this practice as some still harvested both green and red coffee beans to make more weight for the coffee bags when sold. Smallholder coffee farmers also sometimes pick coffee beans that fall to the ground. Such beans should not be picked and included in the harvest because they are contaminated and decayed while on the ground. This practice still happens among smallholder coffee farmers that don't subscribe to any coffee farmers' association and sell their coffee harvest to coffee traders/middlemen. This practice however undermines the quality of coffee at farm level since green beans are not ripe or mature to be harvested and when added to the coffee make a bad taste of the whole coffee beverage.

Figure 12. Green coffee beans (not for harvest) and red cherry coffee beans (ripe for harvest)

Value-addition involves proper drying of the red coffee beans on elevated platforms or in coffee dryers (see photo in figure 13) or at least on tarpaulin in order to avoid contamination with the bare ground. Several smallholder coffee farmers cannot afford installing coffee dryers but instead are able to consistently dry coffee on Tarpaulin (see figure .14). Some small coffee farmers still dry coffee beans on bare ground and unbothered by the drying standards. Some financially able smallholder coffee farmers have erected coffee beans dryer in order to maintain stable drying conditions for harvested coffee. One small holder coffee farmer I visited told me how she was interested in putting up a coffee dryer, but the lack of finances impeded this goal. Although some NGO had promised to build her one, this promise had never been fulfilled. I promised to contribute some amount for her to realize her goal. The lack of credit for some smallholder coffee farmers presents challenges to their effort towards adopting given value-addition practices.

Figure.13. Coffee beans drying in a coffee dryer with shelves and on elevated platforms.

Figure. 14. Coffee beans drying on tarpaulin outdoor and storage

5.10 Coffee processing and grading

Value-addition involves processing and grading the dry coffee beans before they are packed for export. This practice is considered value adding because when undertaken by the smallholder coffee farmers, they benefit by way of an increased price per Kilo of coffee beans. This off-farm practice is mainly carried out by coffee trader-processors who are not members of NUCAFE. The farmer ownership model encourages smallholder coffee farmers to take up the role of processing and grading the coffee they grow to earn more income. NUCAFE performs coffee processing and grading for its small coffee farmers' associations as a way of strengthening their capacity and position in the coffee value chain. Figure 15 below shows coffee ready for processing and grading at a NUCAFE coffee processing and grading station in Namanve. This coffee is mainly collected from small coffee farmers associations and once it is processed and graded, the coffee farmers association can sell it at value added price per Kilo. That means small holder coffee farmers receive an increment in the price of the coffee per kilo. Some coffee traders/processors however still visit smallholder coffee farmers deep in the villages and offer cash for their coffee including coffee flowers (These are flowers on coffee trees before turning into coffee cherries in the garden). Because some farmers need urgent cash to solve their domestic problems, they end up selling off their coffee quickly sometimes including unripe (green cherries) coffee. NUCAFE strongly believes that as many smallholder coffee farmers adopt the farmer ownership model, a change in attitude also transcends to the coffee trader-processors who later realize that their unscrupulous actions of buying unripe coffee from coffee farmers are unsustainable for the future of coffee production. Their actions threaten to impede the capacity to increase coffee production on the farmers' side but also for the coffee traders. Coffee trader-processors are encouraged to focus on investing in the processing and grading stations in which the coffee from the smallholder coffee farmers can be processed and graded at a fee. In this way they maintain their position in the value chain but also contribute to helping raise incomes for smallholder coffee farmers who bring their coffee produce for processing and grading. Some coffee trader-processors have set up coffee processing and grading stations in coffee growing communities in order to buy and process coffee from the farmers and coffee farmers' associations. I visited a small coffee processing and grading station in Namayumba whose owner was in fact not a member of the NCFA. This is one of the few coffee processing and grading stations available in this community. Smallholder coffee farmers took their coffee for processing and grading and paid a fee per kilogram for this process. But still some few coffee farmers sold their coffee to this coffee trader-processor for a low price because they needed money urgently to solve their domestic needs.

Figure.15. Coffee processing and grading at NUCAFE

6 Chapter 6

6.1 Engagements between coffee farmers' associations, government, and agencies

In this chapter, I will discuss engagements between the coffee farmers' association, the government and other agencies that drive value-addition within the coffee sector. These engagements can be observed as aimed at improving coffee quality and increasing incomes from coffee production. Whether it is the coffee law of 2021, the trainings to smallholder coffee farmers, the extension support provided by the UCDA, the collaborations between coffee farmers' associations and any other agencies, the on-farm and off-farm practices adopted by the smallholder coffee farmers. These engagements are in interaction with one another and legitimized by a particular national development discourse through agricultural modernization. Value-addition is viewed as one way to increase incomes from coffee export production and incomes to rural household. In the absence of such engagements, it is assumed that the quality of coffee remains poor at farm level and therefore uncompetitive, Uncompetitive coffee at the world marketplace leads to low incomes for coffee produce and rural farmer households remain poor. These engagements become a focus since they impact on local agricultural practices in various ways.

6.2 The coffee law of 2021

Coffee farmers associations under the stewardship of NUCAFE adopted the farmer ownership model as an avenue to regain ownership of the coffee grown from coffee traders and middlemen who still determine coffee prices at farm level. NUCAFE required support through a policy framework that would guide and act as point of reference for the coffee sector. The coffee farmers through the leadership of NUCAFE therefore took up the mantle and advocated for the policy on coffee. Policies in many ways have been viewed as instruments government and private actors adopt in attempt to organizing and shaping behaviour in society. The National Coffee Act of 2021similarly aims at organizing and shaping practices of the smallholder coffee farmers at farm level. The goal of this new legislation was to bring about sanity and discipline at the coffee farm level. There was urgent need to safeguard Uganda's coffee quality at farm level so that it remained competitive at the global marketplace. Rampant unscrupulous actions by some coffee traders, middlemen and smallholder coffee farmers at the farm level have been reported. Issues reported were, harvesting of unripe coffee beans, unhygienic drying and storage at farm level. These remain an existential threat to the quality of coffee and the value it eventually attains. The need to protect the intrinsic quality of the Uganda coffee warranted a coffee legislation. The better-quality coffee is highly priced and that means higher income for the coffee farmers. Coffee is not only marketed by quantity but also by the quality it has undergone and therefore traceability becomes an important element. Traceability is currently an essential component of the speciality coffee market segment. If one can tell a story behind the coffee they are producing and presenting in the marketplace, the buyer will likely continue buying it. This is what galvanized NUCAFE to advocate first for the national coffee policy and then the national coffee law.

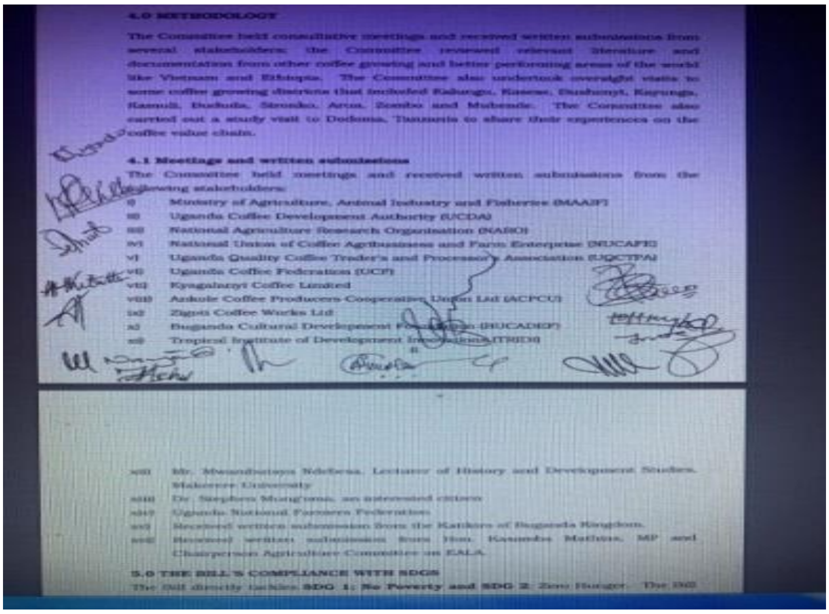
A tremendous amount of input in the legislation on coffee on-farm and off-farm activities in the Coffee bill of 2018 is an outcome of extensive discussions between NUCAFE and coffee farmers' associations' countrywide. NUCAFE was an initiator and as well participated in all consultations with stake holders including the formulation, plus influencing the implementation of the coffee policy and its operationalization. A lot of consultations were done, and an issues paper was put together with all the issues that justified the cause for the enactment of the coffee law. These issues justified the motive for formulation of the national coffee law and were contributed partly by the small holder coffee farmers and other stake holders.[30] The parliament invited key stakeholders including NUCAFE and interfaced with the committee of parliament to contribute the smallholder coffee farmers' views.[31] Figure 16 below shows a copy of an undersigned document by key stakeholders in the coffee sector that participated in the consultations with parliamentary committee before the coffee bill 2018 was tabled in parliament. After meeting with the different stake holders in the industry, the parliamentary committee also moved to regions to make further consultations. It became clear to me that the most widely and consulted law before enactment and formulation is the national coffee policy and the national coffee law. Despite wide consultation for a national coffee law, policies have gained an increasing role in the organization of society whether they are initiated by government, businesses or private actors. Policies tend to connect various actors in 'complex power and resource relations' (Shore et al. 2005) at the same time producing new

30 Ernest Jjingo, 9 August 2019. The Observer: Farmers welcome proposed coffee bill with amendments. Accessed on February 1, 2021. https://observer.ug/businessnews/61614-farmers-welcome-proposed-coffee-bill-with-amendments

31 AAIF3-20-Report on the National Coffee Bill 2018. February 2021. Accessed on February 1, 2023. pp. 6-7. AAIF3-21-Report on the National Coffee Bill, 2018. 1pdf (1).pdf

categories of groups as we can observe here with the coffee law in Uganda. The Coffee national law has specific focus on-farm and off-farm practices of smallholder coffee farmers in the drive to value-addition. It shows how government attempts to organize and shape local agricultural practices among smallholder coffee farmers at farm level.

Figure 16. Key stakeholders from the coffee sector in attendance during the consultation meeting with the parliamentary committee



4.0 METHODOLOGY

The Committee held consultative meetings and received written submissions from several stakeholders; the Committee reviewed relevant literature and documentation from other coffee growing and better performing areas of the world like Vietnam and Ethiopia. The Committee also undertook oversight visits to some coffee growing districts that included Kalungu, Kasese, Bushenyi, Kayunga, Kamuli, Bududa, Sironko, Arua, Zombo and Mubende. The Committee also carried out a study visit to Dodoma, Tanzania to share their experiences on the coffee value chain.

4.1 Meetings and written submissions

The Committee held meetings and received written submissions from the following stakeholders:

i) Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)
ii) Uganda Coffee Development Authority (UCDA)
iii) National Agriculture Research Organisation (NARO)
iv) National Union of Coffee Agribusiness and Farm Enterprise (NUCAFE)
v) Uganda Quality Coffee Trader's and Processor's Association (UQCTPA)
vi) Uganda Coffee Federation (UCF)
vii) Kyagalanyi Coffee Limited
viii) Ankole Coffee Producers Cooperative Union Ltd (ACPCU)
ix) Zigoti Coffee Works Ltd
x) Buganda Cultural Development Foundation (BUCADEF)
xi) Tropical Institute of Development Innovations (TRIDI)

xii) Mr. Mwambutsya Ndebesa, Lecturer of History and Development Studies, Makerere University
xiii) Dr. Stephen Mung'oma, an interested citizen
xiv) Uganda National Farmers Federation
xv) Received written submission from the Katikkiro of Buganda Kingdom.
xvi) Received written submission from Hon. Kasumba Mathias, MP and Chairperson Agriculture Committee on EALA.

5.0 THE BILL'S COMPLIANCE WITH SDGS

The Bill directly tackles **SDG 1: No Poverty** and **SDG 2: Zero Hunger**. The Bill

Source: AAIF3-20-Report on the National Coffee Bill 2018

Regarding the new coffee law, the NCFA chairman's position contrasted with the NUCAFE executive director, reaffirming how power is extended to previously ungoverned subjects sometimes to serve the specific interests of those above. He argued that the coffee laws that existed before the enactment of the new coffee ACT never made any reference to coffee farmers and neither safeguarded their interests. They mainly benefited the top actors within the coffee sector. He argued that although smallholder coffee farmers from his association contributed views mainly on youth and women during the consultations for the coffee bill of 2018, smallholder coffee farmers were generally not widely consulted, and they did not contribute views since many were not aware of on-going consultations. Many of the smallholder coffee farmers still do not subscribe to any farmers' association and are scattered in faraway locations. The NCFA representative was neither aware of the enactment of the coffee law in September 2021. This is something that I also observed among the smallholder coffee farmers I visited. This indicates how slow sometimes information can trickle down to the local especially regarding legislation. The new coffee law was controversial during consultations due to proposals for harsh penalties for faulting coffee farmers. It is also possible that since the law was gazetted in September 2021 as an ACT of parliament, the COVID 19 movement restrictions in some regions of Uganda then, may have limited information flow and sharing among coffee farmers' associations. He argued that the big coffee farmers were consulted and therefore understood the new coffee law although they also identified existing gaps during the consultations. He viewed the new coffee law as not an effective tool at the beginning but with further changes, it can be effective. The smallholder coffee farmers in his association had not yet received a copy of this law and it's still documented in English language. For the law to be understood, it should be translated into local languages that coffee farmers can understand.

According to the chairman of the NCFA, because some smallholder coffee farmers associations never participated in the consultations and debate on the coffee bill of 2018, there is still lack of clarity on the coffee law. Some smallholder coffee farmers were still misinformed about the coffee law, some believed that they would have to pay a tax for their coffee gardens. Some don't see the significance of such a law whether enacted or not in place. However, this lack of clarity and information at the farmers' level indicates how government and its agencies hardly reach out to the grassroots and that brings into question how effective legislation can be. He echoed the smallholder coffee farmers' view of the new coffee law as meant to exploit coffee farmers more.

The AO urged that a new coffee law can be helpful in baring intent by coffee farmers to harvest unripe coffee beans and guide their farm practices to safeguard the quality of the coffee. The AO was also aware of the intricacies of policy formulation and implementation processes when she argued that most laws come out as bills then passed into laws, documentation is made, put out and never comes down to the local farmer level. This reality is manifested in the misinformation among the smallholder coffee farmers on the coffee law as many had conflicting views on the penalties for culprits in this new law. There were no consultations among smallholder coffee farmers about the new coffee law and no information has been disseminated to date. Thorough sensitization is needed on the new coffee law plus legal interpretation at village or town council level. Implementation of such a law will be hard if they do not sensitize farmers. Active smallholder coffee farmers should be selected to provide extension activities to other smallholder coffee farmers.

6.3 Partnership based trainings with Ministry of Education and Sports

NUCAFE has partnered with the Ministry of Education and Sports (MoE&S) in Uganda to provide Competence Based Education and Training (CBET) programs to smallholder coffee farmers. The aim of such trainings is to provide skills and training to smallholder coffee farmers on good agricultural practices needed to produce a good quality coffee. This is seen as another way value can be added to coffee through training of smallholder coffee farmers, youth and women engaged in the coffee growing. Figure18, below shows a certificate offered to smallholder coffee farmers that have undertaken and completed a training in coffee farm management. This is seen as a way of improving and standardizing coffee farming in Uganda. At the completion of these training programmes, coffee farmers are awarded a certification that is endorsed within the Uganda vocational qualification framework and approved under the section 21 of the Business, Technical, Vocational Education and Training Act 2008. Such trainings are aimed at improving coffee farming and post-harvest handling in Uganda.

Figure 18. A certificate offered to a coffee farmer who has completed training under the Ministry of Education and sports.

6.4 Collaboration between small coffee farmers' associations.

The farmer-ownership model has also encouraged collaboration between the different coffee farmers' associations from the different regions. In the Figure 17 below, a visiting group of smallholder coffee farmers association from another district visited the NCFA to learn and share experiences. This visit included learning about Robusta coffee variants that are disease and drought resistant, new coffee seedlings for planting and a new method of planting coffee that provided a higher yield. The smallholder coffee farmers also visited a coffee garden belonging to a member of the NCFA in which the new Brazilian coffee spacing method is exhibited. The coffee farmers' associations also promised to collaborate as well as work harder to earn more from coffee gardens. The different small coffee farmers' associations have varying access to resources. Some coffee farmers' associations or cooperatives[32] have fully taped into the opportunities within the coffee value chain by investing in all the coffee on-farm and off farm activities. The collaboration between small coffee farmers' associations is meant to provide a platform on which experience and expertise is shared. The engagement between small coffee farmers' associations is promoted under the farmer ownership model and seeks to improve coffee quality and incomes.

Figure 17. An exchange meeting between NCFA and a visiting Kiboga Coffee farmers Association

6.5 Collaborations between coffee farmers' associations, academia and research

The farmer ownership model has nurtured an environment in which coffee farmers' associations can partner with academia and research in collaboration aimed at adding value to coffee. Academia and research have helped to inform the coffee sector since research is one of the three major pillars of the Uganda Coffee Industry. Research is conducted by

[32] Kibinge Coffee Farmers' Cooperative Society. n.d. Accessed on February 1, 2022. www.kibingecoffee.com

the Coffee Research Centre (COREC), under the National Agricultural Research Organization (NARO). Research has helped to generate scientific based evidence as well as guide given on-farm practices by developing, generating and disseminating appropriate technologies, methods and knowledge for enhancing production of Robusta and Arabica coffee in Uganda. COREC has provided high stable yields, disease and pest resistant Robusta and Arabica coffee seedlings variants to coffee farmers' associations in order to improve coffee yields.

The Consortium for enhancing University Responsiveness to Agribusiness Development Limited (CURAD)[33] has supported smallholder coffee farmers through coffee farmers' association. Collaboration and partnerships with academia and research has enabled coffee farmers' associations under NUCAFE to accumulate science-based evidence on coffee disease, drought responsive coffee, coffee bean size and high yield variants. The smallholder coffee farmers under NUCAFE have challenged government instituted agricultural programmes under the ministry of Agriculture, citing the distribution of coffee seedlings under the National Agriculture Advisory Services (NAADS) and Operation Wealth Creation (OWC) programmes. They have questioned the lack of scientifically proven evidence on the responsiveness of the distributed coffee seedlings to coffee wilt disease and drought; the coffee bean size, its yield capacity and the long duration of coffee trees of five years to the first harvest. In so doing coffee farmers attempt to own the on-farm coffee production processes within the coffee sector through collaboration with academia and research.

The coffee nursery bed at Luguzi is one such smallholder coffee farmer owned agribusiness that has received support from CURAD and partnered with COREC. Disease and pest resistant, drought resistant, high, fast yield and desired bean size Robusta coffee variants provided by COREC are prepared, planted and exhibited for demonstration at this coffee nursery bed. Coffee seedlings at the nursery bed are also prepared for sale and distribution to new coffee farmers. It also provides training to university students and other coffee farmer groups on coffee garden planning and management. Coffee farmers' associations from other regions participate in activities organized and learn about the different variants of Robusta coffee that are provided by the COREC for exhibition and planting.

[33] CURAD. Accessed on February 1, 2023. About CURAD – CURAD Incubator

7 Chapter 7

7.1 Engagements and practices of the Government Agricultural Ministry and other Agencies

The engagements and practices of the government with the various agencies provide a framework through which the coffee export production strategy can be realized. The analysis of the engagements among these agencies and the various programs implemented to increase export coffee production is important in the theoretical understanding and grounding within development and dependency. Central to the government coffee roadmap are the National Planning Authority, the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) and the Uganda Coffee Development Authority (UCDA) respectively. These have the mandate to coordinate and spearhead interventions and implementation of programs aimed at increasing export coffee production and value-addition.

MAAIF engages small coffee farmers associations under the guidance of the Agricultural Extension Policy and Strategy. Under the National Coffee Authority, the UCDA is mandated by the UCDA Statute 1991 (amended in 1994) to oversee the development, regulation and promotion of the coffee industry in Uganda. Under the vision of "A sustainable coffee industry with high stakeholder value for social economic transformation". Its mission is "To facilitate increase in quality coffee production, productivity, and consumption"[34]. This vision in part reaffirms the government commitment to the development of the coffee sector from which it accrues considerable foreign income revenues.

The government engagements follow a development discourse in which practices form procedures, guided through instruments and mechanisms aimed at shaping the behaviour of subjects in order to attain specific objectives. While increased coffee exports have been reported and reflected through increased foreign revenue accruals, the export coffee production strategy rationalizes exercising power by identifying a problem to be addressed through a given solution or specific forms of intervention (Lemke 2001, 191). The recently enacted coffee law of 2021 attests to this. The national development plan is rationalized as pathway to solving smallholder coffee farmers' household income problems through value-addition adoption. The government engagements with smallholder coffee farmers and

[34] UCDA. n.d. Accessed on March 1, 2023. Strategic Goals of the Corporate Plan | Uganda Coffee Development Authority

coffee farmers associations have taken form of farmer outreach programs. The focus is to drive value-addition adoption through GAPs trainings, provision of farm inputs particularly fertilizers (both inorganic and organic), pesticides, herbicides, new coffee seedlings, rehabilitation of old coffee trees and adoption of coffee irrigation techniques.

In contrast to other agricultural commodities produced in the country, coffee production has been elaborately prioritised and is guided by an institutional framework right from the MAAIF all the way down to the local level. The UCDA has five regional offices and 55 field extension workers providing coffee-specific extension services. In the area of research, the National Coffee Research Institute (NaCORI) under NARO is responsible for biological research, while the Economic Policy Research Centre (EPRC) in cooperation with UCDA conducts socio-economic and policy research. These agencies maintain working relations with the coffee farmers associations and other actors in the coffee value chain. Their continuous engagement and practices have informed the policy formulation process leading to new policies such as the new coffee law. While the new coffee law was regarded as necessary by all coffee sector stake holders involved in its formulation, the introduction of such new laws is one way in which government through strategy seeks to extend control over the previously ungoverned practices at coffee farm level.

7.2 The Uganda Coffee Platform (UCP)

This framework was initiated in 2006 and comprised of the public, private sector, development partners, UCDA, and NaCORI, with a sole aim of promoting coffee production for export between 2006 and 2015. It identified research; extension, inputs and credit; Farmers organizations as areas that needed strengthening. Through its nationwide engagements at regional and district level, this framework has engaged with the agricultural ministry in the development of the agricultural extension policy and strategy. The UCP has successfully organized training for 180 district agricultural extension workers/agronomist, 180 community-based facilitators and 60 youth model farmers. These have been at the forefront of impacting agricultural change and good agricultural practice mainly value-addition practices among smallholder coffee farmers at the regions.[35]

[35] Uganda Country coffee profile n.d. Accessed on February 1, 2023. Pp: 34 Uganda Country Coffee Profile_1.pdf (ugandacoffee.go.ug)

Smallholder coffee farmers organized under associations have sometimes received trainings on GAPs.

Interview response from peer farmer:

'That's why you observe that we receive different trainings, to learn. In fact, the UCDA officers come to the village, and they train us how to maintain a quality coffee, from the time of planting, how to dig holes for planting, how to preserve water and apply fertilizers, to take care of it, harvest it properly and how to store it hygienically'

8 Chapter 8

8.1 Discussion of interview responses

8.1.1 Interview with the NUCAFE Executive director.

Interviewing the ED NUCAFE was yet another opportunity to understand further the value-addition strategies and challenges encountered by smallholder coffee farmers in Uganda. It was a lengthy interview in which the ED NUCAFE shared his conviction on why coffee farmers needed to take charge of their destiny and that the farmer ownership model would progressively lead them to this desired goal. He also acknowledged that challenges facing smallholder coffee farmers are many but emphasised that a holistic approach is needed where a farmer is not working alone but through collective approach to find meaningful solutions to challenges encountered. Whatever an individual farmer can solve on their own at farm level is commendable but most of the farmer's challenges must be addressed through an institutional framework and this why an organisation like NUCAFE was founded.

According to the ED NUCAFE' coffee farmers developed consensus that they did not own the coffee and resolved that it was high time they started owning the coffee they produce and that's when the farmers' ownership model was born. With the farmer ownership model, they needed to make progress by unpacking the model in its entire value chain from the farm to the end of the value chain**.** Smallholder coffee farmers have cash flow needs at the farm level and needed to address such issues on their own because nobody was going to solve these issues. Part of ownership means taking responsibility as farmers for own transformation.

'We must be masters of our own destiny and therefore ownership means adding value to the coffee that we grow'. As farmers 'we should not sit aside and watch somebody else buying our coffee and adding the value and they come back happy, while for us the farmers stay crying and our children are becoming much poorer than us the parents. Nobody is interested in seeing farmers adding value, especially all these intermediaries that are buying raw material from us. Opening coffee farmers' mind-sets and, attitudes thus we started mobilising the farmers. We took leadership strongly and then we started creating partnerships with the likeminded buyers in Europe who are interested in seeing the good that is also coming from the coffee farmers who produce good coffee needed by their clients. And we started with one coffee buyer in Italy who picked a lot of interest in NUCAFE. We started putting up this factory you see here for *farmers to make progress in the value chain to capture more value from the value chain. So, all the way from the farm to processing. We now roast and we are making progress in phases, expanding and we have other seven factories out of here, in the countryside, in Kasese, In Maska, In Rakai, in Bushenyi, in all those places where we have organised farmers.'*

8.1.2 Interview with the Chairman NCFA

According to the chairman of the NCFA, smallholder coffee farmers need training in the application and use of farm implements. He noted that the fertilizers for instance are purchased from privately owned shops and neither the seller nor the buyer is knowledgeable about the application and use of the fertilizers. He suggested a government support through availing agricultural inputs at every sub-county, training youths and coffee farmers in various agronomy skills to be knowledgeable on farm implements, soil checks and sampling. He urged that the government should just organize people and support them in the capacity they want to grow coffee. It should train smallholder coffee farmers on how to dig up holes for coffee planting; how to mix fertilizers for coffee gardens, when that is done, it should distribute coffee seedlings especially good quality seedlings. There is need for farmer owned coffee hulling stations to process their coffee at subsidized rate in which farmers themselves are the employees.

He suggested the need for a bank focused on supporting and providing access to credit for smallholder coffee farmers with secondment from the coffee farmers' associations.

Support should be offered to the smallholder coffee farmers in the garden so that they progressively improve their coffee garden. He suggested that government should also secure the market for farmers' coffee produce. It should be that all farmers equally access the market and get the same price offer because we are all coffee farmers. He also suggested that the price of coffee needs to be determined by the ministry responsible. He also raised an issue of timely payment of the coffee farmers especially if they are a member of the farmers' association because if payment delays, smallholder coffee farmers loose interest. He suggested a need for a fund from which the coffee farmers can receive a down payment of at least 80% and the remaining 20% as balance when the actual price and bonus when customer is satisfied with the quality of their coffee.

There is need for private organization and/or non-government organizations involvement in the coffee sector if the government has failed or neglects the coffee sector, such that they fill up the gap. He argued that it is currently the private and non-governmental organizations supporting coffee farmers and acting more like a government. Organizations like NUCAFE, Kyagalanyi, and different NGOs are currently supporting coffee farmers, yet this should be a responsibility of the government, through its representatives or agencies such as the UCDA. He viewed the government as neglecting or making no effort when it comes to upraising the incomes of the farmers at the bottom but prioritising other sectors such as security. The responses of the NCFA chairman indeed reflect a dilemma smallholder coffee farmers encounter in absence of substantial governmental support. Something the NUCAFE executive director explained as a situation resulting from a poor government that has minimal resources to cater and solve various problems faced by its different sectors. While the NCFA chairman expected more commitment from the government to support coffee farmers, on the contrary the NUCAFE executive director was sceptical of the government's ability and capacity to solve coffee farmers' challenges but instead arguing for holistic approach through an institutional framework in which coffee farmers themselves determine their destiny.

8.1.3 Interview with a Peer Farmer

Zade is a peer farmer and represents the smallholder coffee farmers in her village. A peer farmer is a smallholder coffee farmer who is selected at the NCFA to coordinate and mobilize other farmers at the village level. She owns about two acres of coffee garden which she inherited. Her coffee garden is regarded big in comparison to other small coffee gardens owned by other small holder coffee farmers at the village level. Zade has allocated another half an acre of land for a new coffee garden in which the Brazilian style (three by one) spacing technique has been applied. She aimed at increasing her coffee harvest from this extra plot of land and coffee garden. This spacing technique is relatively new and being tried out by some of the small coffee farmers. Zade agrees that the new spacing technique has some challenges, especially because it eases the fast spreading of the Black Coffee Twig Borer pest in coffee gardens because of the narrow spacing between the coffee trees. The technique also means that more coffee plants in a garden will be competing for the limited soil nutrients. The coffee trees planted in this kind of spacing should be supplemented with fertilizers in order to receive sufficient nutrients and attain full potential. The absence of fertilizer application means a lesser yield from the coffee trees. Although Zade is a member of NCFA where this Brazilian spacing technique has been encouraged, she agrees that the spacing technique is not conducive as its eases the spread of the pest and its resource intensive. Her individual assessment supports what has been observed about the process of agricultural intensification as a costly and risk prone practice. This is so because anticipated or desired outcomes turn out to contrast with actual outcome. Agricultural intensification can be detrimental to the farmland in cases of maximum production where soil fertility is not replenished in form of fertilizer application (Adams and Mortimore 1997)

Zade's role includes buying and bulking coffee from other smallholder coffee farmers in her village and it is sold through the association. She agrees that not all smallholder coffee farmers are members of the association or sell their coffee to the NCFA. Unlike her association, there are people who come to buy coffee from smallholder coffee farmers who are not members of the association. She sees such traders as manipulating the smallholder coffee farmers. For this reason, she joined the association. The NCFA encourages adoption of value-addition among its members so that the quality and quantity of the coffee produce can be improved and increased. Zade argued that smallholder coffee farmers who are not members in any association are not obliged or bounded by any quality requirements and thus were most likely to indulge in malpractices such as harvesting green unripe coffee beans, stealing coffee from other farmers' gardens. She claims that coffee traders who come door to door buy this green unripe coffee from such farmers. The NCFA discourages members from picking unripe coffee beans. Zade and farmers in her cluster endeavour to pick only ripe coffee of good quality, drying it on tarpaulins before bulking it for sale. Selling coffee through the NCFA offers smallholder coffee farmers a competitive market price. The NCFA however lacks financial capacity to readily purchase all available coffee in the village. Some smallholder coffee farmers therefore sell their coffee to traders/middlemen because who readily make payment at the doorstep and sometimes offer a higher market price.

Some previous engagements by UCDA, coffee exporters are not happening. Some years ago, smallholder coffee farmers would receive message updates on the market prices of the coffee on their mobile phones. Coffee farmers knew upfront the price to sell their coffee and as an association everyone knew how much coffee has been sold while all this worked well, currently the price updates and all this is not happening.

Smallholder coffee farmers at the village have previously received different trainings from UCDA officers on GAPs including extension support. Trainings on how to maintain a quality coffee, from the time of planting, how to space the coffee seedlings at the time of planting, how to preserve water and apply fertilizers, to take care of it, harvest it properly and how to store it hygienically. Zade should be knowledgeable and informed on updates of government programmes and any coffee farmers' activities at the village level. She shares her self-disapproval when she concedes that, she often has no answers when villagers inquire about government support'. This is because support to smallholder coffee farmers although sometimes promised, it's never a guarantee. Smallholder coffee farmers face a multitude of challenges yet when extension support is provided, it's never sufficient to cover them all. The NCFA tries to link up with distant smallholder coffee farmers through peer farmers, however Zade admits that it's always a challenge to mobilize farmers these meetings.

'We have been trying to mobilize them, but they put little effort into the meetings.' Meetings organized by the NCFA representative are sometimes reluctantly attended due to little commitment from residents.

The absence of steady and reliable extension support perhaps explains the reluctance of smallholder coffee farmers to attending meetings when called. Zade thinks that some of these smallholder coffee farmers were used to selling their coffee quickly to coffee traders/middlemen thus were less committed to meetings with NCFA representative.

Zade persuades the smallholder coffee farmers in her village to undertake the various value-addition on-farm practices and off-farm practices. While some get involved in the value-addition practices, some smallholder coffee farmers have expressed inconveniences during value-addition attempts, thus opted to sell their coffee to traders in order to receive quick payment. This revelation underscores how some smallholder coffee farmers view value-addition practices as strenuous and labour demanding hence the modest adoption.

It is also possible that decisions on allocation of family labour come into play since most smallholder coffee farmers are engaged in intercropping as a coping strategy for household livelihood. Family labour is often subject to redistribution basing on growth cycles of the different crops (Adams and Mortimore 1997, 155). Decision making on which crops to cater for and what farm inputs to allocate in each crop season eventually play out since intercropped crops may have different growth cycles. In such cases smallholder coffee farmers must negotiate with available family labour in order to perform on-farm and off-farm value addition practices, which intensifies agricultural production. Although Zade currently stays with her sons and a daughter who would provide family labour in the coffee garden, she contends that her and the children at home alone cannot be able to do all the work of timely coffee harvesting in her coffee garden.

'We can together with these boys harvest the coffee when it's a lot but still I must get at least three additional workers to help. You cannot do the harvesting alone and finish it. You see with coffee. For instance, you have a banana garden, it requires mulching. Then you have beans and maize garden in the next garden. So, you send the children to weed the beans and maize garden. The coffee is also ready for harvest and all these crops mature at the same period. You may want to harvest the beans and then the coffee. Then at some point the beans garden becomes bushy. It's all constraining and challenging and you don't have an immediate solution. You notice that some of this work requires finances. At least one should be able to pay for the coffee harvest work, and then the children do the work in the beans and maize garden. When they finish, they get something to eat and after they can go to the coffee garden and harvest the coffee, because when the coffee cherries ripen, they begin falling off the coffee tree, and this should be avoided. There is need to hire people to help you harvest the coffee cherries before they drop to the ground. You would have to sell a portion of the coffee. They can harvest about ten containers of coffee. For instance, if a person harvests ten containers of coffee, a farmer may a portion three tins for sale and pay the workers. When the worker harvests ten tins, you give three tins.'

Engaging with Zade also highlights the challenge small coffee farmers' associations face especially the lack of financial power to secure coffee harvests from smallholder coffee farmers whose immediate need is money to solve their domestic problems. Coffee traders' engagements and practices with smallholder coffee farmers involve buying coffee directly and trading it with coffee exporters. Small coffee farmers' associations lack readily available capital to secure all coffee from the smallholder coffee farmers in the village. The impetus of financial capital is much more pronounced at the village level that small coffee farmers associations are positioned against coffee traders who are less keen on value-addition initiatives and coffee grading adopted by small coffee farmers.

'The coffee traders are always available, I tell you they are always around. Particularly those coffee traders who buy red coffee cherries. While you harvest the coffee cherries in the garden, they approach you and inquire/ask whether you can sell the coffee to them. If you are not patient enough, while you harvest the red cherries, they will weigh the coffee, pay and take it.'

For smallholder coffee farmers like Zade, the feeling of commitment to the NCFA association overweighs the temptation for quick sales to coffee traders who are readily available to buy any coffee including red cherries, unripe green cherries and whole flowering coffee gardens from small coffee farmers at the village level.

'Some of us feel committed to the NCFA, we decide to be patient and not sell our red cherry coffee to such traders. We decide to keep our coffee for sale only to the association. If a coffee farmer is not committed to the association, they will not keep the coffee for the association. But will sell it instantly.'

Zade further explains that there is a binding requirement to sell to the association when a smallholder coffee farmer becomes a member. A member's coffee garden is measured in acreage and coffee harvest from the garden is determined or estimated. This is documented and in fact she has overseen mobilizing smallholder coffee farmers in her village into the NCFA and doing this sort of documentation. She feels concern that after all this mobilizing and documentation of smallholder coffee farmers, when the association cannot readily buy their coffee due to lack of finances, the smallholder coffee farmers feel abandoned.

'But you measure/determine the amount of coffee they can harvest and then you abandon them, you have not given them money to solve their own personal problems. If such a coffee farmer decides to give the association only two tins/ sacks of coffee, coffee that has been well dried /Omutindo, you can't interfere with their decision. Generally, this idea/business of selling to the association is just beginning. I must carefully talk to the coffee farmers so that they can contribute what we need while us as the association look for finances. Otherwise, if the association has no finances, it will not be able to get/collect coffee from the farmers because people/coffee farmers have problems. Currently people are worried that students will be going back to school. Coffee farmers may have stored at least one or two bags of coffee.'

Smallholder coffee farmers are also keen on the coffee price movements, some opting to hoard their coffee during low prices and selling it during price hikes. Unlike the small coffee farmers associations that may not be readily responsive to these price hikes, coffee traders on the contrary are responsive and use such hikes to make bulk coffee purchases. Coffee traders somehow assume a patron-client relationship offering to buy the smallholder coffee farmers' produce at any time of the season. This sometimes includes buying coffee that is still in the gardens. The coffee traders remain indispensable actors within the coffee value chain since they readily buy the coffee and avail the cash that is needed by the smallholder coffee farmers. Some smallholder coffee farmers therefore are compelled by the varying seasonal prices and often must negotiate between selling to coffee traders and the small coffee farmers' associations.

'A farmer just called me today in the morning, notifying me that the price of coffee per Kg shot up, and was asking if we shall pay 3500 shillings per kg. I told him we are paying 3400 per kg of coffee. He claimed that a coffee trader was paying him 3500shillings per kg. So, I told him I will call the chairman of the NCFA and see whether he can offer that price you want. The farmer will often call you at the time when a coffee trader has visited them to buy their coffee. They then ask can you offer me 3600shilling/Kg; I have five bags of coffee. If the association has no money, the farmer goes ahead and sells the coffee. In this case you have nothing to do. The price is up, the farmer will sell the coffee. There is nothing to do for such a farmer.'

There have also been moments in the past when the NCFA has been able to buy the coffee from the smallholder coffee farmers at their desired price. Zade in this case would personally visit the coffee farmer and check the condition and quality of the coffee. If the coffee quality was satisfactory, she would offer to pay the price demanded by the smallholder coffee farmer. Her engagement with the smallholder coffee farmers can sometimes be personal but more realistic since often her goal is to buy the coffee if it is of good quality. Otherwise, coffee traders are always ready and, on the search, to buy any available coffee from the smallholder coffee farmers.

'When the farmer accepts their coffee to be bought at 3500shillings/Kg at that moment, I personally go and visit the farmer and check the coffee, the condition and quality of the coffee and how dry it is. If the farmers didn't take good care of the coffee during drying, I tell them that they can't receive an offer of 3500shillings /Kg for such coffee. I talk to the farmer in a more realistic and personal way. However, if you find that the coffee is in good condition, you go ahead and pay for the coffee, because if you say no, that moment the coffee trader will buy the coffee. If you check the coffee and notice that the farmer didn't properly dry it, you advise the farmer to properly dry the coffee again, because the coffee never dried properly. then a better dried coffee can be achieved. If that's not possible, we ask the farmer whether he can sell 3 or 4 kgs of the coffee. Some say they cannot sell us, and they begin arguing over this. Then sometimes I wonder what I should do. You notice that they are making it hard for you. But when you notice that a little benefit can be gained, the need to strengthen the association, and the coffee was well dried, you accept and offer the price the farmer wants and get the coffee.'

The lack of readily available capital by the small coffee farmers' association was compounded by delay in the payment for coffee collected from members of the NCFA. Sometimes delays lasting three to four months. Every time smallholder coffee farmers contributed coffee to the NCFA, they had to wait for some time to receive payment. A few times when the chairman of the NCFA got some money, then the association paid instantly for the coffee they bought from the smallholder coffee farmers. These moments however were few, lasted a few days as can be recalled by Zade.

8.1.4 Interview with the Agricultural Officer (AO)

An agricultural officer is a government representative at the town council who oversees general agricultural issues at this level. Although her role is prominent and requires constant engagement with farmers, the challenges at the grassroots are enormous that a single official can only do as much as they can, given the resource constraint agricultural department, she can hardly reach out to every corner of the sub county to engage with farmers.

She shared some of the challenges she believed are encountered by smallholder coffee farmers in Namayumba Sub County. She cited urbanization as causing land fragmentation in the Namayumba thus posing land shortages for smallholder coffee farmers and yet for one to benefit from coffee growing one needs at least an acre and more of land. She also cited that smallholder coffee farmers although have been practicing coffee farming for decades, there is a lot about agronomy they do not know and so there is that information and training gap since a lot of input is required in agronomy. Much as government tries to engage farmers through sensitization meetings, a few farmers participate in these meetings thus they remain uninformed, untrained in agronomy thus stuck in traditional methods of farming. This stance suggests the feeling of neglect among smallholder coffee farmers by those placed in positions of authority especially regarding challenges encountered at the on-farm level. It is also likely that engagements of government are mainly a top to bottom approach and hardly involve the participation of the people at the local level.

The AO cited the constant seasonal threat of pests and diseases to coffee gardens, the high cost of farm implements such as fertilizers and pesticides. Most smallholder coffee farmers cannot afford pesticides and thus resort to traditional methods of pest control which often require implementation by all smallholder coffee farmers in the same village in order to be effective as pests can frequently cross over from one garden to another.

She urged that mind-set change to the newly introduced improved techniques is needed for the smallholder coffee farmers. She mentioned that farmers are still stuck in traditional ways of agricultural production and are reluctant to adopt new improved technologies. Small holder coffee farmers are thus reluctant to change from old to new methods of coffee farming to boost the quality of their harvest. This probably explains partly why some smallholder coffee farmers I visited were reluctant to adopt value-addition strategies and joining coffee farmers associations.

8.2 Discussion of observations, challenges to value-addition encountered by smallholder coffee farmers in Namayumba sub county.

Coffee gardens are scattered within fragmented patches of land, and some are hardly accessible by vehicles due to their remote and distant locations. These small coffee gardens are sometimes only accessible by footpaths. It’s unlikely that these distantly located smallholder coffee farmers have adequate information on how to add value to coffee and how this is done, after all not all smallholder coffee farmers are members of the NCFA in which value-addition is actively encouraged. The day-to-day on-farm and off-farm practices among these distantly located smallholder coffee farmers are based on mainly simple and traditional techniques of coffee production which don’t comply with contemporary GAPs standard.

Some smallholder coffee farmers particularly members of a coffee farmers association adopt value-addition and proceed to processing and grading of the coffee. However, this is done if the costs of transportation and processing can be recouped to gain some profit when the kilogram per coffee is sold at a high value-added price. Generally, value-addition information is understood and mainly practiced by smallholder coffee farmers who are members of the NCFA. Outside the farmers’ association structure, smallholder coffee farmers prefer to sell their coffee to middlemen before processing and grading it. This is common among smallholder coffee farmers harvesting a few Kilograms of coffee often less than a bag of (Bags less than 100Kg). This is done to avoid the intricacies and costs implication of this stage in the value chain. The smaller the coffee garden, the less coffee to harvest and the likelihood not to adopt value-addition practices due to the embedded costs.

Transporting the coffee to a processing and grading station is often done using bicycles or motorbikes (*Boda Boda*) because these can easily access the footpath to the farmers’ gardens and are cheaper compared to trucks or pickups. Hiring a motor bike or pickup to deliver the coffee to the processing station means incurring transportation costs. It is likely that there is one processing store in a single location that serves several distant smallholder coffee farmers. That means long waiting hours at the processing and grading store due to other farmers' coffee processing orders; sometimes a power blackout; technical failures of the processing machine led to delays.

Some smallholder coffee farmers I visited, mentioned delays in payment for the coffee discouraged them from selling their coffee to the small coffee farmers' association. The small coffee farmers association's biggest challenge was availability of capital to pay for the coffee at the time of collection from the farmer. Some smallholder coffee farmers also claimed being conned of their coffee harvest. In one given incident, a former worker at the coffee farmers association collected several kilograms of coffee and never paid the farmers causing mistrust to the coffee farmers' association. Such scrumptious individuals and their actions at times have affected the collective functioning and trust within the coffee farmers' associations. Smallholder coffee farmers still encounter these real time challenges daily alongside their domestic challenges.

NUCAFE believes that the farmer ownership model has and can benefit coffee farmers in various ways including being an inclusive model regardless of the size or scale of the coffee farmer. The model sought to encourage a sense of coffee ownership among the smallholder coffee farmers so that they adopted GAPs and proper drying hygienic storage of the coffee to safeguard its quality. The smallholder coffee farmers I visited owned small coffee gardens (less than an acre of land to one or more acres of land). While some were members of the coffee farmers' association, others with smaller coffee gardens were less engaged with the activities of the farmers' association and did not subscribe to its membership. Smallholder coffee farmers who maintained membership in the coffee farmers' association only did so if they received better prices for the coffee and any other sort of assistance. This assistance was sometimes in form of labour to help in their coffee gardens, affordable fertilizers or pesticides for their coffee gardens, or expertise on how to improve the coffee production from their gardens. This kind of assistance was provided by the UCDA, the district agricultural office or some development NGOs reaching out to the community by partnering with the coffee farmers' association. Not all members of the coffee farmers' association sold their harvested coffee through the association. Some of these farmers only offered a portion of their coffee produce to be sold within the coffee farmers' association structure directly to exporters. Others sold a portion of their harvest to coffee traders/ processors or to coffee traders who bought it at a good price per kilo at their doorstep. In most cases this depends on how urgent the coffee farmer needed cash to solve their domestic needs. It appeared to me that the more acreage of coffee land a farmer owned the more imperative it was to join the coffee farmers' association. Membership gave such coffee farmers access to some advantages of collective (social) entrepreneurship within the coffee value chain. The coffee nursery bed proprietor sells coffee seedlings, provides consultancy and labours services to any new coffee farmers. The fertilizer maker provides organic fertilizers for sale to other coffee farmers.

It was observable to me that the coffee farmers' association provided a platform and network in which smallholder coffee farmers linked up, connected and shared experiences in a resource network. At the same time, the access to opportunities within the coffee farmers' association is uneven and often depended on which resources a particular smallholder coffee farmer accessed at a given time. It was evident that some smallholder coffee farmers were entirely dependent on coffee farming and lacked other sources of income generation. Smallholder coffee farmers who lacked alternative sources of income expressed challenges in the adoption of value-addition since a level of investment is required in terms of farm inputs and labour.

Some small coffee farmers households in which men as family heads demanded the cash from coffee sales were associated with multiple channels of coffee sales. The unequal distribution of incomes from the coffee sales sometimes led to mothers and their children harvesting and selling the coffee from the garden without the knowledge of the father. Likewise, children as well harvested and sold the coffee without the knowledge of their parents. Such dynamics among smallholder coffee farming households continue and create a deficit in incomes raised from coffee growing.

One smallholder coffee farmer shared her challenges and how she was advised by her neighbour to give up on coffee farming and leave it to those with more financial resources. She had encountered multiple challenges, from low coffee prices, a coffee pests infested garden by the Black Coffee Twig Borer, low harvest due to old age trees yet she constantly required labour to work in her coffee garden. She was contemplating to give up coffee farming for other profitable less strenuous crops in which she would earn more without stress. Although she still harvested some coffee and was an active member of the coffee farmers' association. She planned to grow some Turmeric which she could sell and get some money besides coffee. She had been in contact with a customer who was ready to buy Tumeric it in large amounts. Other smallholder coffee farmers often intercrop their coffee gardens with Banana, Manioc and sweet potatoes. These crops are locally consumed and thus supplement household food needs but also often can be quickly sold in community markets.

However, smallholder coffee farmers outside this collective structure are in fact disempowered and can hardly determine the price of their coffee. Such farmers have either been part of the association before but later absconded due to personal or association issues. Other smallholder coffee farmers don't have enough coffee acreage to sustainably contribute to the NCFA. Coffee sold by farmers who are members of the coffee farmers' associations is often scrutinized and members are required to undertake proper post-harvest practices. It is likely that smallholder coffee farmers who do not subscribe to any farmers' association are susceptible to poor post-harvest practices. These often include picking unripe green coffee beans and mixing them with the ripe ones. Sometimes such smallholder coffee farmers dried coffee beans on bare ground or stored beans in same spaces with goats and chicken as such contaminating the beans. These practices showed the lack of ownership of the coffee that is a major concern regarding the quality and competitiveness of Uganda coffee.

The scrumptious practices and lack of discipline at the farm level however still compromise the quality of Uganda coffee leading to poor customer satisfaction and hence low pay for the coffee in general. The coffee law of 2021 is meant to safeguard the quality of Uganda coffee in turn safeguarding Uganda's coffee competitiveness in the global marketplace.

The ED NUCAFE reiterated that in the marketplace, coffee is not only sold by quantity but most importantly by quality, by processes through which the coffee has undergone. Traceability and a story behind the coffee have become important element in driving customer satisfaction at the marketplace. The better the quality of coffee the country offers, the higher the price it reaps and the higher incomes for the coffee farmers. About 95% of coffee produced in Uganda goes to the global market, in order to remain competitive, the intrinsic quality of this coffee must be protected.

As mentioned by the ED NUCAFE 'the practices at farm level are paramount in determining the quality of the coffee'. Value-addition at farm level therefore begins with the practices of the smallholder coffee farmers. The kind of coffee seedlings planted, the spacing methods applied in the coffee garden, techniques of coffee production propagated, the hygiene after harvest, during drying, storage and processing all the way through the value chain until the coffee is exported.

As discussed so far, it is much clearer that value-addition requires smallholder coffee farmers to adopt a variety of on-farm and off-farm practices which intensify agricultural production. Undertaking value -addition practices is not without risks and costs. Smallholder coffee farmers lack necessary farm inputs. Some still practice simple traditional methods of production leading to low and poor coffee yields. Off-farm practices such as drying of red coffee cherries on ground that result in microbiological contamination is still prevalent. Smallholder coffee farmers face access limitations to credit, extension services and support are limited. Smallholder coffee farmers must negotiate between value-addition practice and simple, less costly, less time-consuming techniques of coffee production.

Some of the smallholder coffee farmers I visited explained that due to their domestic income challenges, they preferred to sell their coffee quickly because of the urgent need for money to solve their domestic problems. At the point of harvest and after drying the coffee, most smallholder coffee farmers have no money and cannot wait for long payment periods for the coffee supplied to the NCFA. Some smallholder coffee farmers have no money to pay for transportation and coffee processing fees since they are located far off from the nearest coffee processing stations. The final price of the coffee after processing and grading offered by the NCFA may be higher than that at farm level, however, if profits are perceived to be low, smallholder coffee farmers opt to skip this process. They opt to skip this stage of value-addition even when it would have offered them additional money for their coffee. They instead sell their coffee quickly to coffee traders/middlemen.

Value-addition is in many ways assumed to eventually increase coffee production and improve quality so that smallholder coffee farmers can benefit from higher prices by way of increased incomes. Intricacies of value-addition however demand a level of investment in terms of farm inputs, adoption of new agronomic techniques which intensify agricultural production on the part of the smallholder coffee farmers.

There is also a common assumption that it is easy for smallholder farmers to organize into associations, yet participation in such activities is driven by different motives. Economic aspirations motivate smallholder-farming households to participate in coffee growing, but also the desire to access other available opportunities within such social organizations. The interests that drive participation therefore can vary among the different farming households.

Adoption of value-addition initiatives necessitates financial resources which are often not available or scarce for smallholder coffee farmers leading to exclusion. It is likely that a group of better off peasant farmers adopt value-addition practices and stand to benefit within small coffee farmers' associations thus excluding considerable sections of the small farming households.

Occasional slumps in coffee prices also discourage smallholder coffee farmers from committing labour time to value-addition initiatives which would allocate them additional incomes from the coffee value chain. This makes the value-addition initiative appear as a façade driven by market fantasy.

Smallholder coffee farmers and the coffee farmers' association have also complained about unscrupulous actions by coffee traders/middlemen who use tempered weighing scales to manipulate farmers during coffee weighing. The ED of NUCAFE urged that the need to bring sanity within the coffee sector and precisely to deter such actions led to the tabling of the coffee bill 2018 and enactment of the coffee law of 2021.

9 Conclusion

This research investigated the attempts by smallholder coffee farmers in Namayumba to adopt value-addition within on-farm and off-farm coffee practices, in the prospect of improving their income but remain poor. After my first field visits, I changed my initial research question from, ‘How coffee farmers in Uganda attempted to influence the National coffee bill of 2018 and impact on it?’ to ‘Why do smallholder coffee farmers in Uganda remain poor despite attempts to increase their income with value-addition programmes?’ In the field, I learnt that most smallholder coffee farmers lacked knowledge and unawareness on the new Uganda coffee law of 2021. This made answering my initial research question unattainable from the context of coffee farmers. The reality in the field was in contrast with my classroom expectations thus it dawned on me that I had to adjust and adapt the research question and plan to the everyday realities in the field. Despite failure in my initial classroom quest, once in the field, I was convinced that there was a problem worth investigation and that this required collecting ethnographic data through fieldwork.

As I have described and accounted for the facts in this thesis, ethnography provided a theoretical grounding for this case. Through the ethnographic fieldwork and empirical data analysis, findings from observation, interviews and literature review show that under the stewardship of NUCAFE, small coffee farmers associations adopt a farmer ownership model, through which they attempt to gain control over the initial stages of coffee production in order to improve their incomes within the coffee value chain.

The idea that smallholder coffee farmers add value to the coffee at farm level and sell at better price to exporters is emphasised through the farmer ownership model. By earning more income, smallholder coffee farmers can be able to meet many of their household cash flow needs. The on-farm and off-farm practices are essential to adding value and determining a good quality coffee. However, value-addition involves adoption of a variety of agricultural practices. Practices adopted include planting of new disease- and drought resistant coffee seedlings, application of fertilizers in coffee gardens, weed and pest control either through application of herbicides and pesticides or mulching, water conservation through irrigation, stumping of aging coffee gardens and intercropping with arable crops like Banana. These practices lead to agricultural intensification of production at on-farm level, a process that can be costly and risky.

Some smallholder coffee farmers adopt agricultural practices such as the Brazilian reduced spacing method (3 meters by 1 meter between coffee trees). This coffee spacing practice is intensive as it requires more resources in terms of farm inputs. It demands fertilizer and pesticide application; water conservation and irrigation techniques; weed and pest control; more labour hours per day which all have a financial implication. A few smallholder coffee farmers can afford such elaborate coffee farming systems; and many must negotiate between limited and scarce resources.

Smallholder coffee farmers adopt practices such as intercropping in coffee gardens; advantages of this practice have been widely discussed including being a coping strategy for the household subsistence survival. Intercropped coffee gardens are resource intensive since they still equally demanded more farm inputs in terms of fertilizers, pesticides water irrigation and labour hours that are often in scarcity among smallholder coffee farmers.

Post-harvest elevated coffee drying, and storage was observed among a few smallholder coffee farmers. Many still dry their coffee on tarpaulins on ground, yet elevated coffee drying, and storage ensures uniform drying of the coffee beans and prevents ground contamination. Value-addition required smallholder coffee farmers to grade and process their coffee produce in order to sell it at a value-added price to exporters and buyers. Some smallholder coffee farmers not members of the farmers' association opted to conveniently sell their coffee to traders/middlemen to quickly earn money. The coffee traders/middlemen continue to buy coffee from the smallholder coffee farmers at the farm level thus still wield purchasing power for the coffee at the village level.

The intricacies of value-addition adoption led to modest attempts by smallholder coffee farmers. Value-addition adoption comes with resource implications thus requires some level of investment at farm level. The lack of steady income flow and access to credit finance among smallholder coffee farmers impeded their capacity to fully embrace value-addition adoption.

Many smallholder coffee farmers are located deep in the villages where the information gap is very evident. The lack of appropriate information and training on GAPs often leads to misinformation and is affecting the ability to make effective decisions regarding coffee growing and value-addition. A Membership in the coffee farmers association is not obligatory therefore, some smallholder coffee farmers are not keen on joining the coffee farmers association.

The thesis also aimed to show that value-addition promotion at on-farm and off-farm level in Uganda is not an independent micro process but occurring in interaction with a particular national development impetus, whose goal is to increase coffee export production and income for rural small farming households. The analysis of the MAAIF agricultural modernization and value-addition drive attests to this assertion. This research further demonstrates that macro processes in a context of a particular national development discourse can in fact impact local agricultural practices. The enactment of the Coffee law of 2021 emphasized the need for coffee value-addition to safeguard quality at the on-farm and off-farm level and competitiveness at the global marketplace.

The coffee export production strategy through which value-addition is promoted is development and dependency. Subsequently, Uganda exports entirely raw coffee whose price remains low at the marketplace. The export of primary commodities is embedded within imbalanced structures of the world economy system in which periphery-producing countries remain dependent on the global north. The periphery countries have largely remained raw commodity producers while remaining poor and enriching the centre where sophisticated profitable end products are produced.

I have endeavoured to show that value-addition is promoted to increase income from the coffee, but Uganda's coffee is regarded uncompetitive at the marketplace. Despite the increase in coffee production over the years, prices have remained low and frequently fluctuate. Value-addition that focuses on the initial stages of coffee production is too marginal to impact a considerable price increment under prevailing imbalanced structures within the coffee commodity value chain. The coffee export production strategy should shift focus to high-end value-addition coffee production stages from which more profit can be accumulated.

As I have argued in the thesis, the dependency school of thought provides a basis for theoretical analysis of this phenomenon. It is much older and faced criticism for an ahistorical approach however, the validity of historical structural dependency can still offer a nuanced framework to address the case I have investigated here, if we additionally consider a multitude of factors occurring in the periphery commodity producing countries in combination with the structural imbalances of the coffee commodity chain.

The broader lesson to learn from this case is that value-addition should go beyond initial stages of coffee production and encompass high-end coffee processing that is more profitable. This requires a turnaround in the coffee strategy to prioritise downstream industrialization. It should seek to create a favourable investment environment for partnership-based investments in high-end coffee processing in Uganda.

Consumer habits are dynamic and evolve into new consumption trends. The value of a value-added product is determined by the consumer and the satisfaction from such products diminishes over time henceforth affecting the price of such commodities. This requires constant adaptation from commodity producers in order to benefit from competitive commodity prices. In contrast, smallholder coffee farmers who produce most of Uganda's coffee, live in conditions of scarcity in which they must negotiate farm input resources, thus may not readily adapt to the dynamic market and consumer demands.

High-end coffee processing in Uganda can make production more responsive to market and consumer needs. This can impulse domestic consumption of coffee, which is currently low and trigger rise in domestic coffee prices. High coffee prices would encourage smallholder coffee farmers to further engage in value-addition and lead to real ownership of the coffee on-farm and off-farm processes. This can create a bottom-up engagement of smallholder coffee farmers improving their position in the coffee value chain to favourably negotiate within their interests.

There is need for the government of Uganda to engage in concerted renegotiation of trade terms with international markets to seek equal terms of trade so that Uganda's high-end coffee can access the marketplace without restrictions often encountered under World Trade Organization (WTO) and other multilateral trade agreements. New markets can be explored in which equal terms of trade can be negotiated, agreed and established to give unrestricted access to Uganda's high-end coffee. The continued export of raw coffee only maintains dependence since even with on-farm and off-farm value-addition, the coffee price remains low and uncompetitive. In consideration of the above mentioned engagements, the future of smallholder coffee farmers in Uganda will depend on several local interventions, Unwavering government support through favourable agricultural credit schemes to coffee farmers associations aimed at strengthening value-addition adoption all through to high-end coffee production, subsidized farm input prices, continuous agricultural extension support and trainings on GAPs to improve coffee quality at on-farm and off-farm level and promotion of local consumption of coffee.

Finally, this thesis attempts to show that practices and engagement of smallholder coffee farmers and governments can be studied, and an ethnographic approach can provide comprehension. It also emphasises that local processes are still worth anthropological inquiry and scrutiny to better educate ourselves on embedded assumptions, especially when we observe contrasts between the assumed and the occurring. Through ethnographic fieldwork, we can, observe; how local processes in form of new practices unfold; analyse the impact of such processes on local agricultural practices; and explain engagements between various actors. We can also map the interconnectedness of the ‘local’ and the ‘global’ and how this subsequent interaction impacts local processes. This, therefore, contributes to anthropological data on value-addition practices among smallholder coffee farmers.

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