[Inner endpaper]

HEC MONTREAL

Value chain development initiatives and the inclusionary processes of small-scale producers in agricultural GPNs: The case of the argan production network in Morocco

By
Zeineb Said Graiouid

HEC Montréal
Natalia Aguilar Delgado

Master of Science in Administration
(International Business)

A thesis submitted in partial fulfillment for the degree of Master of Science (M.Sc.)

December 2022

HEC MONTRÉAL

Comité d'éthique de la recherche

ATTESTATION D'APPROBATION ÉTHIQUE COMPLÉTÉE

La présente atteste que le projet de recherche décrit ci-dessous a fait l'objet des approbations en matière d'éthique de la recherche avec des êtres humains nécessaires selon les exigences de HEC Montréal.

La période de validité du certificat d'approbation éthique émis pour ce projet est maintenant terminée. Si vous devez reprendre contact avec les participants ou reprendre une collecte de données pour ce projet, la certification éthique doit être réactivée préalablement. Vous devez alors prendre contact avec le secrétariat du CER de HEC Montréal.

Projet # : 2020-3803 **-** graiouid_thesis

Titre du projet de recherche : Multinational Enterprises, Rural Cooperatives, and impacts on Sustainable/Human Development: The Case of Morocco's Argan Trade.

Chercheur principal :
Zeineb Graiouid
HEC Montréal

Directeur/codirecteurs :
Natalia Aguilar Delgado

Date d'approbation initiale du projet : January 13, 2020

Date de fermeture de l'approbation éthique : August 17, 2022

Maurice Lemelin
Président
CER de HEC Montréal

Signé le 2022-08-17 à 15:23

ABSTRACT

Over the course of the last decade, academic efforts to examine the shifting geographies and reconfigurations of agricultural production networks in the Global South have proliferated. The Global Network Production (GPN) literature in particular, has recently gained considerable prominence as a theoretical framework to examine global production and understand how uneven regional economic development occurs in any particular global industry (Vicol et al., 2019). Its firm-centric orientation, however, limits its application and relevance to examine local actors in agricultural contexts. Consequently, little is known about the ongoing processes of inclusion and exclusion that are constitutive of agricultural GPNs (Bair & Werner, 2011). The thesis therefore poses the following question: **How do value chain development initiatives influence the livelihood upgrading and the inclusion of local communities in agricultural GPNs?** To this effect, the present dissertation is anchored in the current debate surrounding the analytical relevance of the GPN literature to examine smallholder producers and the effectiveness of the cognate value chain development (VCD) literature in successfully integrating smallholder producers in agricultural production networks. We further draw from the conceptual apparatus of these two strands of literature and construct an analytical framework based on the key concepts of 'livelihood upgrading', 'value chain upgrading' and 'inclusion challenges'. This thesis therefore adopts a single instrumental case study (Stake, 2005), where we study the case of small-scale producers in the argan production network (APN) in Morocco. In this respect, we adopt a qualitative naturalistic methodology (Guba, 1978) to tease out the lived experiences of argan producers (Strauss & Corbin, 1998) and reconstruct the upgrading and inclusionary processes of the APN (Patton, 2014) following a constructivist paradigm (Stake, 1995). Our methodological approach is also longitudinal in nature (Pettigrew, 1990; Van de Ven, 1992) which is suited to provide an in-depth analysis of a complex system (Burgelman, 2011) and its evolutionary progression (Langley & Stensaker, 2012). We then present our findings by constructing a detailed composite narrative that we intertwine with a temporal bracketing strategy (Langley, 1999). The emergent findings of this thesis show that while livelihood upgrading did influence the value chain upgrading of local producers to some extent, it was however limited in its ability to influence their inclusion. In this sense, we contribute to the VCD scholarship by advancing the argument that the inclusion of local producers is a cyclical, iterative process that occurs following resourcing actions undertaken by local producers. Moreover, this work advances the literature on GPNs by presenting an elaborated analytical framework that offers invaluable insight into how uneven development occurs at the local level in agricultural contexts. This research further suggests practical implications for policy-makers, donor agencies, governments and local communities in agricultural contexts. Finally, we conclude this dissertation by presenting future research avenues informed by our findings and the limitations we encountered while conducting our research.

Keywords: global production network, value chain development initiatives, livelihood upgrading, value chain upgrading, inclusion processes, small-scale producers, rural production landscapes, uneven development.

RÉSUMÉ

Au cours de la dernière décennie, les efforts académiques visant à examiner les géographies changeantes et les reconfigurations des réseaux de production agricole dans le Sud ont proliféré. La littérature sur la production en réseau mondial (GPN), en particulier, a récemment acquis une importance considérable en tant que cadre théorique pour examiner la production mondiale et comprendre comment un développement économique régional inégal se produit dans une industrie mondiale particulière (Vicol et al., 2019). Son orientation centrée sur la firme limite toutefois son application et sa pertinence pour examiner les acteurs locaux dans les contextes agricoles. Par conséquent, on en sait peu sur les processus continus d'inclusion et d'exclusion qui sont constitutifs des GPN agricoles (Bair & Werner, 2011). La thèse pose donc la question suivante : **Comment les initiatives de développement de la chaîne de valeur influencent-elles l'amélioration du *livelihood upgrading* et l'inclusion des communautés locales dans les GPN agricoles ?** A cet effet, la présente dissertation est ancrée dans le débat actuel sur la pertinence analytique de la littérature GPN pour examiner les petits producteurs et l'efficacité de la littérature sur le développement de la chaîne de valeur (VCD) pour intégrer avec succès les petits producteurs dans les réseaux de production agricole. Nous nous appuyons en outre sur l'appareil conceptuel de ces deux courants de la littérature et construisons un cadre analytique basé sur les concepts clés de '*livelihood upgrading'*, '*value chain upgrading*' et 'les défis de l'inclusion des producteurs'. Cette thèse adopte donc une étude de cas instrumentale (Stake, 2005), où nous étudions le cas des petits producteurs dans le réseau de production d'argan (APN) au Maroc. A cet égard, nous adoptons une méthodologie qualitative naturaliste (Guba, 1978) pour dégager les expériences vécues des producteurs d'argan (Strauss & Corbin, 1998) et reconstruire les processus de mise à niveau et d'inclusion de l'APN (Patton, 2014) selon un paradigme constructiviste (Stake, 1995). Notre approche méthodologique est également de nature longitudinale (Pettigrew, 1990 ; Van de Ven, 1992), et est donc pertinente afin de fournir une analyse approfondie d'un système complexe (Burgelman, 2011) et de sa progression chronologique (Langley & Stensaker, 2012). Nous employons ensuite une stratégie narrative que nous combinons avec une stratégie de *bracketing* temporel (Langley, 1999) afin de construire un récit riche et détaillé d'une histoire organisée et chronologiques des enjeux processuels relatifs à notre cas d'étude, tout en offrant une compréhension plus approfondie des effets de causalité et d'influences entre les évènements étudiés. Les résultats émergents de ce mémoire montrent que si l'amélioration du *livelihood upgrading* a moyennement influencé l'amélioration de la chaîne de valeur des producteurs locaux, elle a cependant été limitée dans sa capacité à influencer leur inclusion. Nous contribuons alors à la recherche sur le VCD en présentant l'argument selon lequel l'inclusion des producteurs locaux est un processus cyclique et itératif qui se produit par suite des actions de ressourcement entreprises par les producteurs locaux. En outre, ce travail fait progresser la littérature sur les GPN en présentant un cadre analytique élaboré qui offre une perspective théorique différente de la manière dont le développement inégal se produit au niveau local dans les contextes agricoles. Cette recherche suggère également des implications pratiques pour les praticiens, les organismes donateurs, les gouvernements et les communautés locales dans les contextes agricoles. Enfin, nous concluons cette thèse en présentant des pistes de recherche futures éclairées par nos résultats et les limites que nous avons rencontrées lors de la réalisation de notre recherche. **Mots clés** : réseau de

production mondial, initiatives de développement de la chaîne de valeur, *livelihood upgrading*, *value chain upgrading*, processus d'inclusion, petits producteurs agricoles, développement inégal.

Acknowledgments

This research project owes much to many people. First, I owe a great debt of gratitude to my academic supervisor Natalia who has been nothing but supportive, kind and patient throughout this entire process. In addition to initiating me to the qualitative methodology, she has broadened my knowledge of academic research and my quality of work has become immeasurably better under her guidance. I am also indebted to her unfailing support in making the unnerving stress and anxiety that accompanied the writing of this dissertation much more bearable. Thank you for everything.

I would also like to extend my thanks to HEC Montréal, and especially to the International Business Department for securing me with the GRAMI funding which allowed me to conduct my field investigation. It truly made a world of difference.

I would also like to express my appreciation and gratitude to all the participants I have encountered during my field work. Your kindness and hospitality have enabled me to collect insightful data and discover a world that was unknown to me prior to my travel. I am further indebted to Dr. Et-Tibari Bouasla and Dr. Lahcen Haddad for taking time out of their busy schedules and providing me with invaluable insights on rural development initiatives and the cooperative system in Morocco. Our conversations have inspired the direction this research has taken. Thank you!

I am also grateful to all my friends, whether in Montréal or Rabat, who have believed in me and provided me with unwavering support while writing this dissertation. Getting through this pandemic together has made the whole ordeal a tad less terrifying. Finally, I would like to express gratitude to my parents who have not only been unfailing in their love throughout this process, but who are absolutely glad it is finally over. I would like to dedicate this thesis to the both of them: to *Mama*, who has always put everyone's well-being above her own and *Papa*, who can never seem to remember that the apple didn't fall far from the tree.

Table of Contents

Tables and Figures

Abbreviations

ANCA	Association nationale des coopératives d'Argane
AP	Argan Project
APN	Argan production network
BASF	Baden Aniline and Soda Factory
EIG	Economic interests groups
EU	European Union
FIMARGANE	Moroccan Interprofessional Federation of the Argan Sector
GPN	Global production network
GTZ	German Agency for International Cooperation GmbH
GVC	Global value chain
HACCP	Hazard Analysis and Critical Control Point
IDRC	International Development Research Center
IP	Intersectoral Partnership
MAAPC	Moroccan Association of Argan Producing Companies
MAF	Ministry of Agriculture and Fisheries
MEDA	MEsures D'Accompagnement
NFAU	National Federation of Usufructuary Rights Holders
NIHD	National Initiative for Human Development
NOSSFP	National Office of Sanitary Security of Food Products
OCD	Office of Cooperative Development
OXFAM	Oxford Committee for Famine Relief
PCDAF	Project for the Conservation and Development of the Argan Forest
PGI	Protected Geographic Indication
PO	Producer Organization
RFACA	Regional Federation of Agricultural Cooperatives
RWFA	Regional Water and Forest Administration
SDA	Social Development Agency
TCP	Third party certification
UCFA	Union of Women Cooperatives for the Production and Marketing of Organic Argan Oil and Agricultural Products
UM5	University Mohammed 5
USDA	United States Department of Agriculture
VCD	Value Chain Development
VSS	Voluntary Sustainability Standards

Introduction

Over the course of the last decade, academic efforts to examine the shifting geographies and reconfigurations of agricultural production networks in the Global South have proliferated. Specifically, a significant body of research has emerged to reflect the underlying relationships between the different actors involved in global agri-food networks at various stages of production (Challies, 2008). The Global Network Production (GPN) literature in particular, has recently gained considerable prominence as a theoretical framework to examine global production and understand how uneven regional economic development occurs in any particular global industry (Vicol et al., 2019). The firm-centric underpinning of this literature, however, limits its application and relevance to examine local actors in agricultural contexts. Consequently, the integration of smallholder producers is typically overlooked in GPN analyses. As such, limited studies have therefore engaged in uncovering the ongoing processes of inclusion and exclusion that are constitutive of GPNs (Bair & Werner, 2011). However, uncovering these processes is essential to expand the GPN literature and in this sense gain better insight into how they can potentially enhance their positions in an agricultural production network.

To this end, this dissertation seeks to conceptually and empirically engage with the theories of GPN and value chain development (VCD), as they relate to the iterative ongoing inclusion processes of rural communities in the Global South. In this, we hope to delineate some of the complex workings and processes in which broad interventionist systems that are constitutive of rural production landscapes mediate the emergence of the conditions to inclusion that producers must navigate and overcome to remain integrated in a particular agricultural GPN. To this effect, the present dissertation is anchored in the current debate surrounding the analytical relevance of the GPN literature to examine smallholder producers and the effectiveness of the cognate VCD literature in successfully integrating smallholder producers in agricultural production networks. We therefore draw from the conceptual apparatus of these cognate literatures and construct our analytical framework around the key concepts of ‘livelihood upgrading’, ‘value chain upgrading’ and ‘inclusion challenges’.

Our study will therefore be guided by the following research question: **How do value chain development initiatives influence the livelihood upgrading and the inclusion of local communities in agricultural GPNs?** To this effect, the objective of this study is twofold. First, we seek to examine how the implementation of livelihood upgrading trajectories through VCD interventions in turn influences the value chain upgrading of smallholder producers in agricultural GPNs. We then aim to unveil the inclusion challenges that can arise following the value chain upgrading of these producers. Specifically, we aim to examine how a constellation of overlapping VCD interventions interact with the prevailing local institutions and socio-political relations that make up rural production landscapes, and how they subsequently influence the inclusionary processes of smallholder producers in agricultural GPNs over time. To this effect, we intend to reconstruct the dynamic evolutionary process of a particular agricultural GPN through the lens of the lived experiences of local actors who were directly involved or indirectly affected by the network under study.

Consequently, we study the case of small-scale producers in the argan production network (APN) in Morocco. In this respect, we adopt a qualitative naturalistic methodology (Guba, 1978) to tease out the lived experiences of argan producers (Strauss & Corbin, 1998) and reconstruct the upgrading and inclusionary processes of the APN (Patton, 2014) following a constructivist paradigm (Stake, 1995). Our methodological approach is also longitudinal in nature (Pettigrew, 1990; Van de Ven, 1992) which is suited to provide an in-depth analysis of a complex system (Burgelman, 2011) and its evolutionary progression (Langley & Stensaker, 2012). We then present our findings using a narrative and temporal bracketing strategy (Langley, 1999).

In this sense, our research offers significant analytical and practical contributions. For instance, we inform the GPN and VCD literatures by addressing several limitations we identified in the literature review. Furthermore, we bridge a divide between these cognate literatures and as such, develop an elaborate framework that analytically illustrates the cyclical inclusion process of smallholder producers that occurs in agricultural GPNs. We also present the practical implications of our research to several key actors who are typically involved in agricultural industries.

Last, this thesis is structured as follows. Chapter 1 represents the literature review where we review the theoretical underpinnings of the upgrading concept in the GPN and VCD literatures. We end the chapter by identifying the limits found in these and presenting a synthesis of possible research avenues. Chapter 2 introduces the analytical framework we constructed based on the theoretical lenses of the GPN and the VCD literatures. Chapter 3 elaborates on the methodological approach and design we adopted to conduct our research, and as such presents the data collection methods, data analysis, quality criteria and ethical considerations of our research. Chapter 4 presents the contextual setting of our case study. Chapter 5 presents the findings by following the analytical strategy we described in our methods. Chapter 6 discusses the main findings of our research how they complement the GPN and VCD literatures where we present our analytical. The chapter ends with outlining the practical implications of our research. Finally, we end our dissertation by presenting the limitations we encountered while conducting our research, and our suggestions of future research directions.

Chapter 1 – Literature Review

This first chapter aims to review the current state of knowledge available on the topic under study, namely 'How do value chain development initiatives influence the livelihood upgrading and the inclusion of local communities in agricultural GPNs*'* Moreover, the main contribution of this chapter lies in exploring two strands of literature cognate to our research problem, as well as building the necessary theoretical foundation that will assist us in our empirical inquiry. To this end, we divided the present chapter into three distinct moments:

1) In the first moment, we look at the global production network literature and outline the different upgrading dimensions relevant to our research. We further examine the upgrading trajectories of each of these dimensions.
2) In the second moment, we look at the literature on value chain development. Specifically, we look at how value chain development interventions look at the inclusion of smallholder producers in global markets. To this effect, we start by providing a brief definition to what a value chain development intervention is. We then look at how value chain upgrading is implemented in the literature and provide a synthesis of its different processes. We subsequently examine how intersectoral partnerships are used as a primary mechanism in the literature to achieve the value chain upgrading and inclusionary processes of smallholder producers.
3) In the third moment, we outline the different limitations we identified in the global production network and value chain development literatures. We end the chapter by creating a synthesis of promising research avenues based on the limitations we have identified.

1. Theory of global production networks

1.1. From global value chains to global production networks

A significant body of work has emerged over the last two decades to examine the underlying relationships between different actors in global agri-food networks at various stages of production (Challies, 2008; Hassler & Franz, 2012). One such approach is referred to as the global value chain (GVC) framework. The GVC's most essential contribution to date lies in the insights it provides regarding the organization of global industries through the lens of two contrasting perspectives: 'top-down' and 'bottom-up', where '*governance*' is regarded as a key concept of the top-down view and actively focuses on the interaction of lead firms with the organization of industrial value chains (Gereffi and Fernandez-Stark, 2016). Specifically, in the tradition of the GVC literature, a value chain is usually shaped by a group of 'lead firms' that operate in specific functional positions along the chain (Ponte et al., 2019). Conversely, the key concept of 'upgrading' represents the bottom-up perspective of the GVC approach. 'Upgrading' in the literature pertaining to GVCs has been defined as the capacity of firms and sectors to proceed to more skilled activities, shift towards making better products, create more seamless and efficient production channels, and enhance their performance within high-value markets (Gereffi, 1999; Kilelu et al., 2017; Vicol et al., 2018).

However, despite the GVC's seminal contribution in understanding the ever-growing complexity and pervasiveness of global trade (Barrientos et al., 2011), its narrow focus on the linear relationships between lead firms and their main suppliers has attracted criticism in the literature (You-Ren Yang & Coe, 2009). Consequently, the GVC approach expanded into a parallel theoretical approach referred to as the global production network (GPN) (Barrientos et al., 2011; Hassler & Franz, 2012; Vicol et al., 2019). For the purpose of this dissertation, we consider the GPN framework to be broadly equivalent to the GVC framework in their approach of upgrading and governance dimensions. We specifically examine how the analytical approach of GPNs goes beyond the linear structure of GVC relationships and accordingly examines the diverse interactions between all relevant actors that influence global production (You-Ren Yang and Coe, 2009; Barrientos et al., 2011). More importantly, it places higher emphasis on the institutional and social context of production and the consequent varying power relations between relevant actors (You-Ren Yang & Coe, 2009; Barrientos et al., 2011). Moreover, the emergence and evolution of

governance has been extensively discussed in both the literature of GVCs and that of GPNs (Gereffi et al., 2005; Mayer & Gereffi, 2010; Gereffi & Lee, 2015; Mayer & Phillips, 2017; Alford & Phillips, 2018; Barrientos, 2019; Gammelgaard et al., 2021; Barrientos, 2022). Keeping with our objective to examine how upgrading in agricultural production networks influences the conditions of inclusion of smallholder producers, who are actors that operate within a complex set of social and political relations that are often overlooked in a GVC context (Vicol et al., 2018), we will therefore refrain from reproducing that discussion and rather primarily focus on the varying dimensions of upgrading found in both literatures.

1.2. Upgrading

Upgrading has been identified as 'a move to higher value-added activities in production, to improve technology, knowledge, and skills, and to increase the benefits or profits deriving from participation in GPNs' (Barrientos et al., 2011; p. 323) and is therefore regarded as an essential process for actors involved in global trade to achieve economic development (Gereffi & Lee, 2016). Table *1* below illustrates the different dimensions of upgrading and their trajectories that are relevant to help tackle our research question.

Table 1: The upgrading dimensions and their relevant trajectories

Upgrading Dimensions	Relevant Trajectories	Authors
Economic Upgrading	*Process*: enhancing production process to make it more efficient. *Product*: improving product quality. *Functional*: performing higher added-value tasks by acquiring new functions or abandoning less efficient ones. *Intersectoral*: achieving product differentiation.	Barrientos et al., (2011); Ponte (2020); Khan et al.,, (2020)
Social Upgrading	*Market-driven*: improving labor conditions following pressure from global buyers to comply with higher social standards of production.	Barrientos et al., (2011); Gereffi & Lee (2016); Khan et al., (2020)

	CSR-driven: global buyers or lead firms set a code of conducts that improves work conditions in the factories or farms of their suppliers. *Multi-stakeholder driven*: collaborative arrangements between different private and non-private actors to improve work conditions in SMEs in developing countries. *Labor-driven*: workers and labor unions assertively improve their work conditions. *Cluster-driven*: clusters firms improve their work conditions within the cluster from the bottom-up. *Public governance driven*: governments implement regulations that support the improvement of labor conditions.	
Livelihood Upgrading	Relationship coffees: potential of collaborative arrangements where lead firms directly engage with smallholders represented by producer organizations and assist them in achieving economic upgrading. Voluntary sustainability standards (VSSs): potential of VSSs to assist smallholders in acquiring higher assets and capital which, instead of limiting them to one revenue stream within the GPN, gives them the ability to choose between different streams that will improve their livelihoods. Geographical indication (GIs): potential of GIs in increasing the value capture of smallholders within GPNs.	Neilson (2019)

Source: Author's elaboration

In its earliest conceptualizations in the literature, upgrading was mainly applied to analytically examine the apparel industry and the implication of the East Asian experiences on apparel sourcing in North America (Vicol et al., 2018). Furthermore, upgrading was initially identified as a process which involves organizational learning that is necessary for firms (or nations) to improve their

positions in international trade networks and was referred to as 'industrial upgrading' (Gereffi, 1999). The GPN literature subsequently went beyond the analysis of manufacturing industries to include the agro-food industry and services sectors (Barrientos et al., 2011).

Consequently, upgrading in GPNs became referred to as 'economic upgrading' with the keen intent of highlighting 'paths for actors to move up the value chain for economic gain' (Ponte, 2020; p.4). This body of work was divided into a fourfold typology of economic upgrading trajectories: (1) *process:* reorganization of production activities to achieve a more efficient transformation of inputs into outputs, (2) *product*: moving into more advanced products with an increased unit value, (3) *functional*: acquiring new or abandoning old functions to perform higher value-added tasks and (4) *intersectoral:* applying the competences acquired in one function of the chain and using them to move into new industries and product markets (Barrientos et al., 2011; Ponte, 2020). The early literature on economic upgrading heavily focused on firm-level competitiveness (Vicol et al., 2018) and revealed that lead firms were more likely to assist their suppliers with improving their product and process systems rather than achieving functional and intersectoral upgrading (Khan et al., 2020).

However, this narrow firm-centric focus of economic upgrading was found to frequently ignore inclusionary processes in GPN and therefore fell short of explaining how 'inequality is produced and reproduced in the global economy' (Vicol et al., 2018; p. 28). Subsequent efforts in GPN scholarship have therefore moved beyond the analysis of economic upgrading to examine the new dimension of social upgrading (Barrientos et al., 2011) and the interactions between the two dimensions (Khan et al., 2020. Social upgrading is defined as *'the process of improvement in the rights and entitlements of workers as social actors and the enhancement of the quality of their employment'* (Gereffi & Lee, 2016; p. 283). This could be achieved through access to better work following an economic upgrading within a value chain or by enhancing the rights and working conditions of workers (Barrientos et al., 2011). These improvements in work conditions have been divided in standards easily measurable as they comprise quantifiable elements that include type of employment, working hours and social auditing, and improvements in enabling rights such as freedom of association which are less tangible and more difficult to measure (Barrientos et al., 2011; Barrientos, 2014). Furthermore, an extensive body of work in the literature viewed economic

and social upgrading as intertwined processes and was consequently dedicated to articulating the relationship between the two dimensions (Ponte, 2020). In this vein, critical work has argued that despite earlier assumptions, the economic upgrading of firms does not necessarily guarantee improvements in labour conditions or overall social conditions (Vicol et al., 2018; Neilson, 2019; Vicol et al., 2019; Gammelgaard et al., 2021). In fact, Gereffi and Lee (2016) found that the economic upgrading of firms can sometimes result in 'social downgrading' where the conditions of workers could further deteriorate instead of improving.

Gereffi and Lee (2016) highlight multiple trajectories of social upgrading: a market-driven path, where the demand for goods produced with high social standards forces suppliers to improve labor conditions in their factories and farms; a CSR-driven path, where the improvement of work conditions is simulated by codes of conduct set by global buyers; a multi-stakeholder path, where private and non-private actors collaborate to improve working conditions in SMEs in developing countries; labor-driven path, where workers and labor unions actively promote their upgrading and achieve improved working conditions; a cluster-driven path, where cluster firms work from the bottom-up to improve working conditions within the cluster; and a public-governance path, where governments implement regulations that directly improve labor conditions. These paths are not mutually exclusive and often overlap where they either complement or displace each other (Gereffi & Lee, 2016; Khan et al., 2019).

Despite its contribution to the literature in providing important insights into the social conditions of workers in industrial and manufacturing GPNs, social upgrading presented significant limitations. As a case in point, Vicol et al. (2019) argue that the insights and application of social upgrading remain limited to firms and other economic actors and therefore does not extend to include smallholder producers integrated in GPNs. Specifically, an emerging critical body of work argues that it is unclear how the concept of social upgrading can be applied to smallholder-based agricultural GPNs where smallholder households cannot be conceptualized as economic actors (Vicol et al., 2018; Neilson, 2019; Vicol et al., 2019). To this end, the GPN research agenda has recently expanded to examine the livelihood upgrading of smallholders 'who pursue complex livelihood strategies' (Neilson, 2019; p. 297). Vicol et al. (2019) further argue that the conceptualization of livelihoods in agricultural GPNs is central in providing the necessary

theoretical lens to inform issues of rural development, but more importantly, provide insights on the challenges faced by marginalized producers in inclusionary processes. As such, and drawing insights from the coffee industry, which is dominated by diversified smallholders, Neilson (2019) highlights three trajectories of livelihood upgrading in GPNs: (1) relationship coffees through specialty market, (2) voluntary sustainability standards (VSSs), and (3) geographical indications (GIs).

First, *relationship coffees* as a trajectory is based on the conclusions drawn from three studies conducted by Vicol et al. (2018). Relationship coffees refers to partnerships developed by roasting firms with smallholders that are themselves represented by local producer organizations such as cooperatives. These partnerships target marginalized rural communities and are associated with roasting firms directly engaging with producer communities, along with an apparent increased commitment to social responsibility (Vicol et al., 2018). Neilson (2019) further explains that roasting firms develop relationships with smallholders represented by local producer organizations and assist them in achieving economic upgrading of the production process. Vicol et al. (2018) concluded that while it presents opportunities for producer upgrading, the expected benefits to be reaped from relationship coffee model are only captured by a small number of key individuals within the producer community who are able to accumulate wealth and consolidate their social position through the implementation of relationship coffees.

Next, *voluntary sustainability standards* (VSS) are third-party interventions that often take the form of certification schemes and aim to encourage change in production methods to achieve value chain sustainability (Bray, 2019). Moreover, VSS schemes are introduced with the assumption that improving production practices translates into the livelihood upgrading of producers (Neilson, 2019). The case study conducted by Bray and Neilson (2017) finds that the impacts on poverty alleviation following the implementation of VSS schemes are very limited. Consequently, Neilson (2019) presents the argument that VSSs, instead of narrowly focusing on poverty alleviation, should rather aim to target the improvement of the livelihood capitals of producers, which ultimately could lead to 'providing greater options and assets for households that will ultimately choose from a suite of different livelihood strategies available to them' (p:304).

Last, Neilson (2019) introduces the potential of *geographical indications* (GIs) as a livelihood trajectory. Here, through conclusions based on research in the Indonesian's coffee sector, the author found that GIs have been introduced as an upgrading intervention that could potentially enhance the livelihoods of rural households by increasing their value capture within a given GPN. The proliferation of GIs in global markets is a product of the importance given to geographical knowledge in the marketing of ethical production according to global consumption patterns (Hassler & Franz, 2012). Specifically, global consumers are more inclined to purchase goods that comply with stringent social and environmental production standards (Hassler and Franz, 2012). Hassler and Franz (2012) also find that consumers are more likely to pay a higher price for goods that display the geographical knowledge that traces its production process. GI certification schemes are therefore used as a mechanism to inform global consumers of the authenticity of a product labelled as such. This in turn enables smallholders to integrate an agricultural GPN and achieve upgrading while improving the value capture from their produce (Neilson, 2019). However, Neilson (2019) found that the GIs introduced to the research site were reshaped by local institutional settings to serve political objectives that are in most cases not aligned with their intended purposes. To this end, the author suggests that livelihood upgrading, especially through GIs, rather than be implemented as top-down blueprint, should instead consider the local socio-institutional context, and be accordingly adapted and implemented to encourage their inclusion within a GPN.

Finally, the literature has also recently started to look at environmental upgrading, which is a 'process seeking to improve or minimize the environmental impact of GVC operations, such as production, processing, distribution, consumption and disposal, reuse or recycling' (Ponte, 2020; p. 5). The emerging literature on environmental upgrading has so far articulated its relationships with economic upgrading (Khan et al., 2019) and with suppliers in GVCs/GPNs (DeMarchi & DiMaria, 2019). Poulsen et al., (2018) have also looked at how maritime transport influences environmental upgrading. However, since environmental upgrading goes beyond the scope of our study, we will mainly focus on the dimensions of economic, social and livelihood upgrading in GPNs. We will now turn to the literature on value chain development to learn more about the existing debates on upgrading and inclusion processes of smallholder producers in agricultural production landscapes.

2. Theory of value chain development

2.1. Upgrading in value chain development

The value chain development (VCD) scholarship in development studies is a parallel strand of the literature that specifically looks at the inclusion of smallholder producers into agricultural GPNs. It emerged in the early 2000s as a part of a broader international development agenda to combat poverty in the Global South (Stoian et al., 2012; Vicol et al., 2018). Moreover, the VCD literature was designed as a markets-based interventional approach that aims to reduce poverty in the global south (Stoian et al., 2012). A VCD intervention is defined by development agencies as a '*positive or desirable change in a value chain to extend or improve productive operations and generate social benefits: poverty reduction, income and employment generation, economic growth, environmental performance, gender equity and other development goals'* (Devaux et al., 2018; p.102). An additional definition is provided by Donovan et al. (2017) where VCD intervention is a '*process by which government agencies, NGOs, and private companies engage with smallholders and their businesses (e.g., co-operatives and producer associations) to reduce poverty, increase the efficiency of value chains and enhance their environmental and social performance*' (p.10).

VCD interventions typically target smallholder producers in marginalized rural areas (Ros-Tonen et al., 2019) and intend to connect them to international markets that saw an increasing demand for *'agricultural and forest products and services produced with environmental and societal responsibility'* (Stoian et al., 2012; p. 75). Consequently, VCD interventions have been wholeheartedly embraced by governments, donors, and development agencies alike as a key strategy to stimulate economic growth (Devaux et al., 2018) and improve the income of marginalized populations through generating value addition in upstream activities (Kalibwani et al., 2018). Consequently, since VCD interventions often target marginalized actors in a value chain, they have been described as 'inclusive' value chains as they seek to achieve the inclusion of smallholder producers into global markets in a way that benefits them (Neilson, 2014). A central theme in the VCD literature is its co-optation of the upgrading concept and its subsequent

operationalization as an action framework to implement development interventions in agricultural GPNs where it is referred to as 'value chain upgrading' (Vicol et al., 2018).

Specific literature on value chain upgrading in VCDs shows upgrading as a set of strategies where leverage points are identified to influence positive change for smallholder producers (Kilelu et al., 2017). Furthermore, these leverage points must '*go beyond general arguments on market integration, production efficiency and growth, to unlocking socio-technical barriers (e.g. equitable access to technology, inputs, credit, market information, physical infrastructure, environmental issues) and institutional barriers that limit the integration and performance of poor men and women rural producers in agri-food systems'* (Kilelu et al., 2017; p. 1104-1105). As previously indicated, the literature on GPNs has defined economic upgrading trajectories that essentially apply to analytically examine industrial and manufacturing contexts. On the opposite hand, the VCD literature looks at how processes of value chain upgrading could potentially improve the position of smallholder producers in global markets. To this effect, we build from Kilelu et al. (2017) and various authors to offer a complete overview of the different processes of value chain upgrading applied in a context that is relevant to our work. Building on previous notions of upgrading in GVC and GPNs, this research indicates two main dimensions adapted to agricultural upgrading in VCD interventions: (1) improving process and product, (2) changing and adding functions and. Table *2* below illustrates these different value chain upgrading processes.

Improving process and product involves process upgrading and product upgrading and are often complementary with one another. In process upgrading, productivity is improved to increase volumes or reduce production costs (Kilelu et al., 2017). It can also refer to small producers achieving a more efficient production by reorganizing the value chain or introducing new equipment and technologies in a way that is directly beneficial to them (Trienekens & Van Dijk, 2012). On the opposite hand, product upgrading can involve improving the quality of a product through certification, safety standards, traceability, or moving to more sophisticated product lines (Kilelu et al., 2017). Product upgrading could also aim at enhancing the marketing, promotional strategies, composition, and packaging of a particular product (Trienekens & Van Dijk (2012).

Changing and adding function, in turn, includes functional upgrading and intersectoral upgrading. In agricultural GVCs, functional upgrading has been defined as the ability of producers to take on new functions in the chain, while intersectoral upgrading refers to the process where producers use the skills and experiences they have developed in a chain to engage in another one (Kilelu et al., 2017).

Table 2: Dimensions of value chain upgrading in the VCD literature.

Value chain upgrading	Characteristics	Authors
Improving process and product	*Process upgrading:* small producers achieving a more efficient production by increasing volumes, reducing transaction costs and introducing equipment and technologies in a way that directly benefits them. *Product upgrading:* creating new products or improving the quality of existing products through certification, safety and traceability standards.	Mitchell et al. (2009); Trienekens and Van Dijk (2012); Kilelu et al. (2017).
Changing and adding functions	*Functional upgrading:* when producers can take on new higher value functions. *Intersectoral upgrading:* product differentiation.	

Source: Author's own elaboration

2.2. Intersectoral partnerships as a mechanism to implement value chain upgrading

Upon further review of the literature, we found that a major contribution of VCD is the facilitation of collaborative arrangements to achieve value chain upgrading (Kilelu et al., 2017). Ponte and Ewert (2009) found that the main argument in the GPN literature is that economic upgrading in various contexts can only be simulated by lead firms. Trienekens and Van Dijk (2012) however, present the argument that value chain upgrading in agricultural GPNs can rather only be achieved through the implementation of intersectoral partnerships (IPs). As previously indicated, numerous governments and development agencies have turned to adopting the VCD research agenda of value

chain upgrading as a key development strategy to ensure the value addition of production trickles down to smallholders or local communities in the chain. To this effect, finding partners that complement the implementation of a VCD intervention in an agricultural GPN is crucial to its success (Kalibwani et al., 2017).

IPs are cross-sector collaborations that attempt to address complex social-ecological challenges such as poverty, food insecurity and biodiversity loss (Bitzer & Glasbergen, 2015). Bitzer et al. (2013) further define IPs as '*collaborative institutionalized arrangements between actors from two or more sectors of society – market, state and civil society- which aim at the provision and/or protection of collective goods*' (p: 6). IPs have proliferated in agricultural GVCs and are usually Northern-based initiatives between MNCs and international NGOs implemented in the global South to assist smallholder farmers in implementing sustainable production resources and have better access to global consumer markets (Bitzer & Glasbergen, 2015; Glasbergen, 2018). However, IPs can also be comprised of various other actors such as MNCs and governments (Thorpe, 2018; Akullo et al., 2018) or MNCs, governments, producers and independent facilitators between actors (Thorpe & Maestre, 2015). Other actors that could be involved in an IP are banking institutions or service providers (Trienekens & Van Dijk, 2012). Trienekens and Van Dijk (2012) also present the argument that IPs could take the form of certifications, government legislations and business practices. Furthermore, the proliferation of IPs can be attributed to the potential of the different collaborating actors to utilize their complementary capabilities and resources to address issues they would not be able to individually overcome (Bitzer & Glasbergen, 2015). Consequently, IPs have become essential catalysts of value chain upgrading in the VCD literature (Kalibwani et al., 2017) where they can attract new investments or improve the performance of poorly functioning existing chains (Thorpe, 2018). We will now turn our attention to the role of IPs in achieving the inclusion of smallholder producers in global markets.

2.3. Intersectoral partnerships and smallholder inclusion

The VCD literature reveals that IPs facilitate value chain upgrading in agricultural GPNs through the implementation of certification schemes, which in turn is believed to promote the inclusion of marginalized producers. To do so, IPs provide technological, organizational, political, and educational support to smallholder producers (Trienekens & Van Dijk, 2012). Additionally, IPs

help change the macro cultural discourse that is dominant on the local level within an agricultural GPN which further encourages the implementation of a certification scheme (Trienekens & Van Dijk, 2012). Lawrence and Phillips (2004) define macro cultural discourse as: '[…] the broad discourses and associated sets of institutions that extend beyond the boundaries of any institutional field and are widely understood and broadly accepted in a society (p. 691)' and finds that macro cultural change is important to develop a new commercial activity. Keeping in mind that value chain upgrading is essentially linked to agricultural innovation (Giuliani et al., 2005), GPN actors must therefore draw from the macro cultural discourse dominant in a local context to produce the innovations they seek to implement in production processes.

Furthermore, the VCD literature views the implementation of these support services as an important incentive that creates pre-conditions for the inclusion of smallholder producers in global markets (Thorpe, 2018). Building on Bolwig et al. (2010), Kilelu et al. (2017) further argue that *improving value chain coordination* is essential to achieve the value chain upgrading of producers and their subsequent inclusion into a global agricultural production network. Accordingly, improving value chain coordination is achieved through *horizontal coordination* and *vertical coordination*. On the one hand, *horizontal coordination* in an agricultural GPN typically occurs through the creation of collective action, such as POs and cooperatives (Mitchell et al., 2009; Trienekens & Van Dijk, 2012; Kilelu et al., 2017). This form of horizontal upgrading is believed in the literature to be essential in helping marginalized small-scale producers achieve economies of scale and reduce transaction cost (Kilelu et al., 2017), which would eventually enable them to benefit from their inclusion in a particular agricultural GPN (Mitchell et al., 2009). Horizontal coordination can further be achieved when disadvantaged smallholders are able to collaborate with non-chain actors to address asymmetric power relations and enhance the equity and sustainability of the value chain (Kilelu et al., 2017). On the other hand, *vertical coordination* is achieved when disadvantaged producers move away from 'one-off spot transactions towards longer-term inter-nodal relations' (Mitchell et al., 2009; p: 3) by using varied contractual arrangements such as contract farming (Kilelu et al., 2017). Another way to achieve vertical coordination in an agricultural GVC is when small-scale producers are able to move between different market channels (Trienekens & Van Dijk, 2012). Consequently, producers become less dependent on only one market channel where they can remain captive, which can result in greater certainty regarding upcoming revenue flows (Mitchell et al. 2009).

IPs are typically instrumental in improving the horizontal and vertical coordination of agricultural GPNs in order to achieve smallholder inclusion. As a case in point, IPs assist in both the formation or the improving of existing producer organizations, most often cooperatives, which in turn helps smallholder producers create economies of scale and reduce transaction costs (Thorpe, 2018). Cooperatives are a form of pro-democratic organizational models that are common in the agricultural sector and enable the collective agency of small-scale producers (Giuliani et al., 2017; Thorpe, 2018). Additionally, the support services provided by IPs are believed to facilitate producer access to certification schemes by improving the standards of production (Giuliani et al., 2017) within cooperatives, thus influencing their value chain upgrading and enabling their access to international markets (Naylor, 2014). Through certification schemes, smallholders involved in cooperatives can also enjoy higher revenues than independent producers (Naylor, 2014).

Certification schemes have become widespread in agricultural industries as they are assumed to allow small-scale producers and farmers to access new markets and capture higher gains while improving their social and environmental performance (Giuliani et al., 2017). The most common certification types found in the literature that can be awarded to cooperatives in agricultural GPNs are 'first-party certifications' and 'third-party certifications'. Giuliani et al. (2017) describe first-party certification as 'in-house' certification that are usually developed by private firms (i.e., large global buyers or multinational corporations (MNCs)) that coordinate important value chains in different locations. Jaffee (2012) further describes this certification type as 'corporate self-policing systems with no intermediary involved' (p: 98). In-house certifications are directly implemented by the lead firms that developed them on the farmers that supply them (Giuliani et al., 2017).

Conversely, third-party certifications (TCPs) is 'a product safety and quality verification mechanism in which third parties assess, evaluate and certify safety and quality claims' following a particular set of standards (Hatanaka & Busch, 2008; p: 73). TPCs are conducted by independent bodies which verify the claims made by the firms seeking a certification through rigorous auditing (Jaffe, 2012), and constitute the most prominent and highly influential regulatory mechanism in agricultural value chains (Hatanaka & Busch, 2008). These certification schemes are typically led by multilateral and non-governmental organizations (NGOs) such as the Fairtrade and Organic certifications (Giuliani et al., 2017).

Finally, our interest lies mainly in examining how IPs implement these schemes to promote the value chain upgrading of smallholders in agricultural GPNs and its subsequent influence on inducing inclusionary challenges following VCD interventions. We will move to the limitations and promising research avenues we have identified in the GPN and VCD literatures.

3. Limitations and promising research avenues

Through our synthesis of the GPN and VCD literatures, we were able to identify numerous limitations and research avenues that require further inquiry. First, we outline the limitations we identified in the literature pertaining to the livelihood upgrading concept. Next, we list the limitations we identified in the value chain development, specifically those pertaining to intersectoral partnerships. Finally, we look at promising avenues of research that can assist us in answering our research question.

3.1. Limitations of the livelihood upgrading concept

While the GPN framework was lauded in the literature for its ability to offer a broader analysis of uneven global economic development, it still falls short of moving beyond its firm-centric approach (Vicol et al., 2019). As such, the GPN framework still looks at lead firms as a central node that influence global economic development, and consequently neglects incorporating rural territories in its analysis (Vicol et al., 2019). To this effect, livelihood upgrading was introduced as a promising first step towards integrating smallholder producers into the analysis of agricultural GPNs. As previously indicated, the conceptualization of livelihood trajectories in GPN analysis is essential to shed light on the inclusionary processes of smallholder producers in agricultural GPNs. However, the concept presents some limitation in its application as most of the emerging research on livelihood upgrading was essentially based on the coffee industry (Neilson & Shonk, 2014; Bray & Neilson, 2017; Vicol et al., 2018; Neilson, 2019). As a case in point, the ‘relationship coffees through specialty market’ previously indicated is a livelihood trajectory that is exclusive to the coffee industry. Furthermore, the potential of VSSs and GIs in achieving livelihood upgrading has not been explored in the literature beyond their influence on the Indonesian coffee GPN. It therefore remains unclear how the concept of livelihood upgrading can be applied in the analysis of other agricultural GPNs.

One exception is Vicol (2019) and Vicol et al. (2019) who attempted to bridge this gap by looking at livelihood pathways through the case study of a potato contract farming GPN in India. However, while the authors successfully showed the importance of including a livelihood perspective to reveal the underlying developmental outcomes of smallholder households in a way that the GPN framework alone cannot do, it does not entirely inform us of the inclusionary processes that occur within an agricultural GPN. As a case in point, Vicol et al. (2019) focused specifically on the experiences of a lead firm (PepsiCo) that engaged in contract farming with a few smallholder households. The scale of the study is therefore too limited to draw tangible conclusions and lessons on smallholder inclusionary processes in a GPN.

3.2. Limitations of the intersectoral partnerships research agenda

In a similar vein, the inclusionary processes of smallholders in global markets remain unclear in the VCD literature. For instance, Thorpe (2018) found that the evidence base of IPs research is limited to independent impact evaluations that mainly focus on the empowerement of marginalized farmers following IP interventions. Moreover, available research demonstrated that while IPs have had some success achieving the inclusion of smallholders by providing the support services they need to improve their production systems, it has however overlooked how access to these services influences the behaviors of smallholders within chains (Thorpe, 2018). The literature has also failed to examine how IPs can create unforeseen challenges that impede the inclusion of smallholders in agricultural GPNs following their implementation (Doherty and Kittipanya-Ngam, 2021). Thorpe (2018) also found that there is little research exploring the role of public actors in implementing these collaborative arrangements. Additionally, Bitzer and Glasbergen (2015) found that the literature has mainly researched IPs as individual arrangements instead of examining them as part of a broader system of interventionist responses to socio-ecological problems in the global South. Furthermore, our review of the literature revealed the importance of certification schemes given by IPs in achieving value chain upgrading. However, available research on the influence of certifications implemented by IPs on the inclusion of smallholders is usually concerned with either looking at how IPs successfully provide the necessary support system to help them achieve inclusion or it looks at how the stringent requirements of certifications can have an adverse effect and effectively exclude them from a GPN. Consequently, available research, to the best of our

knowledge, does not look at the subsequent inclusionary processes smallholders undergo to remain involved in an agricultural GPN. Specifically, it doesn't inform us of the strategies smallholders implement to avoid exclusion: e.g., -but not limited to- do they look for other market channels to sell their products? Do they turn to trading with intermediary actors? Available research therefore barely 'scratches the surface' so to speak in their study of smallholder inclusionary processes.

3.3. Promising research avenues

In addition to the limitations we have identified in our review of the GPN and VCD literatures, many avenues of research emerged that can guide us in tackling our research question. Table *3* below synthesizes the limitations and corresponding avenues of research that emerged from our literature review.

For instance, despite their similar aspirations to tackle inclusionary processes of smallholders, Vicol et al. (2019) found that the value chain upgrading in VCDs has not thoroughly engaged with the GPN framework. To this effect, the authors call for additional research to explore how livelihood upgrading can expand the GPN framework to include smallholder production. In this sense, bridging this divide between both literature strands could therefore provide additional insight into the inclusionary processes of smallholder producers in agricultural GPNs. Thorpe (2018) indicated that future research could further inquire into the role of governments in enabling smallholder inclusion through IPs. Furthermore, our review of the GPN literature led us to conclude that a large body of research has extensively explored the interactions between economic and social upgrading, while the relations between livelihood upgrading and economic upgrading have been overlooked. Future research could therefore explore the interactions between economic upgrading or VCD value chain upgrading and how they influence one another. Finally, Grabs and Ponte (2019) found that GPN research is amalgamation of 'snapshot analyses of particular industries and products at moments in time' and has thus failed to 'explain the changes in production systems over time in theoretically robust ways' (p. 803-804). The authors therefore encourage future work to apply an evolutionary perspective that would allow us to '*look at changing value chain conditions in a theoretically robust fashion, but also to potentially anticipate the outcomes of future instances of value chain re-organization and their consequences for the development and value capture of marginalized producers*' (p. 824).

Table 3: Synthesis of limitations and promising research avenues

Theory	Limitations of research so far…	Need for an improved understanding of…
Global production network	♦ Livelihood upgrading was essentially based on the coffee industry (Neilson, 2019). ♦ Existing studies on livelihood upgrading focus on the analysis of specific case studies where a lead firm engages directly with producers (Vicol et al., 2018; Vicol et al. 2019). This ignores the reality of rural production landscapes where a plethora of intervention schemes are overlapped (Li, 2007; Bitzer & Glasbergen, 2015). ♦ The interactions between livelihood upgrading and economic upgrading have not been studied. ♦ GPN analyses are 'snapshots' of industries at a specific time and place (Ponte & Grabs, 2019).	♦ Apply livelihood upgrading to other agricultural GPNs to further expand the concept. ♦ Measure livelihood upgrading against agricultural contexts where numerous interventions overlap and influence the overall production system. ♦ Examine the interactions between economic and livelihood upgrading in a specific GPN context to see how they influence one another. ♦ Apply an evolutionary perspective to analyze an agricultural GPN (Ponte &Grabs, 2019).
Value chain development	♦ Available research focuses on impact of IPs smallholder empowerement (Thorpe, 2018). ♦ Existing literature has overlooked how IPs influence the behavior of smallholders within a GPN (Thorpe, 2018) and doesn't examine how IPs can influence unforeseen challenges to the inclusion of smallholders (Doherty & Kittipanya-Ngam, 2021). ♦ Existing studies do not look at how smallholders remain included in a GPN after having to face the challenges resulting from IP interventions. ♦ Existing research has mainly looked at IPs as individual arrangements rather than examining them as part of a broader system	♦ Examine how IP interventions influence the behavior and inclusionary processes of smallholders in an agricultural GPN. ♦ Examine IPs within as a broader overlapping system rather than as individual interventions. ♦ Inquire into the role of governments in enabling smallholder inclusion through IPs (Thorpe, 2018). ♦ Bridge the divide between the GPN and VCD literatures by looking at value chain upgrading through the lens of livelihood upgrading to gain better insight into inclusionary processes of smallholders (Vicol et al., 2019).

	of interventionist system typical of the Global South (Bitzer & Glasbergen, 2015).	

Source: Author's elaboration

To conclude, we have outlined the theoretical foundations and have therefore laid the analytical groundwork necessary to answer our research question. Consequently, using our literature review as a building block, we will now move to the next chapter where we will construct the analytical framework that will enable us to examine the data we have gathered through our fieldwork.

Chapter 2- Analytical Framework

This second chapter aims to present the analytical framework we have constructed to assist in our research inquiry. More precisely, we articulate our framework around the GPN and VCD cognate literatures. To this effect, this chapter is divided into three segments. First, we present the conceptual apparatus we borrow from the VCD literature. The aim is to use this apparatus to critically examine how value chain development initiatives influence the livelihood upgrading and the inclusion of local communities in agricultural GPNs. Then, we outline the inclusion challenges we identified in the VCD literature to further inform the gaps underlined in the literature. In the final segment, we introduce the analytical framework we will use to present our findings.

2.1. Insights from GPN and VCD literatures: a starting point

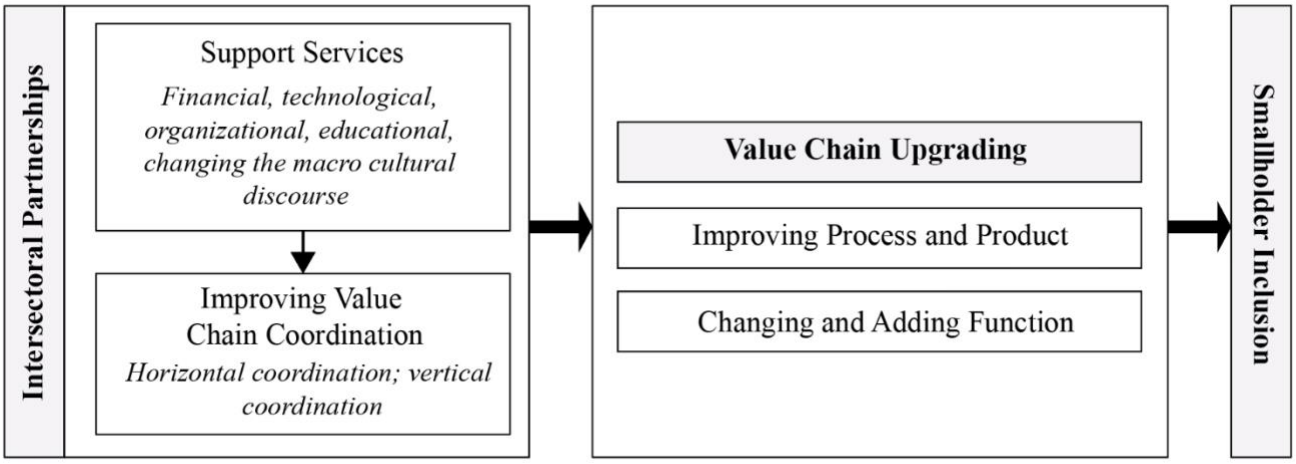
In this sub-section, we examine the cognate GPN and VCD literatures to build the first segment of our analytical framework. In this respect, we seek to examine the concept of livelihood upgrading from the perspective of smallholder producers in agricultural GPNs and turn to the theoretical apparatus developed by the VCD literature to gain insights into the livelihood inclusionary processes of these actors.

Our theoretical review of the GPN literature indicates livelihood upgrading as the most pertinent concept to investigate the integration of smallholder producers in agricultural GPN. However, research in this area has been limited to identifying three trajectories of livelihood upgrading with the potential to secure the economic upgrading of smallholders and therefore promote their inclusion in a particular agricultural GPN (Neilson, 2019). As previously stated, these trajectories are collaborative arrangements that provide support services to marginalized producers and as such influence their economic upgrading (Vicol et al., 2018; Neilson, 2019; Vicol et al., 2019).

Furthermore, we demonstrated how VCD interventions target smallholder producers in agricultural GPNs to increase their income and subsequently stimulate their economic growth through the intervention of similar arrangements we identified as IPs (Trienekens & Van Dijk,

2012; Kalibwani et al., 2017). In this respect, IPs influence the value chain upgrading of these actors and consequently promote their inclusion in the global market (Kalibwani et al., 2017; Thorpe, 2018) by providing support services to marginalized producers that promote the improvement of their horizontal and vertical coordination within a specific agricultural GPN (Trienekens & Van Dijk, 2012; Naylor, 2014; Giuliani et al., 2017; Kilelu et al., 2017 Thorpe, 2018). Additionally, we identified the value chain upgrading dimensions as, '*improving process and product'*, '*changing and adding function'*, (Mitchel et al., 2009; Trienekens & Van Dijk, 2012; Kilelu et al., 2017). Therefore, we build from our literature review to create a synthesis of how a typical VCD intervention influences the inclusion of smallholder producers. This synthesis is illustrated in *Figure 1* below:

Figure 1: Synthesis of a typical VCD intervention



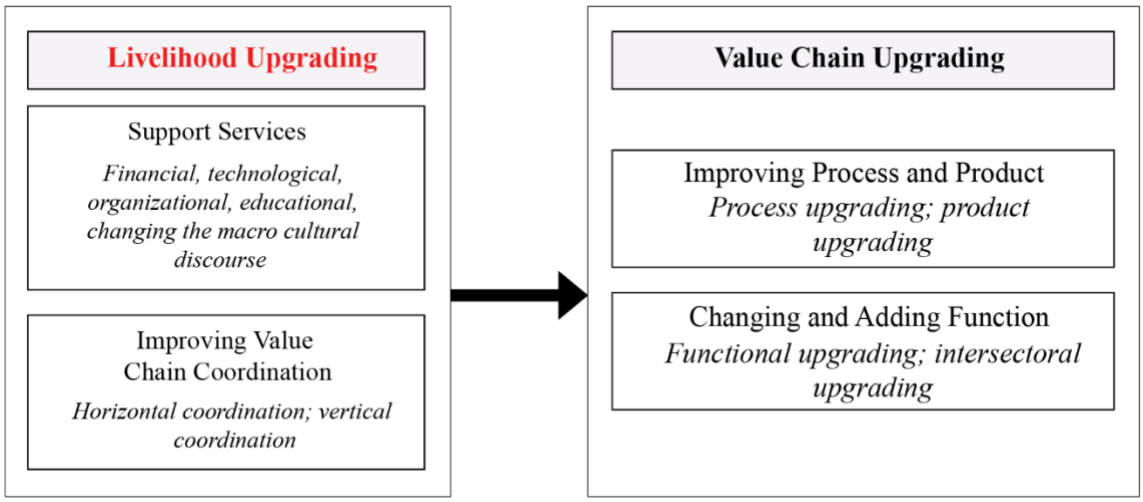
Source: Author's elaboration based on literature review.

Moreover, we previously stated that the livelihood trajectories drawn by Neilson (2019) are collaborative arrangements that provide support services to marginalized producers to influence their economic upgrading. In this sense, these trajectories are essentially VCD interventions. In view of this, we aim to complement the analytic of livelihood upgrading with the conceptual repertoire drawn from the VCD literature through the adoption of the IP dimensions and thus present a critical examination of how livelihood upgrading trajectories are implemented in a specific agricultural GPN. Our review of the literature has also revealed that the concept of

'economic upgrading' is firm-centric and therefore frequently fails to provide a critical perspective of smallholder producers in a GPN (Vicol et al., 2018). We therefore move beyond the analysis of economic upgrading and adopt the concept of value chain upgrading where we borrow the dimensions of '*improving process and product*', and '*changing and adding function'* to gain better insights into the inclusionary processes of smallholder producers in agricultural GPNs.

In sum, the theoretical lenses we borrow to build our analytical framework will enable us to investigate how livelihood upgrading trajectories provide the support services needed by smallholder producers to influence their value chain upgrading. More importantly, examining livelihood upgrading through the dimensions of IPs and its subsequent influence on value chain upgrading bridges a divide we identified in the GPN and VCD literatures (Vicol et al., 2019). As such, we believe it is helpful to borrow from the conceptual apparatus developed by the VCD scholarship to gain insights into the livelihood inclusionary processes of smallholders from a GPN perspective. Figure *2* below therefore illustrates the first segment of our analytical framework. In this respect, we show how we borrow from the VCD literature to investigate livelihood upgrading in an agricultural GPN:

Figure 2: First segment of our analytical framework pertaining to livelihood upgrading of smallholder producers in agricultural GPNs.



Source: Author's own elaboration

2.2. Challenges to the inclusion of smallholder producers

To build the second segment of our analytical framework, we now turn to the VCD scholarship that examines the inclusion of smallholder producers in agricultural GPNs. In a similar vein to previous sub-section, we turn to VCD to complement the scholarship of inclusionary processes of smallholders in GPNs.

As previously stated, IPs typically promote the inclusion of smallholder producers in a rural production system by influencing their value chain upgrading. Moreover, the GPN and VCD research agenda are essentially concerned with either the success or failure of interventions in achieving the inclusion of marginalized producers in global markets. Therefore, in an attempt to provide more insight into the inclusionary processes of smallholders in agricultural GPNs, we will investigate instead the inclusion challenges that potentially emerge following livelihood upgrading interventions. As a case in point, Doherty and Kittipanya-Ngam (2021) identified six challenges that can potentially prevent the inclusion of smallholder producers in the VCD literature: *meeting quality and certification standards; capacity building; access to credits; availability of technology*

inputs and infrastructure; constraints in accessing markets; and power imbalances. Consequently, we build on these dimensions identified by the authors and elaborate them based on additional literature on VCDs.

The first challenge can occur when small-scale producers do not have access to certain resources that would effectively enable them to meet certification standards. For instance, small-scale farmers could have access to limited or no information regarding certification procedures (Perez-Aleman & Sandilands, 2008) or to certain collaborative arrangements that could help them meet certification standards (Deans et al., 2017). Perez-Aleman and Sandilands (2008) also demonstrate how certification costs such as the price of obtaining and renewing a certification, switching production methods, and in some cases, possible reductions in yields can prevent some small-scale producers from meeting certification standards, which can in turn exclude them from an agricultural GPN. Deans et al. (2017) found that MNCs with direct linkages to small-scale producers can provide them with support and training in achieving certification standards. Thus, further challenges to their inclusion can occur when some producers do not have access to the same linkages with MNCs.

The second challenge can occur when small-scale producers fail to access the resources they need to achieve capacity-building. Here, we refer to capacity-building as 'the ability of a community to adapt to challenges or opportunities and/or effect changes according to community goal' (Aref, 2011; p. 1179). For instance, Swaans et al. (2014) argue that collaborative arrangements are a potential means for producers to build capacity by exchanging knowledge, skills, capabilities and resources with other stakeholders. Boström et al. (2015) have shown that certification standards can help achieve capacity building efforts by providing investments or training for small-scale producers. Jena and Grote (2016) further echo this finding by demonstrating how certain certification initiatives such as Fair Trade play an important role in helping small-scale producers build capacity by providing services that eventually influence their value chain upgrading. These services could include financial and technical assistance, support in acquiring processing equipment, training courses and market information crucial to their inclusion in the GVC (Jena & Grote, 2016). Failure to access these resources can therefore prevent small-scale producers from being included in an agricultural GPN.

In the case of access to credits, de Janvry and Sadoulet (2019) found that financial services are not easily available to smallholder farmers. The authors have also found that access to credit is limited, therefore leading smallholders to self-finance or rely on informal lenders with excessively high interest rates (2019). Moreover, according to Deans et al. (2017), there are cases where MNCs collaborate directly with some small-scale producers and help provide them with credit to rehabilitate their farms. It is however unclear if all small-scale producers have access to a similar resource.

Inadequate distribution and communication infrastructure can also hamper upgrading processes and therefore prevent the inclusion of smallholders in a particular agricultural GPN. Another element that can constrain value chain upgrading is the level and availability of technology that can be used for production and distribution activities in the production network (Trienekens, 2011). Therefore, when these resources are not available, value chain upgrading processes cannot occur, which in turn prevents the inclusion of smallholders in agricultural GPNs (Trienekens, 2011). Additionally, and according to Trienekens (2011), market access is dependent on the technological capabilities and market knowledge of small-scale producers along with available infrastructures. Thus, to ensure their inclusion in a GPN, producers must have 'knowledge of and be willing to comply to demands in the end market' (Trienekens, 2011; p. 59). Failure to access these resources can therefore prevent producers from accessing lucrative markets and as such, lead to their exclusion from the GPN.

Finally, power imbalances along agricultural GPNs can be defined as 'an unequal sharing of benefits and risks, and companies unilaterally setting the terms of inclusion' (Ros-Tonen et al., 2019; p. 11). Furthermore, Bitzer and Glasbergen (2015), for example, argue that certification standards can have an adverse effect than that intended, where it could strengthen the position of already established large-scale producers or business. This could result in the marginalization of the small-scale producers these standards seek to include in the GPN (Bitzer & Glasbergen, 2015). Gender inequalities can also be a form of power imbalances. For instance, Ros-Tonen et al. (2019) argue that gender inequalities can be inscribed in either formal institutions such as laws and standards, or informal institutions including norms and attitudes, which can prevent women's inclusion into an agricultural GPN. *Table 4* below summarizes this typology of challenges:

Table 4: Synthesis inclusion challenges that emerge following VCD interventions.

Challenges to Inclusion	Definitions	Authors Consulted
Meeting certification standards	♦ Limited access or no access to information regarding certification procedures. ♦ Limited access to collaborative arrangements and actors that can help small producers meet certification standards. ♦ Certification costs can be too high for small producers to consistently meet.	Perez-Aleman & Sandilands, 2008; Deans et al., 2017).
Capacity Building	♦ Failure to access necessary resources to achieve capacity offered by certifications or through exchanging knowledges, skills capabilities and resources with other stakeholders.	Aref, 2011; Swaans et al., 2014; Jena & Grote, 2016.
Access to Credit	♦ Financial services are not easily available to small producers. ♦ Small producers typically self-finance or rely on informal lenders with high interest rates. ♦ Some producers may engage with MNCs to obtain credits but not all have access to this option.	Deans et al., 2017; Janvry & Sadoulet, 2019.
Technology and infrastructure access	♦ Inadequate distribution and communication infrastructure can impede inclusion of small producers. ♦ Low level and limited availability of technology used for production and distribution activities can also prevent producer inclusion in a GPN.	Trienekens, 2011.
Constraints in accessing markets	♦ Access to markets is dependent on technological capabilities, market knowledge and available infrastructures. Failure to access these resources can therefore exclude producers.	Trienekens, 2011.
Power Imbalances	♦ MNC activities may inadvertently lead to producer exclusion in an agricultural GPN. ♦ The rigorous and strict requirements to meet certification standards can be too challenging for most producers with limited capital to achieve.	Bitzer & Glasbergen, 2015; Ros-Tonen et al., 2019.

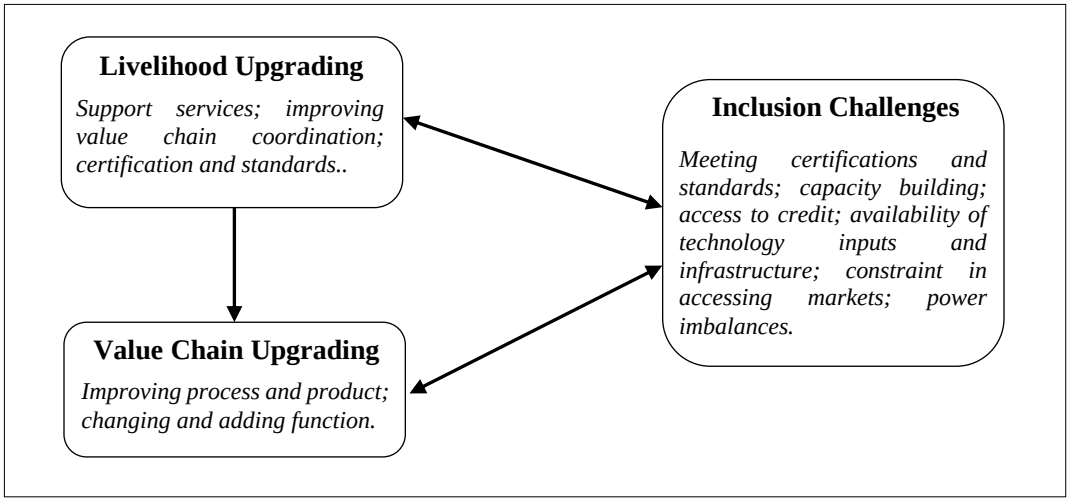
	○ This could further strengthen the position of already established large-scale producers and businesses. ♦ Gender inequalities.	

Source: Author's own elaboration.

2.3. Our proposed analytical framework

To conclude, we reflect on the theoretical knowledge we presented in the current chapter to build the analytical framework that will assist our research inquiry. In this respect, we borrow the concepts of IPs and value chain upgrading from the VCD literature to investigate how livelihood upgrading influences the inclusionary processes of smallholder producers in agricultural GPNs. More precisely, we investigate how livelihood upgrading, through the lens of IP dimensions, influences value chain upgrading processes of small producers. We then look at what challenges to the inclusion of these actors may emerge following the implementation of these upgrading strategies. Since VCD and GPN exclusively look at how either inclusion or exclusion occurs at the smallholder level, we believe borrowing the lens of inclusion challenges can offer additional insight into inclusionary processes of smallholders in agricultural GPNs. Figure *3* below illustrates the analytical framework that informs this study and the relationship underlying the key concepts we are utilizing:

Figure 3: Our analytical Framework



Source: Author's own elaboration

Chapter 3- Methodology

In the previous chapters, we positioned our research within relevant bodies of literature and constructed the conceptual framework that will guide our study. We now introduce the methodological approach we adopted in the realization of our study. As previously stated, our research aims to answer the following question: How do value chain development initiatives influence the livelihood upgrading and the inclusion of local communities in agricultural GPNs?

The objectives of our research lead us to adopt a qualitative naturalistic methodology (Egon Guba, 1978). As a case in point, qualitative inquiry contributes towards collecting and understanding the points of view of different individuals, observing and analyzing diverse behaviors in a particular context, and closely looking for the patterns that emerge from examining their inner feelings, beliefs, experiences, and actions (Strauss & Corbin, 1998; Patton, 2014). This in turn invaluably enables researchers to understand the functioning of a system of interest and simultaneously identify its unintended consequences or side effects (Patton, 2014). Qualitative inquiry is also essential to study areas that have not been thoroughly researched before (Strauss & Corbin, 1998) and is especially suited in cases where the research is attempting to analyze processes (Heyink & Tymstra, 1993; Doz, 2011). This is confirmed by Doz (2011) who describes qualitative research as an indispensable tool that facilitates the investigation of organizational processes along with how they unfold over time in a particular context.

Furthermore, our research objectives lead us to favor the use of a constructivist paradigm. As a case in point, constructivism is a qualitative approach that helps researchers interpret the meanings individuals put about the world they live in based on their social, cultural and historical perspectives (Creswell, 2009; 2014). It also allows researchers to address the different processes of interaction between individuals (Creswell, 2009). Our methodological approach is also longitudinal in nature (Pettigrew, 1990; Van de Ven, 1992) since it seeks to understand how a particular phenomenon evolves over time (Langley &Stensaker, 2012). Moreover, adopting a longitudinal dimension is particularly suited to the analysis of complex systems and allows

researchers to identify the effects of context where these systems are positioned on emerging outcomes (Burgelman, 2011).

Consequently, and in accordance with our research question and objectives, the following chapter will be divided as follows:

(1) We first present the research strategy we adopted, namely the case study method. We then introduce the case study we aim to investigate to answer our research question and present conclusive arguments to justify its relevance to our research.
(2) Then, we extensively outline the different data we collected on the field. Specifically, we present the field work itinerary we followed and show the methodological tools and techniques we adopted to collect our data.
(3) We dedicate the third section of this chapter to presenting the different analysis strategies we adopted to process the data we collected and coherently present our findings.
(4) We finish this chapter with outlining the quality criteria we followed from Shenton's (2004) framework to avow the trustworthiness and accuracy of our qualitative research.

3.1. Research strategy: the case study method

3.1.1. The case study method

The objectives of our study warrant the use of a case study methodology as an empirical inquiry tool that will assist us in answering our research question. As a case in point, as case study method is most suited as a research strategy when questions seek to understand the 'how' or 'why' of a particular issue (Ghauri, 2004). Moreover, Eisenhardt (1989) finds that this method is 'well-suited to new research areas or research areas for which existing theory seems inadequate' (pp. 548-549). It is also pertinent in international business research where data is collected in cross-cultural settings (Ghauri, 2004). More importantly, case studies are invaluable tools that allow the longitudinal weaving of a rich contextual description based on the lived experiences of individuals, which in turn is essential to deepen our understanding of human action (Gauri, 2004; Welch et al., 2011). In this sense, the case study method allows the processual investigation of a particular phenomenon from multiple perspectives and viewpoints (Ghauri, 2004).

As we previously highlighted, our research aims to understand a dynamic process and its evolution over time. To this end, we follow in the footsteps of Stake (2005) and adopt an 'instrumental' case study to answer our research question. An instrumental case study is primarily examined to provide insight and advance the understanding of a particular issue or phenomenon (Stake, 2005). Moreover, the instrumental method encourages the use of a purposive sampling process when selecting a case study (Stake, 2005). In essence, purposive sampling enables the researcher to select case studies that are 'information rich' and therefore provide important insight about the phenomenon at hand (Patton, 2002). Cases that are considered 'information rich' are 'those from which we can learn a great deal about issues of central importance to the purpose of the research' (Patton, 2002; p. 46). In this sense, the major rationale behind purposive sampling is to "select instances that are information rich with a view to answering the research question" (Flick, 2018; p. 88). Moreover, it is important to select a case study that best manifests our research objectives and that would allow us to perform an in-depth longitudinal examination of our phenomenon of interest (Patton, 2014).

3.1.2. Case justification

In keeping with the aforementioned criteria, the present research provides an in-depth analysis of the case study of small-scale producers[1] in the argan production network (APN) in Morocco. Specifically, we examine the emergence and evolution of the APN in the period between 1995 and 2015. This time period is relevant to our study as it covers a series of overlapping VCD interventions that were implemented in the argan region to connect the local small-scale producers to the global market. While the implementation of similar interventions is prevalent in rural landscapes in the Global South, we found the APN case study remarkable for multiple reasons.

[1] We adopt in this thesis the small-scale producers definition provided by FLOCERT, an international organization that implements the Fair-Trade certification: *'a small-scale producer is a producer who is not structurally dependent on permanent hired labour and who manages their production activity mainly with a family workforce. Most working time is spent on agricultural/artisanal activities on their own farms or in their own homes. This revenue represents the major part of their total income'*. See https://www.flocert.net/glossary/small-producers-small-scale-producers/.

On the one hand, we gravitated towards the case of the APN because of the rich context it provides to meet our research objectives. As we previously indicated, the APN emerged following the implementation of a series of overlapping VCD interventions led by various IPs over a span of thirty years. The IPs involved in the APN included a wide range of actors such as the Moroccan government, international organizations (IOs), non-governmental organizations (NGOs), and MNCs. Moreover, these VCD interventions were implemented from the top-down onto a historically configured terrain, where past governmental programs had already been enforced and effectively shaped both the cultural identities of local communities and the rural landscapes across the argan region. More so, the argan forest provided the means to the subsistence of the local population who relied on the argan tree's by-products for food, fodder and heating. In this sense, the VCD interventions intersected and became entangled with complex socio-economic systems that drastically influenced the subsequent evolution of the APN following its emergence.

Furthermore, the rationale behind the introduction of these interventions effectively establishes the APN as an interesting case study to assist us in answering our research question. As a case in point, the initial intervention programs were introduced to contribute towards the sustainable development of the argan forest. In fact, the local communities were considered by both government officials and IOs as the root cause behind the alarming degradation of the forest. Consequently, VCD interventions were introduced to influence the value chain upgrading of the local communities through the production of argan oil to integrate them in the global market and thus increase their income. In this sense, the IPs orchestrating these interventions believed that the local communities would have an economic incentive to preserve the forest and therefore cease what they considered 'harmful' practices that contributed towards its degradation.

In brief, the APN is currently considered a successful example of sustainable, rural and human development. Most interestingly, VCD interventions in the APN are considered an all-inclusive development-led achievement that benefits all the local communities in the argan region. This is primarily advertised by the national government and the IOs who participated in funding these VCD interventions. Involved MNCs also promote the social and environmental success of the APN as part of their CSR agendas. To this effect, the situated context of the APN case study

provides us with a rich backdrop to assist us with answering our research question. We will further explore the contextual setting of the APN in the following chapter.

On the other hand, the APN case study is understudied in the GPN. In fact, as identified in our literature review, a majority of studies that look at smallholder inclusion in GPNs do so by examining parallel agricultural commodities, most notably the coffee sector. Exceptions include le Polain de Waroux and Lambin (2012) and Robinson (2014; 2020). These studies however presented some limitations that our research aims to address. As a case in point, le Polain de Waroux and Lambin (2012) primarily focused on the impacts of the APN on the livelihoods of rural households in the argan region. In this context, the authors compared income and asset fluctuations over a span of 10 years to understand the effects of the APN on poverty alleviation in the region. More so, this study was limited in scope since the authors based their results on only five rural villages. More importantly, the authors' primary focus was to examine how these rural households diversify their livelihoods to supplement their income. Consequently, this study does not inform us on the inclusionary processes of the APN we aim to understand.

In his '*Biodiversity, Access and Benefit-Sharing'* book, Robinson (2014) dedicated a chapter to a particular case study within the APN. Specifically, Robinson (2014) presented the CSR arrangement between the L'Oréal multinational corporation (MNC) and Targanine, a small cooperative network that supplies them with argan by-products. The author further examined this CSR-based case study of the APN in his '*The Moroccan Argan Trade- Producer Networks and Human Bio-Geographies*' book (2020). However, while Robinson (2014; 2020) briefly examined the inclusion processes within his case study, the focus of his research remains narrow in scope. In fact, the L'Oréal-Targanine collaboration only represents a small production node within the APN. Therefore, Robinson's (2014; 2020) research also fails to provide insights into the overall inclusionary processes that occur within the APN.

Furthermore, the APN as a case study contributes towards addressing the limitations we identified in the literature review. For instance, its rich context allows the application of our conceptual framework. Specifically, IPs were implemented in the argan region as a livelihood trajectory mechanism to influence both the value chain upgrading and inclusion of small-scale producers into

the APN. As we indicated in the literature review, the GPN scholarship has so far failed to explore how the livelihood upgrading concept applies to agricultural contexts other than coffee. Therefore, our case study provides a theoretical basis to extend this area of investigation. Additionally, the overlapping nature of the IPs under study allows us to investigate their influence as a constellation on the APN, as opposed to the more common approach in the literature of viewing them as individual arrangements with minimal interaction and overall influence on the broader interventionist system. Moreover, the national government was actively involved in the implementation of VCD interventions in the argan region. The APN case study can thereby extend previous work on the role of governments in enabling the inclusion of small-scale producers following IP interventions. Finally, the longitudinal approach we adopt in our methodology allows us to critically examine the APN through an evolutionary perspective. In this way, we are able to heed Ponte and Grab's (2019) call for future research to apply an evolutionary approach to analyze GPNs. In brief, the conclusive discussion above outlines both the qualitative processes we adopt to guide our research and our rationale behind determining the APN as case study to answer our research question. The next section introduces the methods we adopted to collect our data in the field.

3.2. Data collection methods

It is important to note that we followed the constructivist approach of keeping a flexible design while constructing our case study. This allowed us to remain open to "*to adapting inquiry as understanding deepens and/or situations change; the research avoids getting locked into rigid designs that eliminate responsiveness and pursues new paths of discovery as they emerge*" (Patton, 2002; p. 40). In this sense, our study initially intended to investigate the local cooperatives and their influence on the empowerement of rural women in the argan industry. Specifically, we sought to investigate the emergence of these cooperatives and their role in influencing socio-economic shifts and empowerement dynamics in the argan region from a GPN and VCD perspective. However, in keeping with the constructive approach we adopted in our research design, our data collection influenced important alterations in our inquiry process (Yazan, 2015).

In fact, our first interview revealed insights we had not considered prior to arriving on the field and a more promising avenue for our research emerged. Specifically, we discovered that while

cooperatives were at the forefront of development projects within the argan region, a constellation of collaborative arrangements was operating behind the curtain and subsequently influenced how the APN evolved over time. We further learned about how these arrangements influenced the upgrading and inclusionary processes of small-scale producers in the argan region through the establishment of cooperatives. We consequently referred back to the literature to situate our new research direction within the GPN and VCD scholarship. We then identified the limits of both these bodies of literature which we used as a guide to update our interview questions.

Furthermore, we relied on data triangulation to produce a comprehensive and holistic portrait of our case study (Ghauri, 2004). Data triangulation refers to the use of various data sources and procedures to reduce the likelihood of misinterpretation (Ghauri, 2004). Additionally, triangulation helps researchers examine the phenomenon of interest from different perspectives (Ghauri, 2004). Therefore, to effectively answer our research question, we relied on conducting interviews with a diverse range of participants, carried out field observations, and gathered secondary data cognate to our research topic. In this section, we further discuss the different data collection methods we employed while conducting our research.

3.3.1. Selection of key informants

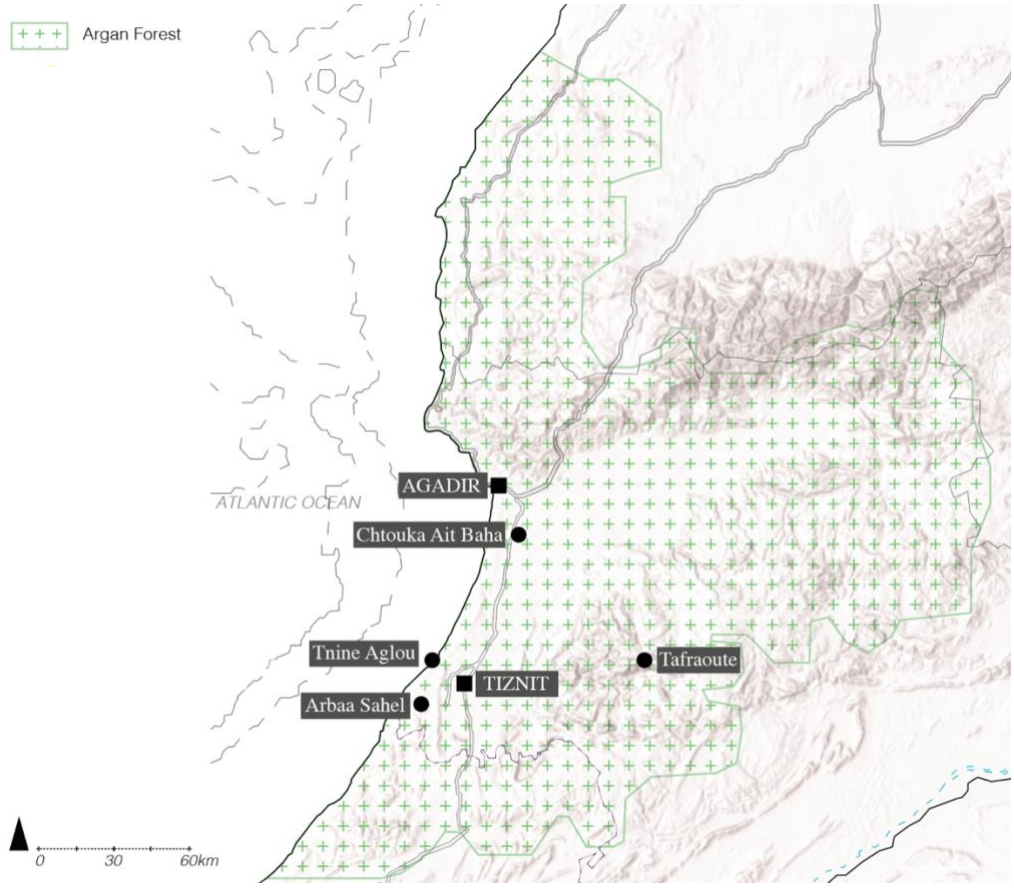
The first strategy we employed to collect our data was to select the participants we would interview in the field. To this end, we relied on the *chain sampling* strategy to locate information-rich key informants (Patton, 2014). We therefore initially met with our first informant, a professor at the University Mohammed V in Rabat, Morocco who specializes in rural development issues and who then referred us to two *key informants* (Patton, 2014) based in the argan region. We subsequently headed to the field and met with our key informants where we introduced ourselves and presented them with our research objectives. As a result, they provided us with a list of participants we could potentially interview, including their occupations and where we could meet them. The list comprised different actors of the APN, with a special focus on some small-scale producers involved in cooperatives. We also sought to interview government officials and development experts who were directly involved in its emergence and subsequent evolution. Following these selection criteria, we narrowed down the list of potential interview participants. Finally, we also

relied on *opportunity sampling* (Patton, 2014) on the field where numerous unanticipated opportunities have risen to conduct spontaneous interviews with additional participants who are also involved in the APN.

3.3.2. Field work itinerary

We designed our field work itinerary with the help of our first informant. In this respect, we planned our main stops around the locations of our key informants, while our meetings with the latter further expanded our field itinerary. Consequently, our field work was divided into two segments and took place between the 28th of January 2020 and the 7th of February 2020 in the argan region, which is located in the southwestern part of the country. Figure *4* below represents a map of the field itinerary we followed in our quest to answer our research question:

Figure 4: Field Itinerary



Source: Author's own elaboration

The first leg of our itinerary consisted of spending five days in the town of Tiznit. There, we met our first key informant and visited the small town of *Tafraout*, and the *Tnine Aglou* and *Arbaâ Sahel* villages where we conducted multiple interviews and field observations with local cooperative members and one government official. We carried out the latter half of our itinerary in the city of Agadir where we met our second key informant. While in Agadir, we conducted multiple interviews with representatives of large cooperative networks along with officials operating in local administrative and development agencies involved in the APN. Finally, we visited *Chtouka Ait Baha* village where we conducted an interview with the representatives of a local SME that specializes in the manufacture of argan oil. We also carried out a field observation to investigate how this SME influences the local community around it. We further discuss the interviews and field observations we conducted in the next sections.

3.3.3. Interviews

Seidman (2006) underlines the rationale behind interviewing in qualitative inquiry as a deep-rooted interest in "understanding the lived experience of other people and the meaning they make of that experience" (p. 9). Interviews in qualitative research are thus an essential to collect unique information based on the lived experiences of the participant (Stake, 2010). Furthermore, in accordance with the naturalistic inquiry strategy, "open-ended and conversation-like interviews" are a researcher's best allies when investigating the true nature of the problem they seek to investigate (Patton, 2002; p. 40). Consequently, we have opted for a semi-structured interview approach to investigate our present phenomenon.

Semi-structured interviews are "conversational and informal in tone" and allow for "an open response in the participants' own words rather than a 'yes or no' type answer" (Longhurst, 2016; p. 145). This category of interviews also allows a freer exchange between the interviewer and the participants (Dodge, 2011). This approach is therefore relevant to our study since we aim to investigate the personal experiences of the participants with the intent of reconstructing the evolutionary upgrading processes of the APN and the challenges of the inclusion perceived by the local small-scale producers. We consequently met each participant, introduced ourselves and our research, and asked for their consent to both conduct and audio-tape the interview. Moreover, we

kept with the naturalistic inquiry strategy and encouraged the participants to recreate the evolutionary process of the APN based on their lived experiences. Additionally, we used the interview questions as a guide to complement the participants' stories when we needed further clarification or details on specific events pertaining to our research. In this sense, we were able to construct a rich portrait of the APN and gained important insight into the upgrading and inclusionary processes of small-scale producers in the argan region.

Furthermore, our interviews were conducted in-person over a course of two weeks and dedicated between 40 and 120 minutes for each interview. An interview guide was built, based on our initial readings of the literature (annex A). We held the first interview in Rabat and conducted the remaining interviews in the field for a total of 15 interviews. Specifically, we conducted four interviews in local cooperatives, one interview with the spokesperson of a producer union representing 22 cooperatives, two interviews with government officials, three interviews with local development agencies and one interview with a professor of sociology who specializes in rural development. We also had the opportunity to conduct four informal interviews with people native to the argan region that we came across during our field work. In this regard, we spoke with the founder of an artisanal cooperative in *Tafraout*, a government official leading the rural development of their village of *Arbaâ Sahel*, our local guide in Tiznit and our key informant in Agadir. We essentially spoke about their perspectives on the APN and its influence on the local communities. These informal interviews were highly significant as they provided additional insight into the perceived realities of the APN by the local population. Furthermore, they allowed us to adapt questions for subsequent formal interviews. Table *5* illustrates the list of participants we interviewed to reconstruct the upgrading and inclusionary processes of small-scale producers in the APN:

Table 5: Summary of interviews

#	Interview Code	Interview Type	Participant Profile	Date and Location of Interview	Duration of Interview
1	N1	Formal	Professor at UM5 specializing in rural development	January 21st, 2020 – Rabat, Morocco.	130 min.

2	N2	Formal	President of the Sidi Ouagag Aglou cooperative.	January 28th, 2020 – Sidi Aglou village in Tiznit Province.	65 min.
3	N10	Formal	Founder of the family-based Tafsut cooperative.	January 28th, 2020 – Sidi Aglou village in Tiznit Province.	40 min.
4	N3	Formal	Member at Tazouknite cooperative.	January 29th, 2020 – Tafraout town in Tiznit province.	75 min.
5	N4	Formal	President and founder of Aoumerkt cooperative.	January 29th, 2020 – Tafraout town in Tiznit province.	60 min.
6	S12	Informal	Founder of an artisanal cooperative.	January 29th, 2020 – Tafraout town in the Tiznit province.	30 min
7	S13	Informal	Local guide in Tiznit with past experience with cooperatives specializing in producing medicinal plants and essential oils.	January 30th, 2020 – Town of Tiznit.	25 min
8	N5	Formal	Regional Director of the PNSSET.	January 30th, 2020 – Town of Tiznit	60 min.
9	S14	Informal	Government official leading rural development projects in their village.	February 1st, 2020– *Arbaâ Sahel* village in the Tiznit province.	40 min
10	S15	Informal	Key informant in Agadir who was a social activist and spearheaded many rural development projects in the region of Agadir.	February 2nd, 2020– city of Agadir.	25 min

11	N6	Formal	Representative of the UCFA Tissaliwine*.	February 3rd, 2020 – City of Agadir.	95 min.
12	N7	Formal	Expert of cooperative development at the OCD*.	February 5th, 2020 – City of Agadir.	90 min.
13	N8	Formal	Representative of the AMIGHA association*.	February 5th, 2020 – City of Agadir.	120 min.
14	N9	Formal	Administrative representatives of the SDA.	February 4th, 2020 – City of Agadir.	60 min.
15	N11	Formal	President and founder of EFAS.	February 6th, 2020 – Chtouka Ait Baha village.	60 min.

* We intentionally left out the actual hierarchical positions of these participants as an added cautionary step to preserve their anonymity.
Source: Author's own elaboration.

3.3.4. Observations

We conducted numerous non-participative observations and maintained a journal where we recorded notes by providing a date of entry, the activities encountered during the day and participant comments that were deemed vital to meet our research objectives. These field notes were maintained to complement the interviews and informal conversations we conducted. Sutton and Austin (2015) believe that field notes are essential in recording "impression, environmental contexts, behaviors and nonverbal cues" (p.227) that are difficult to capture during other sources of data collection. Field notes usually contain sensitive information and are extremely relevant to research (Sutton & Austin, 2015). They are also particularly essential in reporting situational factors that can further enrich the data analysis process (Sutton & Austin, 2015). Table *6* below synthesizes the main non-participative observations we led in the field.

Table 6: Summary of observations

Where we visited…	**When we visited…**	**Duration**	**Key insights we observed…**

Production facilities of Sidi Ouagag Aglou, Aoumerkt, and Tafsut cooperatives*.	January 28th-29th, 2020	15 min.	♦ The objective of our observation was to look at the machinery and equipment they have access to for argan oil production. We compared the sizes of their facilities, the diversity of their products, the type of machine they use (traditional/modern).
Tazouknite cooperative in Tafraout*.	January 29th, 2020.	20 min.	♦ Tazouknite is a remarkable example of how cooperatives can operate within the APN. The cooperative was built as a rural villa to make it an attractive spot for tourism. It also houses a small museum where cultural artifacts specific to the region are exhibited. ♦ We toured their agricultural fields. In addition to producing argan oil, the cooperative also cultivates other high demand plants such as moringa. They also cultivate irrigation-intensive plants and vegetables in a large greenhouse. ♦ We also toured the in-house facility where they produce argan oil. We took note of the machinery they use and the quality their extraction technology is.
The Argan forest	January 29th, 2020	30 min.	♦ We visited the forest outside of the town of Tafraout. This part of the forest specifically was used as a pilot test for a local reforestation project where a small field of plants were cultivated. ♦ We noted how none of the plants survived despite the introduction of an irrigation system. The plants were water intensive and the area is prone to droughts.
'EFAS' Argan SME in *Chtouka Ait Baha**.	February 6th, 2020.	60 min.	♦ We toured the production facility of the local SME. We noted their usage of highly advanced machinery to produce argan oil. Their equipment is designed to achieve economies of scale. We also saw how they store the argan raw material and the strict guidelines they follow to document its traceability. ♦ The SME operates symbiotically with the local community where it is located. Specifically, we observed how the SME interacted with the local

			community. Local women were involved in the production of argan oil. Annual revenues were invested in the local school and the improvement of the village infrastructure.

* These observations were conducted before the start of their corresponding interviews.
Source: Author's own elaboration.

3.3.5. Secondary data

As a last step in our data collection methodology, we had the opportunity to access public documents that we used to complement the information we obtained during our primary data collection and deepen our understanding of the phenomenon at hand. As a case in point, our informants gave us access to multiple state-sponsored documents that specifically indicate key dates of the APN's evolutionary process, how different IP interventions were implemented and the support services provided to help cooperatives meet certification standards. We also consulted project reports and corporate annual reports available online of some of the organizations involved in the construction of the APN. Furthermore, we examined several books, research papers published in professional journals, doctoral and master's theses to further complement the information we collected in our interviews. Finally, we consulted newspaper articles and watched some interviews and documentaries that present the APN and focus on how the local communities are integrated through argan cooperatives. Table *7* below illustrates the different types of documents we consulted to further our understanding of our research inquiry and complement the information we gathered in our interviews.

Table 7: Summary of secondary data

Document Type	**Number**
State-sponsored guides of IP interventions	11
Research papers	33

Book and book chapters	9
Dissertations	3
Reports (project reports and annual corporate reports)	7
Media (press articles, digital and written interviews, documentaries)	14
TOTAL	**77**

Source: Author's own elaboration

3.4. Data analysis

Reay et al., (2019) state that researchers employing a processual perspective are more likely to adopt an analytical approach that allows for 'depth and narrative' (p. 213). To this effect, we combined three analytical strategies to ensure we fully capture the complexity of the interactives processes found in our case study.

The first step in the analysis was consistent with a narrative strategy (Langley, 1999). The narrative strategy is especially relevant in process research and involves the construction of a detailed story from the raw collected data (Langley, 1999). This strategy further helps achieve a deeper understanding of organizational processes by providing 'vicarious experiences of a real setting in all its richness and complexity' (Langley, 1999; p. 695). Moreover, the narrative strategy is a 'data organization device' as it helps integrate various data sources (Langley, 1999; p.695) and therefore serves as a robust foundation for further analysis (Eisenhardt, 1989). In this respect, we adopted the conceptual framework we developed in the previous chapter and started our analysis by reconstructing the longitudinal narrative of the different livelihood upgrading trajectories that were implemented along the APN and the value chain upgrading processes they influenced. We further complemented the APN's evolutionary narrative by reconstructing the challenges to the inclusion

of small-scale producers that emerged following these upgrading interventions. The main source of information we used to reconstruct the evolutionary processes of the APN was the interviews we conducted, although we supplemented this collection method with our field notes and secondary data.

Next, the longitudinal nature of our research led us to engage in a temporal bracketing analytical strategy (Langley, 1999). More importantly, temporal bracketing greatly complements the narrative strategy. In fact, relying on the narrative strategy alone may lead to an 'idiosyncratic story' and a rather thin theoretical contribution (Langley, 1999; p. 697). Therefore, combining these strategies can be an effective way to conduct a robust analysis. Within the temporal bracketing approach, findings are structured according to specific phases along a chronological timeline 'to evidence how specific dynamics take place within a given moment and how they evolve across time' (Reay et al., 2019; p. 208). Furthermore, temporal bracketing shows data as part of ongoing events and highlights the richness of change within a particular context (Reay et al., 2019). Breaking down analysis into successive temporal brackets also allows a more in-depth examination of how 'iterative actions taken during one period lead over time to changes in the context that will affect action in subsequent periods' (Langley & Abdallah, 2015; p. 155). In this sense, phases in temporal bracketing become comparative units of analysis (Lawrence, 2017). Also, relevant temporal bracketing phases are defined by establishing not only a 'continuity in the context and actions being pursued within them', but also 'discontinuities at their frontiers' and therefore become comparative units of analysis (Lawrence, 2017; p. 1778).

Therefore, we followed the analytical guidelines of the temporal approach and identified the 'iterative actions' in our case study as the sequential implementation of livelihood upgrading trajectories along the APN. Our case study covers exactly five sequential livelihood upgrading trajectories from 1995 to 2015 where some shared similar objectives. As a case in point, the first two trajectories aimed to create a previously inexistent global market for argan oil and train small-scale producers to access different market routes to increase their revenues. The next two trajectories aimed to strengthen argan small-scale-producers' position in the global market by transforming the emerging APN into an export-oriented industry. The last trajectory we examine was implemented to promote the authenticity of the argan oil produced by small-scale producers

in the global market. Consequently, we identified the 'discontinuity at the frontiers' as where a shared trajectory objective ends and the next one begins. In this sense, we constructed three temporal phases that we will use to conduct a deeper analysis of our data:

(1) *Phase 1*: Emergence of the APN (1995-2002)
(2) *Phase 2*: Attempt at export market integration (2003-2008)
(3) *Phase 3*: Pursuit of authenticity and proliferation of actors in the APN (2009-2015).

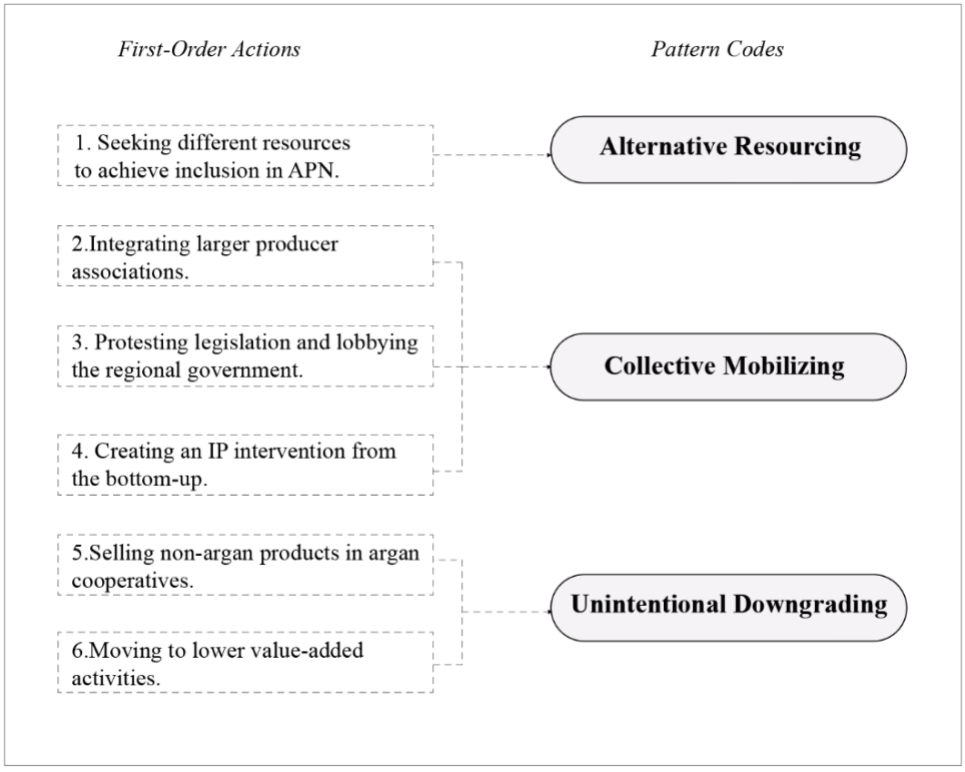
In sum, we simultaneously engaged in both a narrative strategy and temporal bracketing strategy to present our findings. In this respect, the three phases we constructed will serve as comparative units of analysis for the replication of our conceptual framework (Langley, 1999). In doing this iterative and multi-level process, we aim to capture the complex interactions in our case study that a linear narrative analysis alone could not produce. We will now look at how we used coding to effectively organize our data.

As a third step in our analysis, we interwove our analytical process strategies with the coding method in order to organize the large amount of data we collected. In this respect, coding allowed us to methodically create our narrative, preserve the richness of our data and reduce the risk of accidentally excluding meaningful material relevant to our research question. Following Saldana's (2016) approach, we employed a hybrid coding scheme to suit the particular needs and disciplinary concerns of our research. To this effect, we first started by developing a list of deductive *structural codes* congruent with our conceptual framework to recreate a coherent narrative of the APN's evolutionary process from the theoretical lenses of upgrading and inclusion challenges. We also implemented an *in-vivo coding* inductive strategy to our interview transcripts to highlight the language used by our informants and thereby better capture the meanings inherent in their experiences and worldviews (Saldana, 2016).

The sequential combination of these two coding methods as a *first cycle-process* gave us a richer perspective and understanding of the lived experiences of the informants we interviewed. More importantly, applying an in-vivo approach to our data units allowed us to detect a recurring pattern we hadn't previously considered (Saldana, 2016). As a case in point, we learned through in-vivo that our informants were revealing actions performed by small-scale producers to remain included

in the APN, something that we had not initially envisioned in our conceptual framework. Following this trail, we recoded our secondary data in search of this emerging pattern and subsequently engaged in in-vivo and process coding until we were left with a comprehensive first-order list of small-scale producers' actions. We then moved our first-order categories to a *second-cycle process* and clustered together similar forms to create specific *pattern codes*. Pattern codes serve two important functions for our research. First, they allowed us to pull together the large set of information on small-scale producer actions into more meaningful units of analysis (Miles et al., 2020). Second, the pattern codes we developed allowed us to gain a deeper understanding of the dynamic interactions occurring within the APN (Miles et al., 2020). Specifically, the pattern codes that emerged from our data are our analytical proposal and we will use them to fit the needs of our research (Miles et al., 2020). In this respect, we will embed the pattern codes in the analysis of each of the temporal phases we constructed and will later enrich our conceptual framework. Figure *5* below illustrates the first-order actions and pattern codes that emerged inductively from the coding of our data:

Figure 5: Pattern coding structure



Source: Author's own elaboration.

3.5. Quality criteria

To ensure the quality and trustworthiness of our qualitative research, we turn to the framework provided by Shenton (2014). First, we verify the **credibility** of our research. Credibility verification refers to the extent in which a qualitative study is consistent with reality and as such is one of the most important factors to establish the trustworthiness of a qualitative research (Shenton, 2004). To ensure the credibility of a qualitative study, adopting appropriate well recognized research methods is key. As a case in point, we followed the data collection guidelines provided by Patton (2002; 2014) and Stake (1994;1995; 2005) who are well established qualitative researchers. Similarly, we adopted data analysis methods that have been rigorously tested in the past. For instance, we adopted the narrative and temporal bracketing approaches (Langley, 1999) which have been heavily researched by process theorists (Langley, 2007; Fenton and Langley, 2011; Langley & Abdallah, 2015). Furthermore, we relied on a triangulation method to reconstruct our process of interest. In this respect, we maintained a diverse informant pool, conducted field observations where we kept a detailed journal and collected data from various secondary sources. Additionally, we used random sampling when we conducted our spontaneous informal interviews. This random approach is essential to avoid researcher bias in selecting interview participants. Moreover, we reviewed the data we collected against the available studies that investigated small-scale producers of the APN from a development perspective (Damamme, 2005; Aubert et al., 2015). Despite our divergent research inquiries, these studies were nonetheless instrumental in confirming the data we collected since they also conducted field investigations and interviewed various actors involved in the APN. Last, we rely on providing a thick description of the phenomenon under scrutiny (Shenton, 2004). In this respect, we build a thorough and detailed reconstruction of our case study. However, we also provide a rich contextual setting of the APN before presenting our findings to further situate our research and show its importance and validity.

Second, we verify the **transferability** of our research. The theoretical foundation of our research is based on an analytical framework we developed from insights gathered from two cognate literatures. As previously stated, our primary concern lies in investigating how livelihood upgrading interventions influence the inclusionary processes of smallholders in agricultural GPNs.

To this effect, we believe our framework can be applied to critically examine other agricultural GPNs that have experienced an overlapping interventionist system and thus gain a deeper understanding of the inclusionary processes that emerge within these contexts. However, results may differ since rural landscapes in agricultural GPNs have different institutional, cultural, social economic contexts that strongly influence findings. In sum, our study can be replicated to further our understanding of smallholder inclusionary processes in other agricultural GPNs. However, we can't form any generalizations with our results since the ones that emerged from our analysis are specific to the argan region.

Third, we verify the **dependability** of our research. Dependability refers to what extent we would obtain similar results if we were to repeat our research in the same context while using the same data collection methodology and analysis (Shenton, 2004). While the changing nature of phenomena that require adopting a qualitative inquiry perspective can make the verification of dependability challenging, we nonetheless followed a rigorous procedure to address this issue. As a case in point, we presented thorough descriptions of our research design and strategies, data collection methods and analytical interpretation of our data. We also justified each of our methodological choices throughout the present chapter. Last, we dedicated a section in the discussion chapter to present the limitations we encountered in conducting our research.

We last verify the **confirmability** of our research. Specifically, confirmability ensures the objectivity of the researcher throughout their research. Therefore, to reduce the effect of investigator bias, we relied on the aforementioned triangulation method to investigate multiple perspectives of our case study. Furthermore, we remained open-minded to any changes that emerged in our research inquiry and design and as such followed the trail our data picked up. Finally, our detailed methodological descriptions follow a step-by-step of our overall research procedure from start to finish.

3.6. Ethical considerations

It is important to note that we rigorously followed the ethical code of conduct put in place by HEC Montréal when collecting data from all our interview participants. As a case in point, we submitted the design of our research to the Research Ethics Board of HEC Montréal for approval. We also applied for the renewal of our ethics approbation before its expiration.

We followed a general procedure at the start of each semi-structured interview where we introduced ourselves as a research student to establish a trust rapport, and briefly explained the purpose of our research. Before proceeding with interview questions, we presented each participant with a consent form -written or verbal- and asked for their individual permission to take notes and record the conversation as a means to ensure the validity of our data. Confidentiality was also ensured in the cases where participants wished to remain anonymous. The participants were also be given the opportunity to ask for clarification whenever needed.

Moreover, since informal interviews were spontaneous and unplanned conversations, we couldn't ask our collocutors to sign the consent form we prepared in advance. We did however ask for their consent to use the insights they provided at the end of each conversation. Moreover, we jotted down their main points as part of our field notes and we didn't record these conversations. Finally, due to the confidential nature of our data, we followed HEC Montréal's ethics guidelines and ensured they were secured in a similar manner

Chapter 4 – Contextual Setting

> "There is a tree called "Ardjân" (argan) which yields a fruit called Amazigh almond and grows in the land of the Hahâ and Regraga (large tribes living directly in the argan regions). Herdjân oil (argan oil), which the Amazigh of Morocco refer to as Ardjân or argân is held in high esteem by these populations" (Ibn El Beïthar, 1219) [2].

This excerpt offers but a small glimpse into the true importance the argan tree as a fundamental pillar of the cultural identity of the Amazigh people for centuries. In fact, the symbiotic relationship linking the argan tree with the Amazigh community is a testament to how rural populations in the past have successfully interacted with their surrounding environment and sustainably utilized their local ecological knowledge to provide for their daily subsistence. The present chapter therefore serves an important function. In what follows, we present in the first section the socio-cultural context of the argan forest. Here, we focus on the ancestral practices that governed the argan forest. In the second section, we track down the overlapping government interventions that have been implemented in the argan region. These interventions have had a direct hand in reconfiguring the argan region into the complex rural production landscape it is today. In this sense, this section sets the scene for understanding the local context of our case study and the underlying rationale behind the implementation of the livelihood upgrading strategies we will explore in the following chapter.

4.1. Brief overview of the argan forest

The argan forest offers a rich biodiversity (Karmaoui, 2016) and shelters around 1200 fauna and flora species, 140 of which are endemic to the ecoregion (Lybbert et al., 2011). one of which being the argan tree. In fact, the argan tree grows exclusively in Morocco - and holds a symbolic cultural importance to the local populations. The argan forest extends over 800,000 ha (Charrouf & Guillaume, 2007) making it the second largest woodland area in Morocco (Charrouf, 2002). It

[2] Translated from French. Original quote: "L'arbre appelé Ardjân qui donne un fruit appelé amande berbère qui pousse dans le pays des Hahâ et des Regraga. L'huile de herdjân que les berbères du Maroc appellent Ardjân ou bien encore argân est très estimée par les habitants." as cited by Nouaïm, 2005; p.20)

primarily covers the provinces of Agadir, Taroudant, Essaouira and Tiznit located within the *Souss-Massa* region (Lybbert et al., 2003).

The Argan tree *"Argania Spinosa"* thrives over a lifespan that can exceed 200 years (Charrouf & Guillaume, 2007). According to Le Polain de Waroux and Chiche (2013), the argan tree's bark can grow upwards to 5m while its crown can reach around 12m high. It can withstand temperatures ranging from 3 to 50 ºC and requires minimal rain. It grows naturally in the wild (Charrouf & Guillaume, 2007) where its reproduction can either be vegetative or through the germination of its seeds (Le Polain de Warroux and Chiche, 2013). Moreover, it can grow on poor soils and have a deep-rooted system allowing them to thrive in the semi-arid ecosystem that characterizes the region (Lybbert et al., 2003; Le Polain De Warroux and Chiche, 2013; Charrouf and Guillaume, 2007). Its ecological value is also notable due to the tree's exceptional ability to withstand severe droughts that the region is often prone to (Bani-Aameur, 2002). This is due to the species' deep-rooted system that enables the tree to exploit the available soil moisture while shedding its foliage in order to limit leaf transpiration (Charrouf & Guillaume, 2011). This system allows the tree to act as a natural barrier against the expansion of desertification in the region, thus making it an essential agent in the regional ecosystem of the Souss-Massa valley (Charrouf & Guillaume, 2007); (Lybbert et al., 2003).

In addition to its environmental importance, the argan tree serves multiple socio-economic benefits to the rural population located in the region. According to Charrouf and Guillaume (2011), the argan forest ensures the sustenance of 2 million people who use the tree as food and revenue income asset. As a case in point, the argan tree provides the local population with numerous services which include the provision of wood as a fuel and carpentry source, along with leaves and fruits as livestock feed (Aboudrare et al., 2009). More importantly, the argan tree provides the kernels that are used to extract argan oil, which due to recent developments, has become one of the most expensive oils in the world (Lybbert et al., 2003; Aboudrare et al., 2009). We further elaborate on the importance of argan oil for the local communities in the next sub-section.

4.2. The argan forest and its people

4.2.1. The local knowledge of forest resources' management

In the argan region, the local populations heavily relied on an agropastoral system they established in the argan forest for subsistence (Romagny et al., 2008). However, these populations followed several rules and practices by ecological knowledge that has been gathered over the centuries to ensure the sustainable usage of the forest's resources (Aubert et al., 2009). The terms of these rules were in turn defined by village assemblies who are locally known as '*j'maâ*' and determined the amounts of fodder, firewood and timber that can be cut by a family along with their cost depending on weather conditions (drought, severe storms…) (Aubert et al., 2009). One of these rules enforced by the village assemblies was called '*agdal*' and determined the allocation and rights of access to forest resources throughout the year (Auclair, 2005). Put simply, the practice of the agdal rule enabled the alternance of each village's exploitation of a particular segment of the forest that was ancestrally allocated to them. This way, it determined periods where access was granted and periods where usage of the specified land under agdal rule would temporarily be prohibited (Romagny et al., 2008). Sometimes, certain parts of the forest under agdal would be closed off for years (Auclair, 2005). This action is referred to as a '*mise en défense"* (Romagny et al., 2008) of resources, and was put in place to avoid an overexploitation of the argan forest. The enforcement of the agdal rule thus ensured the long-term preservation of the forest resources as they played a central role in the Amazigh society. Furthermore, the agdal rule determined the collective practice of argan fruits harvest. In the following sub-section, we present the local practices centered around the harvest season and ancestral extraction of argan oil.

4.2.3. Ancestral extraction process of argan oil[3]

The argan tree starts producing its much-awaited fruits around springtime, marking the start of the *moussem*** season. Designated town criers travel around local *souks* and villages to publicly announce the official demarcation of *agdals* (Nouaim, 2005; Faouzi, 2018). These distinguished land parcels which are located on *melk* properties are temporarily fenced off using jujube or argan tree branches as a sign to prohibit grazing during the fruit ripening process (Nouaim, 2005). Once

[3] To reconstruct the tale of argan oil's ancestral extraction, we leaned on our interviews with N2, N3 and N6. We further complemented their retellings by cross-referencing with the following secondary sources: Nouaim, 2005, Faouzi, 2018, Simenel, 2011 and Simenel et al., 2014 to verify the accuracy of the extraction facts we gathered on the field.

ripe, the fruit *"affiyache"* takes the shape of a date and naturally falls down the trees where its collective gathering can now commence. Thereafter, local populations, flocked together and trudged along through the hilly roads of their village in order to reach their respective *agdals*. They were each tasked with collecting the fruits in large woven palm baskets and carry them back to their households, usually on the back of a mule waiting right outside of the fence (Nouaim, 2005). Once dwellers with direct usufructuary rights are done with the collecting process, families with no proprietary rights on a tree were then allowed into the agdal in order to collect any remaining fruits (Nouaim, 2005; Faouzi, 2018). The rules of agdal further prohibited the prodding of argan branches with a stick in to topple the fruits still attached to the tree. This ensured its protection from the perpetual damage that could be caused by aggressive prodding. Agdal also ensured that not all fruits be picked up by the local communities so as to encourage the natural regeneration of the argan trees (Faouzi, 2018). Back at home, each family proceeded to dry the fruits under the sunlight for a few days and stocked away a part of their harvest for the upcoming years. Seeing as the region is prone to droughts, this task was necessary for local communities to retain control over a continuous supply of argan fruits, especially in years where trees are unable to yield fruits due to the lack of rain.

Argan oil extraction presented an opportunity for local women to gather around a communal space and work together in a social environment. Moreover, the tasks necessary for a successful extraction were divided amongst the women depending on their competence. To this effect, dried fruits were first crushed on a flat-surfaced rock in order to separate the flesh from the argan shells. The shells were collected and then appointed to the older women in the group, for they have mastered the art of crushing argan pits. This task was carried out by pounding on the shells against a large rock using a smaller rock that was maneuvered by hand, revealing a concealed almond-like kernel. This was a strenuous step and it wasn't unusual for some women to get hurt, especially if they lacked the experience. Soon afterwards, the women would roast the kernels on a terracotta dish placed in the kitchen hearth. Once roasted, the kernels were grinded in a sort of hand-operated stone mill locally known as the *Rh'a* (Nouaim, 2005) resulting in a thick *amlou* paste that flows into a recipient positioned right under the mill. Finally, one of the women would add some lukewarm water onto the paste and painstakingly knead into it until it becomes clumpy and argan oil gradually separates and rises to the top of the recipient. The clumps are then pressed together

to extract any remaining oil they might contain and become the *tazgmmut* (Nouaim, 2005). It takes several years for young women to master this last task as it is imperative to know the exact quantity of water to be added along with the specific kneading technique necessary to a proper extraction.

The extraction process actually extended over multiple days as each step required a great amount of effort to be carried out by women. Moreover, around 100 kg of argan fruits were needed in order to extract one liter of argan oil (Charrouf & Guillaume, 2011). Although it was a strenuous process, Amazigh women passed the time by chanting together and exchanged anecdotes or gossiped about other members of their communities (Nouaim, 2005). While men looked after the argan trees in the field, argan oil extraction was a process that was exclusively reserved for women. It was also considered a significant, cultural rite of passage for young women as learning the craftsmanship involved in the process marked their path from childhood to womanhood. Young brides were actually offered a Rh'a as a wedding present (Nouaim, 2005; Simenel et al., 2014). Finally, women got together and extracted argan oil after lunch was served and would work collectively until sunset. They would then meet again the following day and pick up where they left off. We further elaborate on the ancestral usages of argan oil in the next sub-section.

4.2.3. Ancestral usage of argan oil

Argan oil has held a significant place in the local cuisine and has been a staple of the Amazigh people's culture for centuries. Its extraction required a particular craftsmanship that was passed down from one generation to another. Furthermore, the virtues of argan oil aren't limited to its reputation in the local cuisine. In fact, Amazigh women have used it as a cosmetic agent as well, where they traditionally applied the oil directly to their skin and scalp as a beautifying and hydrating agent (Simenel et al., 2014).

In addition to its culinary and cosmetic usage, argan oil was also reputed for its medicinal virtues where it was used by Amazigh communities as a natural ointment that would cure numerous ailments such as burn injuries. It was also believed to combat acne and help fade topical scars (Charrouf, 2007). Interestingly, Jean-Léon l'Africain, a North African explorer reported in 1515 that argan oil was also used as a fuel source in order to ignite domestic gas lamps, a tradition that persevered until the recent introduction of electricity in rural Morocco (Nouaim, 2005).

Local communities' dependence on the tree exceeded that of argan oil extraction. For instance, the remaining argan fruit pulp *"alig"* and the resulting pressed cake[4] *"tazgmmut"* from grinding argan kernels were repurposed as livestock fodder (Simenel et al., 2014). Argan leaves were also used as an important source of forage for the herds (Nouaim, 2005). Furthermore, the tree's wood is a powerful combustible that has been reputed for its sturdy and robust nature for centuries (Nouaim, 2005). It was thus relied upon by local communities for heating purposes and pottery making (de Ponteves et al., 1990). Finally, the shards of argan shells *"irgn"* where argan kernels were enclosed were also used as a domestic combustible (de Ponteves et al., 1990).

Finally, the argan tree is at the heart of folkloric tales, rituals and chants within Amazigh communities, which have been passed down through oral tradition (Simenel 2011). The longevity of the argan forest and its ability to withstand severe climate fluctuations gained the admiration of the ancestors of the Amazigh who viewed the tree as a symbol of eternity and bestowed a sense of sacredness upon it which transcended the flow of time (Nouaim, 2005). This spiritual value was further evident in the ancestral customs of the region where numerous centenary argan trees have been named after sacred marabouts and are at the heart of religious festivals (Nouaïm, 2005; Simenel, 2011; Le Polain De Warroux and Lambin, 2012). As such, the argan tree was a symbolic social node that connected members of the local communities and was attached to ancestral myths and beliefs that effortlessly captured the cultural identity of the region (Nouaim, 2005).

4.3. Invasive interventions in the argan forest

We now turn to exploring the multiple government interventions that were implemented in the argan region since the colonial era. However, it is important to first briefly overview the political context of the country as it set the scene to the upcoming colonial legislations that have since reconfigured the rural terrain. As a case in point, the primary political organization of the Moroccan kingdom has long been dominated by a dichotomy that separated the *'Makhzen'* (government) and the *'Bled Siba'* (land of dissidence) (Pennell, 1991). The *'Makhzen'* refers to the central authority that is the Moroccan state, which laid claim to the plains that stretched along the Atlantic coast and central Morocco (Pennell, 1991). The 'Bled Siba' on the opposite hand was

[4] Also known as tourteau in French

viewed upon by the state as a "land of insolence" and was populated by the endogenous populations who have historically rejected the authority of the central government (Pennell, 1991). They were mainly located along mountainous and desert terrain (Gellner, 1962) where the Amazigh people played a fierce role in opposing the central authority of the state. This opposition mainly stemmed from the fact that the latter lands were 'tax-resisting' areas (Gellner, 1962) and followed a different socio-political structure. Furthermore, unlike the dynastic authoritarian regime dictated by the *Makhzen*, these populations were organized following a segmentary tribal system, which ensured a democratic voice was lent for each one of these local communities (Pennell, 1991). Mostly, they relied on self-governance and operated autonomously with little to no intervention from the state (Pennell, 1991).

4.3.1. Colonial interventions in the management of Moroccan forests

The conflict between the *Makhzen* and the *Siba* lasted until the implementation of the French Protectorate in 1912 (Wyrtzen, 2011), which had had a direct impact on the land management of the argan forest. As a case in point, to gain access to the lands of the rural populations located in the 'siba' regions, the newly established colonial administration used the dichotomy between both political groups to justify the need to 'intervene on behalf of the Moroccan Sultan' (Wyrtzen, 2011; p. 229). It was therefore within this political context that the colonial administration started enacting environmental legislations as a means to legitimately confiscate forest lands away from the local populations and convert them into agricultural lands for their benefit (Davis, 2000). To this effect, the traditional practices of endogenous populations were criminalized to justify the need for the pacification[5] of was referred to in the colonial discourse as 'unruly tribes' and gain control of the land (Davis, 2004; Romagny et al., 2008).

To achieve this aim, the colonial administration constructed the narrative that the '*Moroccan landscape, especially in areas deemed forest land, was severely degraded and deforested by overgrazing'* (Davis, 2000; p.191). Armed with the inaccurate narrative that endogenous practices

[5] Pacification was a large military campaign that occurred incrementally from 1912 to 1934 and was led by the colonial administration to gain access and control of the lands that didn't fall within the jurisdiction of the Makhzen (Romagny, Auclair and Elgueroua, 2008).

have singlehandedly led to the environmental destruction of Southwestern Moroccan forests (including the argan forest), the colonial administration implemented new legislations that sought to restore the landscape to its 'former' glory (Davis, 2007). Although these forests were adapted to the semi-arid climate of the region and the resource uses and grazing practices of the local population, the colonial administration set out to suppress any local practices that were deemed 'destructive' to the fabricated image of a lush green forest (Davis, 2000). Consequently, the colonial intervention implemented a policy of active reforestation in semi-arid regions (Davis, 2004), followed by a series of forest codes adapted directly from already established environmental French legislation (Boulhol, 1952).

The first forest code to be established in Morocco was the 'dahir' implemented in 1917 (Boulhol, 1952). It sought to provide a legal framework to preserve the environment of Morocco, while providing 'appropriate' methods to exploit forest resources (Boulhol, 1952). More importantly, it was used to expropriate land into being registered under state domain and sought to 'sedentarize' the semi-nomadic mountain tribes (Perry, 2020). An important aspect of this decree is that it implemented new regulations regarding grazing practices (Chamikh et al., 2014). This curtailed the rights of use of the endogenous populations by imposing strict changes in the movements of pastoralists (Perry, 2020). Some of these changes entailed paying for grazing permits while providing detailed records of livestock and the people moving them before permission for migration can be granted (Davis, 2000). Moreover, this decree provided regulations that congregated all the ecologically diverse Moroccan forests under a singular code (Chamikh et al., 2014) and as such failed to consider the various environmental and ethnographic characteristics of each forest.

Additionally, a regulation in the forest code of 1917 prohibited grazing practices in Moroccan forests (Boulhol, 1952), under the aforementioned premise that they contributed to the degradation of the already 'suffering' landscape. However, in the case of the argan forest and the local populations centered around it, caprine livestock breeding was the basis of the agropastoral system (Bourbouze & El Aïch, 2005). Consequently, the colonial administration noticed the recurring occurrence of infractions. Most times, the Amazigh tribes "failed" to provide the administrative fees imposed by the colonists nor "respected" the recently established grazing requirements

(Chamikh et al., 2014). To this end, the colonial administration issued a revised dahir in 1925 that specifically touches the clear delimitation and the protection of the argan forest (Boulhol, 1952) from what they considered abusive exploitation (Chamikh et al., 2014). The 1925 Dahir specified the rights of use accorded to the local populations centered around the argan forest, which include collecting dead wood, fruit picking, livestock grazing and chopping of firewood (4th of March 1925 dahir text). Ironically, the rapid development of urban cities during the colonial era and the shortage of fuel in 1917 led to the destruction of thousands of hectares of argan lands (De Ponteves et al., 1990). Also, the increased demand for fuel during the first World War intensified pressure on the forest due to the exceptional quality and high calorific value of the argan tree's wood where it was exported to France and Spain to respond to the shortage of fuel (Nouaim, 2005). While the 1925 Dahir allowed some respite to the argan forest from excessive logging activities, the urgent need for wood to make charcoal however grew during World War II where the colonial administration temporarily lifted the access ban to the forest to harvest wood and export it to France (Nouaim, 2005) which further accentuated the forest's degradation. The colonial period culminated with an increase in 'orderly, homogenized landscapes of modernized agriculture' (Davis, 2000; p. 192), which served as a basis for modern agriculture in the post-independence environment and the near-complete sedentarization of grazing practices (Davis, 2000) that is still observed today.

4.3.2. Strategies of the post-independence government in managing the argan forest

The argan forest suffered further depletion following the country's independence from the colonial administration. While already struggling in its shift from a colonial administration to the establishment of an independent government governed by the royal family in the 1960s, Morocco has accumulated a tremendous amount of debt in the following decade (Yagoubi, 2015). This debt resulted from the country's overinvestment in state security following the attempted military coups of 1971 and 1972 and was further exacerbated by the ensuing global oil crisis of 1973 (Yagoubi, 2015). Unable to pay off the debt, the post-independence Moroccan government turned to the International Monetary Fund (IMF) and the World Bank who imposed that the country undergoes a Structural Adjustment Program (SAP) in 1983 (Kydd & Thoyer, 1992). The adoption of the program also meant that Morocco had to adjust their economic policy and shift it towards the liberalization and privatization of their market (Dasgupta, 1997).

An important strategy the country adopted as part of their SAP requirements was a major reform of the agricultural sector (El-Neggar, 1987). This implied that the sector would be marked by a high level of state intervention (El-Neggar, 1987) and would thereafter shift from a traditional subsistence-based agriculture to a modern agricultural system oriented towards export (El-Neggar, 1987). Thereafter, the argan forest became one of multiple interest sites where intense greenhouse cultivation of vegetables destined for export was encouraged, which had a nefarious impact on the affected areas (Nouaim, 2005). Since the argan forest was managed by the Regional Water and Forest Administration (RWFA), a new forest legislation was implemented in the same year as the SAP which allows usufructuary right holders who own private lands to convert some plots into agricultural parcels (Nouaim, 2005). Although part of the legislation proclaims the importance of preserving the argan trees in those parcels and requires that more trees are to be planted in parcels with a low tree density, this requirement was rarely met (Nouaim, 2005). This is due to the fact that usufructuary landowners would sometimes rent their parcels to investors, who, keen to generate high profits, rarely had the preservation of the tree in mind (Nouaim, 2005). This was particularly nefarious to the semi-arid and drought-prone endemic ecosystem since the primary produce that were imposed at the time were tomatoes and citrus cultivations, which demanded intensive irrigation requirements (Nouaim, 2005). It is important to note however that the participation of the rural populations in the degradation of the forest hasn't been recorded until its degradation had already become alarming during the colonial administration (de Ponteves et al., 1990). Because of the severe degradation, there were low resources in the region, and the degradation of the soil led to reduced harvest as well (Nouaim, 2005).

4.3.3. Scientific research and the argan forest

In the meantime, Laboratoires Pierre Fabre whose business activity is focused on discovering and researching "new natural-origin key ingredients" for pharmaceuticals and cosmetics were the first multinational company to research and use argan oil in their cosmetic products and promote it in international markets in 1983 (Galénic) [Pierre Fabre website]. In an interview with Bernard Fabre, the phytochemistry expert and head of the dermo-cosmetics R&D division of the company, tells the story of how Pierre Fabre, the founder, came across argan oil.

> "In the 1980s, Pierre Fabre, founder of the eponymous laboratories, discovered this oil that was extracted by moroccan women, who used it for their cooking. He then brought it to France, analyzed it, and provided evidence of its antioxidant power, and adds it as a component into an anti-aging skincare line of one their signature brands called Galénic." [Le Monde Interview with Bernard Fabre, 2014]

The discovery led by Pierre Fabre was however not the first scientific study of argan oil. Berrada in 1972 followed by Huyghebaert and Hendricks in 1974 were the first authors to provide a detailed analysis of the chemical components of argan oil (Charrouf & Guillaume, 2018). Subsequently, a team of researchers from the University of Perpignan in France were encouraged by these results and further researched the benefits of argan oil consumption on human health. They thus made the "first systematic chemical analysis of argan oil composition" and reported their results in a series of four papers that were published between 1981 and 1984 (Charrouf & Guillaume, 2018). A co-author of these papers was Professor Zoubida Charrouf, who was a biochemist student at the time. While researching her doctorate thesis, she took an interest in the tree's chemical composition, while looking for alternatives that could lead to its preservation and turned it into a life-long career interest[6].

Consequently, a large research program centered around the preservation of the argan forest and headed by the chemistry department of the University Mohammed V in Rabat began in 1985. This growing scholarly interest in turn attracted substantial international attention, especially in the climate of the Convention on Biological Diversity (CBD) in 1992 where the idea of transforming argan into a shared resource which will benefit local communities, state and scientific institutions (Turner, 2014). Finally, these events culminated in the livelihood upgrading strategies we will investigate in the next chapter.

[6] CNN. 'Passion drives Moroccan professor'. Retrieved by CNN https://www.cnn.com/videos/international/2014/03/10/spc-african-voices-zoubida-charrouf-a.cnn

Chapter 5: Findings

This chapter presents the findings of this dissertation. Specifically, we aim to examine how value chain development initiatives influence the livelihood upgrading and the inclusion of local communities in agricultural GPNs To this effect, we use our conceptual framework and the analytical strategies we adopted to present a finely grained narrative of the APN's evolutionary process. Specifically, we adopt a narrative strategy that we combine with the temporal bracketing approach developed by Langley (1999) to analyze our data. In this sense, three distinct phases emerged in our analysis. Consequently, we proceed with an iterative process where we apply our conceptual framework to each of the APN phases we defined. In this respect, we first outline the livelihood upgrading trajectories we identified in our data. We then present the value chain upgrading processes these trajectories influenced. We finish each phase with identifying the emerging challenges to the inclusion of small-scale producers and the strategies they adopted to remain included in the APN. Moreover, we embed the pattern codes that inductively emerged in the coding of our data throughout the reconstruction of our case study's evolutionary process to examine how small-scale producers further responded to the remaining inclusion challenges in the APN. In this optic, we attempt to answer our research question by closely examining the 1995-2015 period of the APN.

5.1. *Phase 1*: Emergence of the Argan Production Network (1995-2002)

5.1.1. Livelihood Upgrading Trajectories

Phase 1 marked the emergence of the APN. In this phase, we identified two primary livelihood upgrading trajectories that were implemented in the argan region and singlehandedly influenced the emergence of the APN. Our analysis revealed that the livelihood upgrading trajectories implemented during the current phase were IPs between international and local actors. To this effect, we refer to IP-A as the collaborative arrangement that was initiated in 1995 between the

German Corporation for International Cooperation, commonly known as the GTZ[7], and the Office of Cooperative Development (OCD)[8]. On the opposite hand, we identify IP-B as the collaboration between the Chemistry Department of the University Mohammed 5 (UM5) in Rabat[9], and the International Development Research Center (IDRC)[10]. It was launched in 1998 where the IRDC provided a four-year research grant and Professor Zoubida Charrouf of the UM5 spearheaded the IP intervention. While both IPs shared the objective of preserving the argan forest from further degradation, they each however, implemented a different approach to the issue. In what follows, we describe how these livelihood trajectories were implemented, and outline the different support services they assisted small-scale producers with to influence their value chain upgrading. We finish the sub-section with presenting a synthesis of IP-A and IP-B.

IP-A: Bridging the gap between rural development and reforestation initiatives

The GTZ's initial objective essentially consisted of designing potential strategies that would contribute towards reversing the degradation of the argan forest in a sustainable way. While conducting research on the field, development expert agents from both the GTZ and the OCD observed that most landowners in the forest turned to clearing their lands during the post-independence agricultural reform (See Chapter 4). They found that the local population's rationale behind this action was to grow more lucrative crops to generate an immediate income to support their families. Even though the argan tree and its traditional by-products have been a source of income for the local communities for generations, it paled in comparison to the fast income generated by cash crops oriented for export. Moreover, the argan region was touched by severe poverty and given that cash crops were easier to grow and harvest as opposed to extracting argan oil, the rate of cleared out argan lands accelerated:

[7] The GTZ is an international organization based in Germany that funds sustainable development and international education projects worldwide. They have recently changed their name to GIZ but we will be referring to them as GTZ because that is how they are known at the local level of the APN.

[8] The OCD is an administrative branch of the national government that specializes in providing financial and technical assistance to the cooperative system in Morocco.

[9] Capital City of Morocco.

[10] The IDRC is an international organization based in Canada that provides knowledge transfer and funding for innovation research projects in developing countries with the ultimate goal of achieving global change.

> We started closely working with the German Society for International Cooperation (GIZ), whose main objective is to support agricultural cooperatives in developing countries. Upon their arrival and study of the terrain, they have classified the argan forest into three distinct zones. This classification was determined based on the state and location of each zone (high in the mountains, severity of deforestation…). Through this, we have become increasingly aware that the forest is in dire need of preservation, so we started the argan project in Essaouira. The first step we had to put forward was to convince women that there is an alternative use for the argan tree that doesn't require cutting down its wood. N7 (expert of cooperative development at the OCD, February 2020).

Following these observations, the GTZ and OCD concluded that the local communities of the argan forest were one of the main contributors of its degradation since they didn't have an economic incentive granting them a motivation to preserve it. Interviewee N6, a representative of the cooperative union UCFA Tissaliwine, confirmed these findings:

> They *[IP-A]* had to come up with an idea to preserve the forest because they realized that if it wasn't considered a resource with some kind of economic value for the local population, then nobody would ever really put in an effort to work on its preservation (February 2020).

Consequently, IP-A introduced the "*Project for the Conservation and Development of the Argan Fores*t" (PCDAF). The project's primary mission was to work towards the preservation of the argan forest through the promotion of argan oil, while simultaneously including local small-scale producers in the process. In doing so, the GTZ and the OCD have paid particular attention to the development of the rural women within the region. These women were put at the forefront of argan oil marketing strategies as the 'guardians of argan oil' (Simenel et al., 2014; p.179) and main producers of argan oil:

> Most villages' majority population was women, and they were the ones who possessed the ancestral knowledge of extracting argan oil. It therefore made sense to put them at the center of it all and to also preserve the cultural heritage of the heritage. (N6, a representative of the cooperative union UCFA Tissaliwine, February 2020).

Furthermore, our analysis demonstrated that the inclusion of small-scale producers or, more specifically rural women, happened coincidentally. Since the focus was essentially centered on the preservation of the argan forest, N7 (expert of cooperative development at the OCD, February 2020) explained:

> The initial goal was never to enhance rural women's status. It's not until our first testings in the field that we realized we could both preserve the forest and include a "human touch"

> by promoting the development of the two million people who live off the land, while simultaneously helping improve the social status of rural women.

We found that this emphasis on the inclusion of rural women was the result of the field observations conducted by IP-A. According to N7 (expert of cooperative development at the OCD, February 2020):

> We saw that most of the men left their villages to find work in urban areas and provide for their families, meaning that the population of local communities consisted mainly of women, children and elderly people. We therefore closely studied rural women's way of live and found that while the argan tree's wood was beneficial to the local communities' daily sustenance and was sold in nearby markets for fuel and carpentry, argan fruits had no lucrative value. Also, we found that logging activities to harvest argan wood were drastically increasing, which was really dangerous for the forest.

To this end, a **major shift in the macro cultural discourse** on argan followed this livelihood upgrading trajectory. Consequently, argan fruits were put forward as a lucrative resource in an effort to convince local communities to abandon logging activities:

> "[…] We had to convince women that there is an alternative use for the argan tree that doesn't require cutting down its wood. Instead research initiatives done by us and the GTZ have shown that the argan fruit, which was so far considered worthless, can actually help them generate a revenue" (N7, expert of cooperative development at the OCD, February 2020).

Consequently, IP-A pushed for the introduction of argan oil as the primary instrument to generate income for rural women while ensuring that the forest was preserved from further degradation. To achieve this end, IP-A provided **organizational support** that facilitated collaborative arrangements between the OCD, the GTZ and the local communities where the PCDAF was to be first implemented. Consequently, village development associations were established with a heavy involvement from local communities (Nill & Böhnert, 2006). These associations were crucial in supporting the creation of argan cooperatives and ensured the continuous involvement of local communities in the project (Nill & Böhnert, 2006).

Moreover, IP-A provided **educational support**, where it offered capacity-building training to the members of the new cooperatives. In addition to basic literacy training, educational courses included training in cooperative principles and internal structure, hygiene standards, and the overall management of cooperatives. Emphasis was also given on product quality and marketing

courses. Last, environmental education was provided as well, where cooperative members were trained on planting argan tree nurseries, and sustainably harvest of argan fruits (Nill & Böhnert, 2006).

Finally, IP-A also provided **financial and technical support** to the new cooperatives. As a case in point, N7 an expert of cooperative development at the OCD (February 2020) explained that the partnership '*helped build the cooperative facilities and provide them with the ancestral equipment for argan oil production and modern containers for its distribution*'. IP-A further helped these cooperatives achieve high quality production standards by providing them with technical assistance in obtaining a certification granted by the National Office of Sanitary Security of Food Products[11] (NOSSFP):

> The NOSSFP proves that facilities and production capacities of cooperatives are up to code, which in turn enables them to sell their products in supermarkets and trade fairs. It also allows cooperatives to market their argan oil as a culinary oil. (N7, expert of cooperative development at the OCD, February 2020).

We now move to IP-B and the approach they adopted to influence the value chain upgrading processes of argan small-scale producers in Phase 1.

IP-B: Scientific expedition at the heart of the argan forest

In a similar vein to IP-A, we found that IP-B also aimed to link the development of rural women to the sustainable development of the argan forest. Initially motivated by the urgent need of preserving the endemic tree, this livelihood upgrading trajectory also sought to create an economic incentive for local populations to curb the forest's degradation through the establishment of argan cooperatives. Despite a shared objective however, we observed that Phase 1 IPs executed two different approaches. In fact, IP-A mainly focused on promoting the traditional extraction of argan oil by rural women while remaining as true to ancestral production processes as possible, where the resulting oil was marketed as a culinary oil (N6, a representative of the cooperative union UCFA Tissaliwine, February 2020). Conversely, IP-B sought to provide scientific evidence proving the virtues of argan oil for the skin (Charrouf & Guillaume, 2011). To this effect, IP-B

[11] The NOSSFP is a public institution that is responsible for protecting consumer health by ensuring the safety and security of animal and plant based products.

aspired to use scientific research to promote argan oil as a cosmetic product in international markets.

IP-B enjoyed further funding from the Moroccan government and international donors that included the Oxford Committee for Famine Relief[12] (OXFAM) and the Canadian and Japanese embassies (CBT Brochure, 2010). Through this funding, Professor Charrouf founded the Ibn Al Baytar association in 1999 with the primary environmental purpose of ensuring the preservation of the argan ecosystem, along with improving the socio-economic status of rural women and promoting medicinal plants found in the argan forest (Charrouf & Guillaume, 2011). To achieve this end, the association established agricultural cooperatives that mainly specialized in the extraction of argan oil, but also of essential oils native to the region (Charrouf and Guillaume, 2011).

In addition to the **financial support** granted to establish argan cooperatives, IP-B offered these cooperatives **technical support** in the form of extended scientific research that targeted the enhancement extraction methods of argan oil. As a case in point, IP-B aimed to introduce mechanized equipment with the objective of increasing the efficiency of extraction by reducing the labor duration required by such a process (Evrard, 2010). In terms of **organizational support**, IP-B helped the cooperatives it established create internal rules and practices that aimed to ensure they are properly ran. For instance, members had to be usufructuary right holders, and must provide a certain amount of argan fruits each month where they would be paid 20% over the market price (Charrouf & Guillaume, 2011). IP-B additionally helped them establish an internal structure that helps the members determine which stage of the extraction they could participate in. Here, most members would work in tandem in the nut cracking process to extract argan kernels, while a select few would handle the equipment used for the extraction. IP-B also offered **educational support** to the cooperative members. For instance, they introduced literacy courses which members could attend for free. They also offered oil-extraction technology training to members who were appointed to mechanically extract argan oil. Additional courses included training on the legal constitution of cooperatives, on food safety and management (Charrouf & Guillaume, 2011).

[12] OXFAM is an international NGO that provides funding to projects pertaining to the alleviation of global poverty and with a special focus on women's rights.

Finally, IP-B further contributed to **a change in the macro cultural discourse** on the extraction of argan oil. As a case in point, in addition to following in IP-A's footsteps of using argan oil as an instrument to reverse the degradation of the argan forest, IP-B helped convince rural women that adopting modern techniques to extract argan oil did not imply a rejection of their ancestral culture (Charrouf & Guillaume, 2011). This was a collaborative effort led by the IP-B partners to help convince eligible rural women to join the cooperatives as many were weary of the process at first.

Summarizing and moving forward

In conclusion, we observed that Phase 1 was set in motion following the implementation of IP-A and IP-B as the pioneering livelihood upgrading trajectories of the APN. We found that these IPs operated separately and independently, although they provided an equal amount of support to the cooperatives they each helped establish. Moreover, both IPs identified rural women as the main beneficiaries of the emerging APN and adopted a different approach for the production of argan oil. As a case in point, IP-A aimed to remain as true to the ancestral method as possible and focused on producing argan oil that was intended for a culinary usage. On the opposite hand, IP-B relied on scientific research to enhance the production process of argan oil extraction through the introduction of mechanized equipment. While the IP initially also produced argan oil intended for culinary purposes, it sought to prove the dermatological values of argan oil scientifically in order to market it as a cosmetic oil in the future. Furthermore, IP-A facilitated the access of all cooperatives to the NOSSFP certification that ensured that the argan oil they produced was safe for consumption. Moreover, we found that the support of IP-A enabled UCFA Tissaliwine to obtain the legal rights to use European Eco label[13] in 2000 (Drews, 2002). On the opposite hand, semi-mechanized cooperatives were able to obtain an excellence award by winning the Slow Food prize in 2001 in addition to the local certification, which rewards organizations for achieving excellent quality standards and meeting sustainable goals in terms of biodiversity preservation and

[13] This label is defined by the European Commission as a *"label of environmental excellence that is awarded to products and services meeting high environmental standards throughout their life-cycle: from raw material extraction, to production, distribution and disposal"* (European Commission Website).

social investments (Evrard, 2010). Table *8* summarizes our findings on the IPs we identified in Phase 1.

Table 8: Synthesis of support services provided by IP-A and IP-B in Phase 1.

Phase 1 IPs Support services	**IP-A** (1995-2001)	**IP-B** (1998-2002)
Financial support	♦ Funding provided mostly by the GTZ with assistance from the Moroccan state through the ODC which initiated the PCDAF project. ♦ Funding also allocated to create cooperative facilities and equip them with traditional equipment to extract argan oil and modern equipment to distribute argan oil.	♦ Funding provided by the IRDC, Canadian and Japanese embassies. ♦ Funding helped encourage scientific research on argan oil and the establishment of the Ibn Al Baytar association which oversaw the creation of the first cooperatives that use modern equipment to extract argan oil.
Technical Support	♦ Assistance in achieving high production quality and hygiene standards.	♦ Enhanced extraction methods of argan oil: equipment aimed to increase efficiency of extraction while decreasing duration of extraction.
Educational Support	♦ Basic literacy classes. ♦ Course training in: cooperative principles, hygiene standards, management, product quality, marketing, environmental education.	♦ Basic literacy classes. ♦ Course training in: oil extraction technology, legal constitution of cooperatives, food safety and management.
Organizational Support	♦ Organizational support aimed at the village level: establishment of village development associations following collaborative arrangements between local communities and partners.	♦ Organizational support at the cooperative level: helped establish rules and regulation for internal structure of the cooperative.
Macro Cultural Discourse Change	♦ Introduced the idea that generating income through argan oil while ensure local communities will work on preserving the argan forest and abandon excessive logging activities.	♦ Helped convince rural women that the use of modernized equipment to extract argan oil didn't imply a rejection of their ancestral culture. ♦ IP-B also convinced rural women that the traditional method is painstaking and the

		semi-mechanized extraction eases the labor process.
Certification and Standards	♦ Assistance in obtaining NOSSFP certification. ♦ Support of IP-A enabled UCFA Tissaliwine to obtain the legal rights to use European Eco label.	♦ Assistance in obtaining NOSSFP certification. ♦ Slow Food prize excellence award in 2001.

Source: Author's own elaboration based on findings.

Improving value chain coordination:

The implementation of IP-A and IP-B influenced a **value chain coordination improving** in Phase 1. As a case in point, we found that both IPs facilitated the introduction of a **horizontal coordination**. In this sense, we found that IP-A led to the federation of the cooperatives it helped create under the banner of the 'Union of Women Cooperatives for the Production and Marketing of Organic Argan Oil and Agricultural Products" in 1999, although it is more commonly referred to as UCFA Tissaliwine within the APN:

> We are a producers' union that groups several cooperatives. All of us in the management team are from the region and have degrees in management and administration. Our union's main task consists of helping cooperatives promote their argan oil in international markets and try our best to link them to the best markets both nationally and abroad to ensure that they reap the benefits of the value chain and get a fair price for their products. (N6, a representative of the cooperative union UCFA Tissaliwine, February 2020).

On the opposite hand, we found that the semi-mechanized cooperatives created following the intervention of IP-B were supervised by the Ibn Al Baytar association and similarly formed a cooperative network (Evrard, 2010). Next, we found that the IPs also influenced a **vertical coordination**. Through the analysis of our data, we were able to discern between three market channels of argan oil in Phase 1: local, domestic, and international. Here, we refer to the local market as the market operating within the boundaries of the argan region, domestic as the market operating outside the argan region but within national boundaries, and international as the market operating beyond national boundaries.

Subsequently, we observed that the accelerated rise in popularity of argan oil helped increase its presence in the local market. For example, we interviewed a cooperative that was established during Phase 1 who gave us the following statement:

> Since we are a part of the union, the UCFA Tissaliwine helped us and all its cooperatives set up small sections inside our cooperatives that were dedicated for sales. The goal was to potentially attract tourists traveling around the region and have them buy pure argan oil directly from us. (N4, President and Founder of Aoumerkt Cooperative, January 2020).

Next, in the case of the domestic market, N6 (a representative of the cooperative union UCFA Tissaliwine, February 2020) pointed out:

> The RWFA[14] in collaboration with the OCD helped our cooperatives display their products in select shopping centers around the country. Here, the attention was centered on argan oil for culinary usage, and cooperative members were presented as the sole producers of this commodity.

Last, N6 (a representative of the cooperative union UCFA Tissaliwine, February 2020), explained that IP-A '*assisted our cooperative members in facilitating their access to the international market by organizing travels to Germany, France and Spain to promote the culinary argan oil they produced in international fairs and cultural forums*'. Moreover, our examination of a BASF[15] corporate report on the MNCs sustainable sourcing of argan oil demonstrated that through IP-B, semi-mechanized cooperatives have become the MNC's main suppliers of argan oil and argan raw materials starting from 2000 (BASF Report, 2015). We also found indication that semi-mechanized cooperatives under the patronage of the Ibn Al Baytar association had direct linkages to at least one foreign SME. As a case in point, one such SME *'Katima'A'* sourced argan oil directly from these cooperatives (Evrard, 2010). *Table 9* below summarizes the improving value chain coordination strategies we observed in Phase 1.

Table 9: Summary of Phase 1 value chain coordination improving.

Value chain coordination strategy	Findings
Horizontal Coordination	♦ Creation of cooperative networks and their subsequent federation under a union and a producer

[14] As previously stated in Chapter 4, the RWFA refers to the Regional Water and Forest Administration.
[15] BASF is a large supplier of personal care products and specializes in sourcing ingredients sustainably and with a CSR ethic.

	association which provide continuous support to local communities.
Vertical Coordination	♦ Due to increase in demand internationally: o First attempts of early cooperatives to access the international market. ♦ Creation of local and domestic markets for argan oil.

Source: Author's own elaboration based on findings.

5.1.2. Value chain upgrading strategies influenced by livelihood upgrading

We now turn our attention to the value chain upgrading strategies influenced by the implementation of the Phase 1 livelihood upgrading trajectories.

First, IP-A and IP-B influenced an **improving process and product** value chain upgrading process. As a case in point, we observed a **process upgrading** limited to IP-B cooperatives where new extraction equipment was introduced to increase the efficiency argan oil of production. As a case in point, this equipment could extract a higher rendering of argan oil while limiting wastage of the raw material. Prior to IP-B's intervention, it could take up to 240 kg of fresh argan fruits and around 58 hours of individual work to extract anywhere between 2 to 2.5 l of argan oil[27] following the ancestral hand-pressing method. Following the introduction of the semi-mechanized process, each cooperative member could now extract 3 liters of argan oil in 30 hours while using the same quantity of fruits (Charrouf & Guillaume, 2018). Next, we observed a **product upgrading** along the emerging APN. Specifically, we observed a sharp increase in the price of argan by-products in the SM region during Phase 1. According to a report conducted on the argan market by the Ministry of Agriculture and Fisheries (MAF) in Morocco, the price of argan fruits increased by 4% of its original price, while the price of argan oil increased by approximately 2.5% (Aboudrare et al., 2009). Additionally, both IPs played an important role in helping cooperatives with marketing aspects, which in turn influenced the product upgrading along the APN. For instance, N6 (a representative of the cooperative union UCFA Tissaliwine, February 2020) explained: '*we helped cooperatives design labels, logos and containers that would help them stand*

[27] Data extrapolated from Charrouf & Guillaume (2014); (2018).

out in the market'. We further observed similar improvements in semi-mechanized cooperatives through the influence of IP-B (IRDC, 2010).

Last, we observed through the analysis of our data a **changing and adding functions** value chain upgrading process, Specifically, the advent of scientific research on argan oil has led to an **intersectoral upgrading**. As previously indicated (Chapter 4), argan kernels were roasted prior to the extraction process and there was no ancestral distinction between argan oil for culinary or cosmetic use. Researchers spearheaded by Professor Charrouf have found, however, that when kernels are not roasted, the resulting oil conserves its dermatological virtues better. Consequently, argan oil was classified as either culinary, where argan kernels were roasted, and cosmetic, where they weren't:

> This is when the market was divided for the first time between two oils, one for culinary usage and the second for cosmetic usage. The only difference between them is that kernels are roasted to make the culinary oil and aren't to make the one for the skin. (N6, a representative of the cooperative union UCFA Tissaliwine, February 2020)

Last, we couldn't find evidence of functional upgrading in any of the data we collected. Table *10* below synthesizes our findings of the value chain upgrading processes of small-scale producers in Phase 1:

Table 10: Value chain upgrading strategies identified in Phase 1.

Upgrading Strategies	Findings
Improving process and product	♦ Upgrading of products: o Increase in price of argan oil and raw material. o Upgrading of marketing strategies of cooperative products. ♦ Process upgrading: o Semi-mechanization of extraction process to increase efficiency and quality of production.
Changing and adding functions	♦ Functional upgrading: N/A. ♦ Intersectoral upgrading: o Differentiation between culinary and cosmetic argan oil.

Source: Author's own elaboration based on findings.

5.1.3. Inclusionary processes of small-scale producers in the APN

In the previous sub-sections, we presented the different forms of livelihood upgrading trajectories and value chain upgrading processes we identified in Phase 1. We now turn our focus to the ways in which these forms of upgrading influenced the conditions for inclusion of small-scale producers within the APN.

The first challenge our analysis uncovered was **the difficulty of meeting certification regulations** required by the international market. Although we found that the IP interventions proved instrumental in helping cooperatives meet certain certification regulations, it appeared however that local communities uninvolved with cooperatives were excluded from the process. As a case in point, N1 (Professor at UM5 specializing in rural development, January 2020) indicated the following:

> You know a fundamental requirement in achieving quality and certification standards was through gaining membership in a cooperative. Without it, it can be extremely difficult for local populations to get a certification.

This measure was introduced by both IPs to respond to the traceability requirements imposed by international certification regulations (Charrouf & Guillaume, 2014), as they have found that the establishment of cooperatives increased the chances of local communities responding to these regulations (Drews, 2002).

An additional challenge we uncovered was that, while both IPs assisted cooperatives in their early conception in offering them training courses, **capacity-building skills remained limited** amongst cooperatives. We also found that training courses in general were essentially offered to cooperative members, resulting in the exclusion of other small-scale producers from reaping the benefits of the emerging APN:

> Marketing skills and the general know-how of members remained limited, and more training was required for cooperatives before they could operate independently. Also, you had to be a part of a cooperative to participate in literacy classes. (N7, expert of cooperative development at the OCD, February 2020).

Our analysis further indicated that the emerging APN heavily relied on donor funding to provide the resources required to establish argan cooperatives. As far as our data and research could indicate, bank **credits were not yet available** for individuals seeking to start a cooperative outside of the support of IP-A and IP-B. This suggests that small-scale producers located outside of the area of influence of these IPs could therefore not establish argan cooperatives, thus leading them to being excluded from the APN.

We also found that **modernized equipment was only available to semi-mechanized cooperatives**, as cooperatives funded by IP-A remained loyal to the ancestral extraction method (Drews, 2002). As previously indicated, ancestral extraction, unlike the semi-mechanized process, required a higher extraction time and labor power to reach sufficient quantities of argan oil for distribution. This suggests that cooperatives specializing in the ancestral method could not meet the same production output as semi-mechanized cooperatives. It also suggests that semi-mechanized cooperatives were more likely to reap higher benefits from the APN than other cooperatives.

Following insights from N6 (representative of the cooperative union UCFA Tissaliwine, February 2020), and secondary data (Evrard, 2010), we discovered that cooperatives in Phase 1 were strategically established around large urban centers to facilitate their access to the emerging export routes for argan oil. N6 (a representative of the cooperative union UCFA Tissaliwine, February 2020 explained that the reason behind this decision was to '*avoid the weak infrastructure dominant in remote villages as it would have made it difficult for cooperatives to reach distribution channels*'. Furthermore, our previous finding that the IPs designated cooperatives as the "official argan producers" of the APN suggests that they were the only ones with the means to access national and international market channels. In this sense, we observe a dynamic where small-scale producers outside cooperatives had more **difficulties accessing lucrative markets**, therefore leaving them in a position where they were excluded from reaping the benefits of the APN.

Furthermore, N6 (a representative of the cooperative union UCFA Tissaliwine, February 2020) indicated that argan oil for cosmetic usage was initially more challenging to promote in international markets as both IPs realized that more complex regulations were required to advertise

argan oil as a cosmetic product: *"[…] we were faced with several questions: how do we convince consumers it was good for the skin? How do we prove its chemical properties?"*. Consequently, Phase 1 cooperatives looked for **alternative resourcing** to overcome this challenge, and as such turned to Professor Charrouf who was at the head of scientific research on the argan forest and its by-products:

> We looked to her [Prof. Charrouf] as she was already conducting a lot of scientific research on the argan tree. We knew she was working hard on scientifically proving that argan oil is not only safe to use but actually amazing for the skin (N6, a representative of the cooperative union UCFA Tissaliwine, February 2020).

Our next point looks at **the power imbalances** we were able to uncover through our analysis. We indicated in the previous chapter that the legislation surrounding the argan forest dictated that it is impossible to bypass local communities to access the raw material and produce argan oil outside of its area of origin. While this factor suggests that the inclusion of small-scale producers in the emerging APN should have been guaranteed, we nevertheless found that a number of local and global power dynamics affected the way these producers were included in the production network.

As a case in point, patriarchal traditions and dominant gender inequality norms made it difficult to convince most communities to participate in the development of the early cooperatives. Our interview with N7 (expert of cooperative development at the OCD, February 2020) revealed the following:

> It was difficult at first for us to convince women to remain members of their cooperatives as they would often unexpectedly quit. We believed that it was because they couldn't reconcile cooperative schedules with their household duties and further stated that other members were forced to leave because of husbands who couldn't accept that their wives were working and earning a wage.

Finally, our analysis indicates that access to argan lands was an important factor to gain membership in a cooperative (Damamme, 2005). N6 (a representative of the cooperative union UCFA Tissaliwine, February 2020) explained that this was a requirement put in place by both IPs to ensure the quality and traceable origin of the raw material, which in turn helped cooperatives meet quality regulations that could be required at the time of export. However, as we have indicated in the previous chapter, the access to land has become difficult and very few local communities actually held usufructuary rights. Moreover, Damamme (2005) found that in addition to holding

usufructuary rights, a woman must be a resident of the same village where the cooperative is located, which limits working opportunities for women from neighboring communities.

Consequently, to overcome the aforementioned challenges and gain some access to the local market, we observed an **unintentional downgrading** adopted by some small-scale producers who weren't eligible to become cooperative members but nonetheless aspired to benefit from the growing popularity of argan oil and earn some revenue:

> You know before more locals could join or open cooperatives, a lot of people in villages at the beginning would just fill a few one liter bottles of *Sidi Ali*[28] and sell them on the side of roads. It was usually men who would get argan fruits and ask their moms or wives to extract argan oil at home. I think it was for 10, maybe 20 MAD[29] a bottle? I can't remember exactly but it was pretty cheap. (S13, our local guide in Tiznit with past experience with cooperatives specializing in producing medicinal plants and essential oils, January 2020).

Table *11* below summarizes the challenges to inclusion we identified in Phase 1.

Table 11: Challenges to inclusion of local communities identified in Phase 1

Challenges to Inclusion	Findings
Meeting quality and certification standards	♦ Ability of cooperatives to meet some standards required by large markets. ♦ Local communities alone can't meet standards unless part of a cooperative.
Capacity Building	♦ Training of cooperatives includes literacy courses, marketing, and administration training. ♦ Training classes were exclusive to cooperative members, meaning a majority of local communities didn't benefit.
Access to Credit	♦ Funding was acquired exclusively through IP-A and IP-B. ♦ Credit unavailable to local communities to open independent cooperatives.
Availability of technology inputs and infrastructure	♦ Modern equipment only available through IP-B. ♦ Cooperatives under IP-A produced less than semi-mechanized cooperatives.

[28] Sidi Ali is a Moroccan brand of bottled mineral water.
[29] 1-2 CAD.

	♦ Weak road infrastructure in remote rural areas.
Constraints in accessing markets	♦ Cooperatives were located only near major cities and were the only ones with access to international markets. Local communities located in remote areas were thus automatically excluded.
Power Imbalances	♦ Persistent patriarchal traditions and gender inequality leading to difficulty finding members. ♦ Membership access was only available to women with usufructuary rights and in the same village where a cooperative is based. ♦ Power struggles between cooperatives and MNCs, where MNCs could produce more argan oil and reap the profits intended for local communities.

Source: Author's own elaboration based on findings.

We will examine how small-scale producers in argan further strategized to remain included as we reconstruct the narrative process of phase 2.

5.2. Phase 2: Attempt at export market integration (2003-2008)

5.2.1. Livelihood upgrading

Phase 2 marked the reorganization of the APN to achieve an export-oriented production. In this phase, we identified two livelihood upgrading trajectories with contrasting objectives. In a similar vein to Phase 1, our analysis revealed that the livelihood upgrading trajectories implemented during the current phase were IPs between international and local actors. In this respect, we refer to IP-C as the collaboration between the Social Development Agency[30] (SDA) and the European Union (EU) as a part of the larger MEDA[31] program. The IP-C was instrumental in implementing the Argan Project (AP) to the emerging APN from 2003 to 2005. In contrast, we refer to the collaboration between the Moroccan government and multiple development partners including the

[30] The SDA is another administrative branch of the national government that specializes in initiating and assisting projects and programs that are aimed towards the sustainable improvement of vulnerable populations in the country.

[31] The MEDA program refers to the collaboration between the EU and southern Mediterranean countries to provide them with the financial and technical assistance to achieve a reform of economic and social structures by modernizing local enterprises and developing the local private sector.

World Bank as IP-D. This IP introduced the National Initiative for Human Development (NIHD) project. IP-C and IP-D operated with the similar premise of combatting poverty and the social exclusion of marginalized groups in the agricultural sector through the creation of cooperatives. The IPs however implemented contrasting operational models. It is also important to note that these livelihood upgrading trajectories were implemented to overcome the challenges we identified in the previous phase. Additionally, the NIHD remains an ongoing project as part of the national agenda of achieving the human development of the country. However, we will primarily focus on the 2005-2008 period. We have found that it is this period of the project that has had an the most significant influence on the APN and is thus essential in understanding its evolution process. In what follows, we describe how these livelihood upgrading trajectories were implemented, and outline the different support services they assisted small-scale producers with to influence their value chain upgrading. We finish the sub-section with presenting a synthesis of IP-C and IP-D.

IP-C: The Argan Project (AP)

As previously indicated, IP-C implemented the Argan Project (AP) to the APN. The AP's principal focus was to enhance the socio-economic status of rural women living around the argan forest through an enhanced structuring of the emergent production network, while simultaneously working towards preserving the forest from further degradation (SDA website, 2019). To do, IP-C sought to provide existing cooperatives with the assistance necessary to create export routes and thus increase the value-added of their production. Consequently, IP-C experts started the project by conducting multiple field investigations to gain insights into the challenges currently faced by argan cooperatives in the beginning of Phase 2:

> The AP sought to further highlight the existing cooperatives as the primary producers of argan oil in the APN. While researching the field, we found that while some early cooperatives found limited success in reaching the European market, exporting cosmetic argan oil proved problematic. That's because cooperatives were not equipped with the proper resources that would enable them to meet European market requirements. We also found that cooperatives were unable to meet the rapidly rising demand in argan oil and we therefore worried they would be left out of the APN if they didn't have the proper tools to compete in the market (N9, administrative representatives of the SDA, February 2020).

Subsequently, IP-C provided support with the intent of overcoming the challenges the SDA discovered on the field. It therefore provided a **financial support** with the sum of 12 million

euros[32] which was then allocated depending on the resources needed by cooperatives[33]. Then, N9 (administrative representatives of the SDA, February 2020) revealed that the MEDA program provided both the SDA and existing cooperatives **technical assistance**:

> As a first step, and since our organization was relatively new with limited experience, MEDA officials worked on transferring skills and working knowledge to the SDA. Through this knowledge transfer, we created a detailed technical guide that shows how the extraction -traditional or semi-mechanized- process will respond to quality norms specified by the European market. Specifically, the guide provides detailed instructions on each step of the extraction process and on internationally accepted quality insurance procedure. It also provides the documentation required from each cooperative to prove that argan oil extraction was undertaken following procedure. This documentation also ensures that cooperatives provide a detailed information on each step of the extraction to ensure traceability of production.

IP-C provided further technical support by purchasing additional equipment and hiring local workforce to increase the production of argan oil. Following the alternative resourcing we identified in Phase 1, a part of the funding was dedicated to furthering the scientific research on argan oil in order to improve its quality and increase the efficiency of existing production equipment[34]. Moreover, IP-C helped with the renovation of cooperative facilities to help them meet the quality and sanitary standard requirements imposed by the European market[35]. In terms of **organizational support**, IP-C helped the cooperatives with improving their marketing strategies and managing their administrative and financial affairs[36]. It also further supported cooperatives to join economic interests groups (EIGs) to help strengthen their position in the APN. EIGs in the argan region are cooperative networks with the primary mission to help its members promote the marketing of argan oil in the APN (administrative representatives of the SDA, February 2020). Furthermore, **educational support** was also provided to complement the implemented organizational assistance. As a case in point, IP-C helped with the training of 66 local personnel with a minimum of a high school degree. This personnel in turn would train cooperative

[32] 16,5 million CAD.
[33] Data found in document provided by N9 (administrative representatives of the SDA, February 2020) during our interview.
[34] Data found in document provided by N9 (administrative representatives of the SDA, February 2020) during our interview.
[35] Data found in document provided by N9 (administrative representatives of the SDA, February 2020) during our interview.
[36] Data found in document provided by N9 (administrative representatives of the SDA, February 2020) during our interview.

members follow the enhanced argan oil production standards implemented by the IP-C. Additional educational training of cooperative members included literacy programs of basic calculus, language lessons (French and classical Arabic), and lessons on a cooperative's organizational structure. More training was provided to members who expressed interest in taking charge of administrative and financial of their cooperatives (i.e., president, vice-president, treasurer, sales manager). Last, lessons on the importance of the preservation of reforestation activities of the argan forest were also an integral part of the educational training of cooperative members[37]. We also couldn't find in our data evidence of a new macro cultural discourse change.

IP-D: the National Initiative for Human Development (NIHD) project

The National Initiative for Human Development (NIHD) was a project launched in 2005 as an attempt to promote women's empowerment and rural development (Perry et al., 2019) by combating poverty and the social exclusion of marginalized groups in Morocco (Pereira & Santos, 2018). Following the success of early cooperatives observed in Phase 1, IP-D was inspired to promote the creation of cooperatives as 'agents of development' of the country's agricultural sector through providing financial support to emerging cooperatives (Pereira & Santos, 2018). In contrast to IP-C, which was exclusively established to support existing argan cooperatives, the NIHD operated on a national scale and supported the creation of state-subsidized cooperatives with mostly inexperienced members who wished to specialize in any disadvantaged agricultural subsector; i.e., olive, livestock and *produits du terroir* including argan (Pereira & Santos, 2018).

Given the early successes of argan cooperatives from Phase 1 and the important support implemented to the APN through IP-C, more local small-scale producers became interested in establishing or joining argan cooperatives to better integrate the global market. Thanks to the grants provided by the NIHD, the number of argan cooperatives increased in the argan region. Also, in the case of these state-subsidized cooperatives, application requirements weren't as strict as they were for Phase 1 cooperatives. In fact, we found that women wishing to join these new cooperatives didn't need to have usufructuary access to argan fruits in order to join (N2, President of the Sidi Ouagag Aglou cooperative, January 2020). Moreover, the funding of the IP-D enabled

[37] Data found in document provided by N9 (administrative representatives of the SDA, February 2020) during our interview.

state-subsidized cooperatives to buy some equipment in order to follow the semi-mechanized extraction method (N2, President of the Sidi Ouagag Aglou cooperative, January 2020).

However, we observed that IP-D failed to provide the same quality of support that was offered through IP-C. For instance, newly created cooperatives lacked the governance, management and technical capabilities to successfully enter the argan market, and the NIHD provided no apparent training to overcome this challenge (Pereira & Santos, 2018). Furthermore, and according to Perry et al. (2019), the influence of the NIHD in terms of 'training, oversight, accountability and transparency in the argan industry […] appears to be sorely lacking' (p:850). Finally, unlike the three previously identified IPs, IP-D offered insufficient monitoring and technical assistance to new cooperatives following their conception (Pereira & Santos, 2018).

According to N1 (Professor at UM5 specializing in rural development, January 2020), the cooperative system in Morocco that fully benefited from IP-D's support primarily focused on structuring agricultural subsectors that were deemed basic necessities such as dairy, livestock and cooking oils (sunflower and olive). This was because subsectors are lucrative for small-scale farmers where they can enjoy high profit margins:

> Milk, meat and olive oil cooperatives are highly successful in the country and everybody on the production's value chain benefits from the generated profits, starting from the small farmers. This is due to the Moroccan government putting numerous incentives in place that help small scale farmers of primary resources generate profits from their lands. Part of these incentives are the establishment of cooperatives, along with helping these farmers out with subsidies to help them pay for the resources they need. (N1, Professor at UM5 specializing in rural development, January 2020).

In contrast, N1 (Professor at UM5 specializing in rural development, January 2020) further indicated that argan oil did not benefit from a similar support from IP-D:

> Argan is not considered a primary resource and even though it is essential to the development of rural areas in the South, it is not considered a basic necessity by the government. It is more considered as a "*produit de terroir*" or a luxury cosmetics ingredient.

In other words, IP-D primarily offered small-scale producers who wished to start their own cooperative some financial support, but **failed to provide further organizational, technical and**

educational assistance that was highly needed for their success. We also couldn't find any evidence in our data of a macro cultural discourse change stimulated by IP-D.

Summarizing and moving forward

Similarly to Phase 1, the current phase saw the implementation of two livelihood upgrading trajectories. First, IP-C aimed to provide the resources needed by existing argan cooperatives to create export routes for argan oil. We observed here that the work undertaken by IP-C was done to continue the efforts of both IP-A and IP-B. In this sense, IP-C sought to organize a production network that ensured profits trickled down to members of the cooperatives. Next, our analysis revealed the implementation of IP-D pioneered by the Moroccan government that focused on financing the cooperative system in all agricultural subsectors in the country. The government was highly influenced by the initial success of argan cooperatives reported by IPs in Phase 1 and the potential profits that could be generated for additional small-scale producers and their families around the region. To this end, IP-D allocated some financial grants to help create new state-subsidized argan cooperatives where non-usufructuary rights holders could start cooperatives or become members. Finally, to ensure pre-conditions of small-scale producers' inclusion in the APN, we found that IP-D helped state-subsidized cooperatives obtain the local NOSSFP certification as evidence that the argan oil produced by these cooperatives was safe for consumption (Pereira and Santos, 2018). In contrast, IP-C assisted federated cooperatives in obtaining the Hazard Analysis and Critical Control Point (HACCP) certification[38]. This is a certification validated by the US Department of Agriculture (USDA) that would provide evidence of the safety of argan oil from the harvest of the raw material to its consumption by end-consumers (N9, administrative representatives of the SDA, February 2020). Additionally, continuous support from BASF enabled the Targanine EIG to obtain the Fair-Trade certification in 2007 (BASF, 2015). Moreover, N6 (representative of the cooperative union UCFA Tissaliwine, February 2020) indicated the following:

> We regularly collected samples that were examined in state-approved laboratories to always ensure our customers of the high quality of the oil produced in our cooperatives.

[38] Data found in document provided by N8 (Representative of the AMIGHA association, February 2020) during our interview.

Table *12* summarizes our findings on IP-C and IP-D:

Table 12: Synthesis of support services provided by IP-C and IP-D in Phase 2

Phase 2 IPs Support services	**IP-C** (2003-2008)	**IP-D** (2005-2008)
Financial support	♦ Financial support of 16.5 million CAD to existing cooperatives.	♦ Grants allocated to non-usufructuary rights holding small-scale producers to create new cooperatives.
Technical Support	♦ Transfer of skills and working knowledge From MEDA to SDA. ♦ Creation of a technical guide that documented the traceability of production and helped existing cooperatives respond to quality norms specified by the European Union. ♦ Purchase of additional equipment to increase argan oil production. ♦ Advancement in scientific research to enhance quality and efficiency of production. ♦ Renovation of cooperative facilities to help them meet sanitary regulations imposed by the European Union.	N/A.
Educational Support	♦ Training of local workforce with a minimum of a high school education in managerial positions within EIGs. ♦ Training of cooperative members in new production standards that meet European Union requirements. ♦ Literacy programs in basic calculus, language lessons, cooperative culture and importance of the argan forest's preservation.	N/A.

	♦ Training of cooperative members who wished to assume managerial positions within their cooperatives.	
Organizational Support	♦ Assistance of existing cooperatives with improving marketing strategies and management of administrative and financial affairs. ♦ Establishment of economic interest groups (EIGs).	N/A.
Macro Cultural Discourse Change	N/A.	N/A.
Certification and Standards	♦ All federated cooperatives obtained a HACCP certification. ♦ Targanine EIG obtained a fair trade certification.	♦ Assisted state-subsidized cooperatives to obtain NOSSFP certification

Source: Author's own elaboration based on findings.

Improving value chain coordination:

We further observed a **value chain coordination improving.** As a case in point, we found that IP-C facilitated the introduction of a **horizontal coordination**. Specifically, IP-C helped establish three economic interest groups (EIG); namely *Targanine*, *Vitargan* and *Argan 'Taroudant*[39]. As previously stated, the primary objective of these groups was to offer continuous financial and technical assistance to cooperative members, while simultaneously helping with promoting and distributing their products to formal markets. IP-C further helped create additional argan cooperatives that became federated under UCFA Tissaliwine (N6, representative of the cooperative union UCFA Tissaliwine, February 2020). Moreover, we observed that the cooperatives that benefited from the support of IP-C adopted a **collective mobilizing** strategy and

[39] Data found in document provided by N9 (administrative representatives of the SDA, February 2020) during our interview.

as such further federated under a producer's association locally known as the ANCA[40]. Consequently, the primary aim of the ANCA was to provide continuous technical assistance to its federated cooperatives and advocate for the strengthening of their position in the APN[41].

We then observed the implementation of a **vertical upgrading**. Through the analysis of our data, we were able to discern between three markets of argan oil in Phase 2: local, domestic, and international. As a reminder, we referred to the local market as the market operating within the boundaries of the argan region, domestic as the market operating outside the argan region but within national boundaries, and international as the market operating beyond national boundaries. We also refer to federated cooperatives as the cooperatives that benefited from the implementation of IP-C and are integrated into the ANCA. In contrast, we refer to state-subsidized cooperatives as the cooperatives that emerged following the implementation of IP-D.

First, in the case of the local market, we observed the establishment of a local raw material market in the argan region following an increase in numbers of state-subsidized cooperatives. Since these cooperatives, unlike federated cooperatives, accepted members that weren't necessarily usufructuary right holders, this market provided them with the raw material they needed to extract argan oil. Here, they could either purchase fresh or dried argan fruits. Specifically, this market operated as a network where usufructuary right holders wishing to make a small profit would harvest argan fruits that they could then sell to cooperative members:

> To get argan fruits, we would, based on close kin linkages in the region, connect with usufructuary right holders and directly buy the raw material from them. We also made sure to document everything to respect the traceability regulations (N2, President of Sidi Ouagag Aglou Cooperative, January 2020).

Our field observations further indicated that state-subsidized Sidi Ouagag Aglou and federated Aoumerkt cooperatives both distributed their products locally through designating a small sales section within their facilities, that were mostly targeted towards tourists visiting the region. (Field notes, January 28th-29th, 2020).

[40] Stands for 'association nationale des coopératives d'Argane'.
[41] Data found in document provided by N9 (administrative representatives of the SDA, February 2020) during our interview.

Next, we found that federated cooperatives could access the domestic market following the assistance of IP-C. As a case in point, N4 (President and Founder of Aoumerkt Cooperative, January 2020) revealed that: *"we have had long-standing relationships with customers in other major cities such as Casablanca to whom we deliver argan oil directly'*. Moreover, the UCFA collected -culinary- argan oil from its cooperatives and assisted them in distributing it to lucrative commercial chains such as prestigious hotels or large shopping centers (Nill & Böhnert, 2006). The customers targeted at these chains were high disposable income households in large metropolitan areas around the country (Nill & Böhnert, 2006). Last, we found that federated cooperatives were able to access the international market through the support of IP-C: '*we exported culinary oil to the first time to Germany in 2003*' (N6, Representative of the cooperative union UCFA Tissaliwine, February 2020). *Table 13* below summarizes the improving value chain coordination strategies we observed in Phase 2.

Table 13: Summary of Phase 2 value chain coordination improving.

Value chain coordination strategy	**Findings**
Horizontal Coordination	♦ Establishment of EIGs that specialize in the promotion and distribution of cooperative products in formal markets. ♦ Creation of the ANCA as a result of the collective mobilizing of federated cooperatives.
Vertical Coordination	*Market segmentation into three distinct channels: local (within argan region), domestic (outside argan region but within national borders) and international (outside of national borders).* ♦ Local market: o Sales section in state-subsidized cooperative centers. o Creation of a formal market for the by-products of the argan tree. ♦ Domestic market: o Sales are aimed at high disposable income households in large cities.

	○ Cooperative products are typically displayed in prestigious hotels, large shopping centers and organic specialty stores. ♦ International market: ○ Export of culinary oil to Germany by UCFA Tissaliwine. ○ Export of cosmetic oil by the Targanine network to BASF.

Source: Author's own elaboration based on findings.

5.2.2. Value chain upgrading processes influenced by livelihood upgrading

We now turn our attention towards the value chain upgrading strategies influenced by the implementation of the Phase 2 livelihood upgrading trajectories.

First, IP-C and IP-D influenced an **improving process and product** value chain upgrading process. As a case in point, we observed a **process upgrading** following the influence of IP-C. Specifically, we observed a change in the process of selecting the raw material for production following the technical support provided by IP-C:

> We instructed cooperative members were instructed to never use pre-digested[45] kernels which was a common practice especially in the years marked by drought where the raw material would become scarce. The scientific research provided evidence that argan oil extracted from these kernels was of a poorer quality and didn't meet quality standards imposed by the international market (N6, representative of the cooperative union UCFA Tissaliwine, February 2020).

IP-C further assisted in setting up a network of *'coopératives de concassage'* or crushing cooperatives in the villages where existing cooperatives were located to ensure the traceability of the produced argan oil[46]. Here, a growing number of women from these villages held usufructuary

[45] Pre-digested kernels are kernels from fruits used as fodder that have been processed through the digestive system of goats.

[46] Data found in document provided by N9 (administrative representatives of the SDA, February 2020) during our interview.

rights and worked on crushing the fruit's enclosed nutshell to extract the kernel. These crushing cooperatives were linked with federated cooperatives through formal contracts[47].

Next, we observed a **product upgrading** following the intervention of IP-C and IP-D. In response to the rising in both the demand for argan oil and the number of cooperatives in the region, the price of the raw material needed for production drastically increased. As a case in point, the price of argan fruits increased by 62%, while the price of argan oil increased by 25%[48] since the end of Phase 1. Additionally, thanks to the emergence of extensive scientific research targeting the advancement of argan oil's extraction, a screw press equipment that could extract the oil more efficiently was introduced to the market. As a case in point, the enhanced screw press could extract 2 liters of argan oil using only about 140 kg of argan fruits[49], as opposed to the necessary 240 kg needed in Phase 1. Consequently, the screw press could extract up to 50 liters of culinary argan oil and 100 liters of cosmetic argan oil per day[50] for cooperatives who could afford the equipment (Nill & Böhnert, 2006).

Last, we observed a **changing and adding functions** upgrading process. Specifically, we observed an **intersectoral upgrading** led by the Targanine EIG. This was a direct consequence of a new **alternative resourcing** of the EIG in collaboration with Professor Charrouf. More precisely, Professor Charrouf and her team at UM5 conducted additional scientific experiments to test for other argan tree by-products that could potentially be used as cosmetic ingredients for the skin (Evrard, 2010; BASF report, 2015). As such, the research team found that the argan tree leaves and the pressed-cake resulting from argan oil extraction had skin tightening and anti-aging chemical properties (BASF, 2015). To this end, the Targanine EIG has been supplying BASF with pressed-cake for a higher than market price (BASF, 2015). Finally, we couldn't find evidence in the overall data we collected for a functional upgrading process. Table *14* below synthesizes our findings of the value chain upgrading processes of small-scale producers in Phase 2.

[47] Data found in document provided by N9 (administrative representatives of the SDA, February 2020) during our interview.
[48] Data extrapolated from a price index graph documenting the increase of the argan's (oil and fruits) value between 1998 and 2007 in Aboudrare et al., 2009.
[49] Data extrapolated from values found in Nill & Böhnert (2006).
[50] When argan kernels are roasted, less oil can be extracted.

Table 14: Value Chain Upgrading strategies identified in Phase 2.

Upgrading Strategies	Findings
Improving process and product	♦ Upgrading of products: o Increase in product quality through better selection of raw material. o Increase in value of argan oil. ♦ Process upgrading: o Introduction of enhanced extraction machinery that increased efficiency of production. o Reorganization of the APN to ensure traceability of production and profits trickle down to the cooperatives.
Changing and adding functions	♦ Functional upgrading: N/A. ♦ Intersectoral upgrading: o Targanine supplying BASF with pressed-cake that results from argan oil extraction.

Source: Author's own elaboration based on findings.

5.2.3. Inclusionary processes of small-scale producers in the APN

In the previous sub-sections, we presented the different forms of livelihood upgrading trajectories and value chain upgrading processes we identified in Phase 2 through a methodical analysis of our data. We now turn our focus to the ways in which these forms of upgrading influenced the conditions for inclusion of small-scale producers within the APN.

First, we observed that state-subsidized cooperatives encountered **difficulties meeting certification regulations** that would enable them to advertise argan oil as a cosmetic product. When asked if they could label their argan oil as a cosmetic product, two cooperatives answered the following:

> We don't have any certificate that allows our argan oil to reach the international market as a cosmetic product. We only have the ONSSA certificate that proves our product is safe for consumption. (N2, President of Sidi Ouagag Aglou Cooperative, January 2020)

> I can't label my argan oil a cosmetic product. The way around it however, is to label the oil targeted for culinary usage as 'argan oil- roasted kernels' and the one targeted for the skin as 'argan oil- non-roasted kernels'. It doesn't allow us to meet the regulations of the international market, but it still passes the ONSSA certification that proves it is of great quality and safe for consumption, which is enough for customers here in Morocco. We all know the difference between the two so no issues there. (N10, Founder of the family-based Tafsut cooperative, January 2020).

Next, we found that IP-D **failed to provide capacity-building trainings** and **technical support** to the state-subsidized cooperatives it helped fund (Pereira & Santos, 2018). For instance, when their cooperative was established, N2 (President of Sidi Ouagag Aglou Cooperative, January 2020) indicated the following:

> Our members severely lacked in management skills and didn't have access to technical support. This created many problems for us especially when some of the equipment we purchased broke down because service technicians weren't readily available where we are now.

N5 (Regional Director of the 'Provincial Network for the Social and Solidarity Economy of Tiznit, January 2020) also explained that in addition to lacking management skills, state-subsidized cooperatives lack the capacity to '*have their production units and facilities up to code in order to obtain the necessary certificates and documentation needed to operate legitimately*'.

Moreover, IP-D **failed to connect state-subsidized cooperatives to financial institutions** (Pereira & Santos, 2018). As a case in point, N5 (Regional Director of the 'Provincial Network for the Social and Solidarity Economy of Tiznit, January 2020) stated that '*state-subsidized cooperatives had very limited access to financial capital where it was difficult to obtain bank loans to finance their projects*'. N2 (President of Sidi Ouagag Aglou Cooperative, January 2020) also indicated that their cooperative found it challenging to secure bank credits during the present phase. In addition to financial challenges, **the lack of infrastructures in rural areas remained a challenge** of inclusion during Phase 2. For instance, N5 (Regional Director of the 'Provincial Network for the Social and Solidarity Economy of Tiznit, January 2020) revealed that '*the lack of roads and running water made it difficult for remotely located areas to access any of the argan markets'*.

Additionally, we observed some **constraints of small-scale producers in accessing markets**. For instance, federated cooperatives were located around both major urban areas and along touristic trail between Essaouira and Agadir, while a high number of state-subsidized cooperatives were located in remote rural areas (Aboudrare et al., 2009). This could therefore be an indication that federated cooperatives had a much higher chance than state-subsidized cooperatives of accessing the domestic and international markets. Furthermore, we found that state-subsidized cooperatives were typically limited to the local market. As a case in point, despite its position in a village highly frequented by tourists and its proximity to the city of Tiznit, N2 (President of Sidi Ouagag Aglou Cooperative, January 2020) indicated that in Phase 2, their cooperative was nevertheless limited to selling locally: *"It was still difficult to reach the domestic market. For a while, we could only sell to tourists or directly to a handful of customers in Tiznit"*.

Our last point looks at the **power imbalances** we uncovered in our data. For instance, our interview with N8 (Representative of the AMIGHA association, February 2020), revealed that there was an MNC[51] based in France which had been extracting argan oil for at least a decade before the start of Phase 1. Consequently, N8 (Representative of the AMIGHA association, February 2020) further revealed that when first attempting to export argan oil as a cosmetic product to France, the UCFA Tissaliwine were blocked at the customs leading to frustration and discouragement on their parts:

> We were astounded and didn't understand why. Then the customs office informed us that we weren't allowed to use the name 'argan' on our products because they *[French MNC]* had already trademarked it. We were incredibly flustered but there was nothing we could do so they sent our products back to us.

Furthermore, N8 (representative of the AMIGHA association, February 2020) revealed that while argan fruits could only be collected by local communities with usufructuary rights, some companies[52] at the time could still acquire them for a fraction of the cost[53], import them to France and Spain and extract argan oil within their facilities. Consequently, most cooperatives were excluded from the international market and thus couldn't reap the benefits of the APN.

> Can you believe it? These companies had all the resources to meet quality standards, and they could produce much larger quantities of argan oil. They used to sell them with the label "Argan

[51] Interviewee asked for name to remain anonymous.
[52] Interviewee wouldn't mention names and felt more comfortable keeping it anonymous.
[53] Most likely directly from usufructuary holders wishing to generate some immediate income.

Oil- Made in France" or "Made in Spain". N8 (representative of the AMIGHA association, February 2020).

To this end, federated cooperatives adopted another **collective mobilizing** strategy and established the 'Moroccan Association for the Geographical Indication of Argan Oil' in January 2008. More commonly known as the AMIGHA[54], its primary mission was to push for the establishment of a Protected Geographical Indication[55] (PGI) for argan oil. N8 (representative of the AMIGHA association, February 2020) explained that in order to establish a PGI for argan oil, the first step needed was to ban the export of argan kernels. To this end, the elected representatives of the AMIGHA approached state officials in the Souss Massa region to lobby for the creation of a new legal framework and generate awareness around the issue of foreign actors taking undue credit of what is an ancestral heritage of the argan region:

> We first found out that this was a problem no one was aware of, except for very few actors involved in the argan sector. I remember we had to go and complain on the radio that we weren't allowed to use the word 'argan' on our products. Can you believe it? This is a product that has been in our culture for centuries and we weren't allowed to name it because of a foreign copyright. […] we were then able to meet with the president of the regional council, presented him with the problem and asked him if there was any way he could intervene on our behalf to stop the export of the raw material. Thankfully, he was extremely helpful and took our case to parliament where it was accepted and passed. This is the story of how the MAF passed the 26-05 legislation to ensure the recognition and protection of the '*produits du terroir'* produced in Morocco. (N8, representative of the AMIGHA association, February 2020).

Table *15* below summarizes the challenges to inclusion we identified in Phase 2:

Table 15: Challenges to the inclusion of local communities identified in Phase 2

Challenges to Inclusion	Findings
Meeting quality and certification standards	♦ State-subsidized cooperatives found it more challenging to meet international market certifications regulations than federated cooperatives.

[54] In French, AMIGHA stands for l'Association Marocaine de l'Indication Géographique de l'Huile d'Argan.
[55] https://ec.europa.eu/info/food-farming-fisheries/food-safety-and-quality/certification/quality-labels/quality-schemes-explained_en#pgi

	♦ State-subsidized cooperatives are unable to label their argan product as 'cosmetic oil'. Instead, they label it as 'argan oil from non-roasted kernels.' ♦ Fair trade certification was only available to Targanine network.
Capacity Building	♦ IP-D failed to provide capacity-building training to state-subsidized cooperatives. ♦ Lack of state-subsidized cooperatives in management skills. ♦ Difficulty of state-subsidized cooperatives to meet hygiene regulations.
Access to Credit	♦ State-subsidized cooperatives had limited access to financial capital: bank loans are still difficult to obtain in Phase 2.
Availability of technology inputs and infrastructure	♦ State-subsidized cooperatives had limited access to technical support.
Constraints in accessing markets	♦ Federated cooperatives had a higher chance to access domestic and international markets than state-subsidized cooperatives. ♦ State-subsidized cooperatives are generally located in remote areas and therefore find it more challenging to access different market channels.
Power Imbalances	♦ Federated cooperatives couldn't export cosmetic oil because a foreign MNC had a copyright on argan oil. ♦ The export of argan kernels was legal and therefore value-added activities were undertaken outside of the argan region.

Source: Author's own elaboration based on findings.

5.3. Phase 3: Pursuit of Authenticity and Proliferation of Actors in the APN (2009-2015)

5.3.1. Livelihood upgrading

IP-E: The Argan PGI Certification

Phase 3 marked the introduction of a PGI certification to cement the authenticity of the argan oil produced by small-scale producers internationally and saw a proliferation of actors in the APN. In this phase, we identified the implementation of one IP as a livelihood upgrading trajectory. In this respect, we refer to IP-E as the collaboration between the AMIGHA and the Regional Federation of Agricultural Cooperatives in Aquitaine (RFACA). It is important to note that IP-E was a direct result of the collective mobilizing strategy led by federated cooperatives in the previous phase; that is the establishment of AMIGHA and the lobbying of the local government to pass the 26-05 legislation.

To this effect, IP-E aimed to overcome the export challenges faced by cooperatives at the face of foreign MNC competition and as such, pushed for the establishment of a Protected Geographical Indication[56] (PGI) for argan oil. Furthermore, IP-E itself is a form of a **collective mobilizing** bottom-up response and is therefore the only livelihood upgrading trajectory we identified that was implemented from the bottoms up by the federated local producers of the argan region. Consequently, we observed the adoption of two additional **alternative resourcing** bottom-up response to help implement IP-E. First, the elected representatives of federated cooperatives reached out to the regional government and succeeded in organizing a meeting with the EU's ambassador in Rabat to seek additional financial funding[57]. To secure funding, the cooperative representatives prepared an extensive presentation where they presented the growing success of the federated system program and showed what was still needed to reap the full benefits of the

[56] https://ec.europa.eu/info/food-farming-fisheries/food-safety-and-quality/certification/quality-labels/quality-schemes-explained_en#pgi

[57] Data found in documents provided by N8 (representative of the AMIGHA association, February 2020) during our interview.

APN[58]. The second alternative resourcing strategy we observed was the AMIGHA seeking the partnership of the Regional Federation of Agricultural Cooperatives in Aquitaine (RFACA) to benefit from the organization's experience in implementing a PGI certification[59].

Subsequently, IP-E secured **financial support** from the EU in the sum of 2 million MAD (around 285,000 CAD) to AMIGHA to assist them with the implementation of the PGI in the argan region[60]. In terms of **organizational support**, N8 (representative of the AMIGHA association, February 2020) explained that the AMIGHA relied on the RFACA for capacity-building training:

> Since the PGI sector was relatively new in Morocco, we turned to the EU again for training to make sure we were doing things the right way. Morocco was actually the first country in Africa to seek the PGI certification to protect its endemic products. We therefore partnered with the Aquitaine region in France, where experts from the RFACA were sent here to help us develop the necessary documents for argan cooperatives to apply for the certification.

IP-E provided additional organizational support to AMIGHA and argan cooperatives by appointing NORMACERT in 2009 as the official and sole certifying body of IGP argan in Morocco. This organization is accredited by the EU and can also award eligible cooperatives with the BIO label.[61] NORMACERT also ensures that all traceability procedures have been enforced by each cooperative seeking to acquire the PGI/BIO certification[62].

Furthermore, IP-E provided **technical support** to cooperatives. As a case in point, the IP helped enhance the traceability process to ensure that the produced argan oil is of a high quality. N8 (representative of the AMIGHA association, February 2020) explained this process as follows:

> We designated all the municipalities where argan trees were located and assigned each one of them with specific codes. Then, we created subcodes to identify every harvest zone

[58] Data found in documents provided by N8 (representative of the AMIGHA association, February 2020) during our interview.

[59] Data found in documents provided by N8 (representative of the AMIGHA association, February 2020) during our interview.

[60] Data found in documents provided by N8 (representative of the AMIGHA association, February 2020) during our interview.

[61] Idem.

[62] Idem.

> within each municipality so that we can trace the exact origin of each argan fruit. Traceability lists also included: the exact time argan kernels were extracted from the fruit, the exact date and the duration of how long argan fruits were dried, the exact time a batch of argan kernels were grinded in the extraction process. In doing so, we gave particular attention to every single step of the argan oil extraction process so that we can guarantee its traceability and therefore its premium quality to our consumers.

IP-E gave further technical support where the AMIGHA provided a support service to each eligible cooperative seeking to obtain the PGI certification. N8 (representative of the AMIGHA association, February 2020) explained *"we provide expert help to a cooperative and help them fill out all the documentation necessary to submit the application. This support is provided free of charge to cooperatives and can last anywhere between 2-3 months*".

Also, in terms of **educational support**, Partnership E helped provide traceability training courses to cooperatives. It also specially prepared a small graphic novel to visually explain to cooperative members how the production of argan oil must be undertaken to obtain the PGI[63]. Last, IP-E influenced a **macro cultural discourse change**. Specifically, the PGI certification enabled cooperatives in the argan region to reclaim cultural ownership over argan oil as a product that is uniquely theirs. In this way, the authenticity of cooperative members as the official global producers of argan oil was further strengthened. Table *16* below illustrates the support services IP-E implemented to assist all cooperatives in the argan region obtain a PGI certification.

Table 16: Synthesis of support services provided by IP-E in Phase 3.

Phase 3 IP Support services	**IP-E** (2009-2015)
Financial support	♦ 2 million MAD assistance from EU to implement the PGI certification in the argan region.
Technical support	♦ Assistance in further enhancing the traceability process of production as evidence of a high quality argan oil.

[63] Data found in documents provided by N8 (representative of the AMIGHA association, February 2020) during our interview.

Organizational support	♦ Knowledge transfer from RFACA to AMIGHA for capacity-building training. ♦ Assistance to establish NORMACERT as an official certifying body to further prove the authenticity of the PGI certification. ♦ Establishment of BIO label as well to further strengthen the position of eligible cooperatives in the argan market.
Educational support	♦ Assistance with providing traceability training courses to cooperatives. ♦ Creation of educational material in the form of booklets, graphic novels and instructional manuals to further educate cooperative members on production requirements of PGI certification.
Macro cultural discourse change	♦ Strengthening the position of cooperatives as the authentic global producers of argan oil.

Source: Author's own elaboration from findings.

Improving value chain coordination:

First, we observed an **improving value chain coordination** process. As a case in point, we found that IP-E facilitated the introduction of a **horizontal coordination**[64]. Specifically, IP-E influenced the emergence of new producer associations that targeted specific aspects of the development of the APN. Here, in addition to the existing AMIGHA and the ANCA that integrates federated cooperatives, three new producer associations were established in 2011 with the Moroccan government's assistance. First, the 'National Federation of Usufructuary Rights Holders' (NFAU) was created to integrate the usufructuary rights holders located in the eight provinces of the argan region. As such, the NFAU ensures that holders of usufructuary rights have an active voice in the APN and are thus included in decision-making processes related to future livelihood upgrading interventions that could be implemented in the region. Next, we observed the establishment of the 'Moroccan Association of Argan Producing Companies' (MAAPC) that integrates the local SMEs that have joined the APN following the rising global demand of argan oil. The MAAPC was also established to continuously cooperate with argan cooperatives and as such contribute to enhancing

[64] The data we used to construct the narrative of horizontal coordination was found in documents provided to us by N8 (representative of the AMIGHA association, February 2020) during our interview.

their capabilities as technologies evolve and demand for argan oil increases over time. Last, the '*Moroccan Interprofessional Federation of the Argan Sector*', locally known as FIMARGANE, integrates the argan producer associations in the region; that is AMIGHA, ANCA, NFAU and MAAPC; and was as such established with the primary mission of ensuring the inclusion of all local argan oil producers in the APN.

We then observed a **vertical coordination** in the current phase influenced by IP-E. Specifically, our data revealed three market channels of argan oil: local, domestic and international. As a reminder, we referred in the previous phase to the local market as the market operating within the boundaries of the argan region, domestic as the market operating outside the argan region but within national boundaries, and international as the market operating beyond national boundaries.

First, we observed that the PGI certification enabled the local market to grow. As N8 (representative of the AMIGHA association, February 2020) has revealed:

> It helped with the growth of the tourism sector since the rise in popularity of argan attracted a high number of tourists who will come directly to this region so that they can buy authentic argan oil from cooperatives who have the label.

In the domestic market, N1 (Professor at UM5 specializing in rural development, January 2020) indicated that the *'PGI certification enabled eligible cooperatives to sell their products nationwide and retain the profits without any intervention from intermediary distributors'.* Moreover, the PGI certification further increased the popularity of argan oil produced by cooperatives. In fact, numerous federated cooperative members toured the country to present their products in agricultural forums with the help of the Moroccan government[65]. Finally, N1 (Professor at UM5 specializing in rural development, January 2020) indicated that following the increase in popularity of argan oil in the country following the PGI certification, the state offered further assistance to all cooperatives specializing in 'produits du terroir' by implementing a law seeking to achieve "*un commerce équitable mondial*":

> This law was put in place to ensure that malls, supermarkets or any big shopping center must facilitate the access to "produits du terroir" that were produced by rural cooperatives.

[65] Data found in documents provided by N8 (representative of the AMIGHA association, February 2020) during our interview.

> To this end, shopping centers are obligated to sell these products for "free", meaning they can't ask for a share of the profits generated from sales. N1 (development expert and professor at UM5, January 2020)

N2 (President of Sidi Ouagag Aglou Cooperative, January 2020) indicated that their cooperative has taken advantage of this law: *'There is a small supermarket in the city of Tiznit called Izdihar that helps distribute some of our argan products, and they don't charge us a fee for it'*. Finally, we observed that the PGI certification enabled eligible cooperatives to export their products directly to the international market. As a case in point, N6 (a representative of the cooperative union UCFA Tissaliwine, February 2020) indicated that the UCFA Tissaliwine could now create direct linkages with foreign MNCs[66] that specialize in beauty products. Moreover, the certification enabled them to participate in international fairs such as the '*Journées Portes Ouvertes'* in Bordeaux in 2010 and the Berlin Green week and the Paris International Agricultural Show in 2011[67]. This further *'increased the popularity of argan oil abroad and raised awareness of the importance of purchasing products where the packaging indicates the PGI label'* (N8, representative of the AMIGHA association, February 2020). Table *17* below summarizes the improving value chain coordination strategies we observed in Phase 3.

Table 17: Summary of Phase 3 value chain coordination improving.

Value chain coordination strategy	Findings
Horizontal Coordination	♦ Creation of producer unions that integrate different types of local producers as a means to ensuring their inclusion within the APN.
Vertical Coordination	♦ Local market: o Cooperatives have attracted a larger number of tourists since the introduction of the PGI certification. ♦ Domestic market: o The PGI certification has directly linked eligible cooperatives to the domestic market and as such impeded the intervention of intermediary distributors.

[66] Interviewee wished that names of MNCs remain anonymous.
[67] Data found in documents provided by N8 (representative of the AMIGHA association, February 2020) during our interview.

	○ Increased presence of cooperative producers in national agricultural forums and fairs. ○ With the assistance of a legislation implemented by the Moroccan State, shopping centers are now required to display the products of eligible cooperatives without taking a share of sales profits. ♦ International market: ○ PGI cooperatives are now able to directly export their products and establish direct linkages with foreign MNCs. ○ Increased presence in international agricultural fairs to promote the argan oil produced by PGI cooperatives.

Source: Author's own elaboration based on findings.

5.3.2. Value chain upgrading processes influenced by livelihood upgrading

We now turn our attention to the value chain upgrading processes influenced by the implementation of the Phase 3 livelihood upgrading trajectory. First, IP-E influenced an **improving process and product** value chain upgrading process. In this respect, we observed a **product upgrading** where the implementation of the PGI certification subsequent rigorous traceability procedures led to the production of a higher quality argan oil. Consequently, the value of argan oil produced by eligible cooperatives increased since Phase 2. As a case in point, N1 (Professor at UM5 specializing in rural development, January 2020) explained that for eligible cooperatives*:*

> Once the PGI/BIO label has been added to their packaging, the value of argan oil increased. For instance, a 250 ml bottle of argan oil for cosmetic purposes sold within a PGI cooperative to individual customers could cost upwards to 500 MAD (65 CAD).

Moreover, the selling price of culinary argan oil from a cooperative would average 200 MAD per liter (26 CAD) but would sell for 20 times the original price in high-end restaurants internationally (Aboudrare et al., 2009). We however couldn't find through our data evidence for a process upgrading that evolved beyond its state in Phase 2. We then observed a **changing and adding functions** value chain upgrading process. In fact, Phase 3 marked the emergence of the first

functional upgrading in the APN. In this sense, N8 (representative of the AMIGHA association, February 2020) explained that:

> The establishment of the PGI certification ensured that value-added activities were done in the argan region and involve the local communities, since the export of argan kernels and the extraction of argan oil outside of the country had been banned.

This further solidified the cooperatives' position within the APN as producers of argan oil who could reap the benefits of the network rather than be mere raw material suppliers to larger MNCs abroad. Last, we also observed that the PGI certification created favorable conditions for the emergence of an **intersectoral upgrading** within both state-subsidized and federated cooperatives. As a case in point, in addition to producing cosmetic and culinary argan oil, many cooperatives diversified their range of argan products. When asked what other products they produce using argan oil, these cooperatives had the following answers:

> We have a small garden where we plant aromatic and medicinal plants that we then use with argan oil to create a variety of products such as: traditional soap to exfoliate the body, massage oils, natural shampoos and conditioners. (N3, Cooperative member at Tazouknite cooperative, January 2020).

> We make *amlou*[72], face serums, traditional body soaps. We even make a natural shampoo! (N2, President of Sidi Ouagag Aglou Cooperative, January 2020).

> In addition to cosmetic and culinary argan oil, we also make *amlou*, body oils made from argan and mixed with essential oils endemic to the region. (N4, President and Founder of Aoumerkt Cooperative, January 2020).

Table *18* below synthesizes our findings of the value chain upgrading processes of small-scale producers in Phase 3.

Table 18: Value Chain Upgrading strategies identified in Phase 3.

Upgrading Strategies	Findings
Improving process and product	♦ Upgrading of products: o Increase in price of argan oil due to introduction of rigorous traceability procedures following PGI certification.

[72] A very popular snack in Morocco and the equivalent of peanut butter. Made by grinding almonds into a paste and pouring argan oil onto it.

	♦ Process upgrading: N/A.
Changing and adding functions	♦ Functional upgrading: o PGI certification ensured that eligible cooperatives performed value-added activities and obtained their fair share of the profits. ♦ Intersectoral upgrading: o Product differentiation achieved by federated and state-subsidized cooperatives to further increase their revenues.

Source: Author's own elaboration based on findings.

5.3.3. Inclusionary processes of small-scale producers in the APN

In the previous sub-sections, we presented the different forms of livelihood upgrading trajectories and value chain upgrading processes we identified in Phase 3 through a methodical analysis of our data. We now turn our focus to the ways in which these forms of upgrading influenced the conditions for inclusion of small-scale producers within the APN.

The first challenge our analysis uncovered is the **difficulty of meeting certification standards**. While the PGI certification made it possible for cooperatives to obtain a certification that is internationally accredited, we have observed however that it is still difficult to obtain other international certifications such as Fair Trade. As a case in point, we found in our analysis of secondary data that many SMEs located in the argan region and specializing in the extraction of argan oil have multiple international certifications, some despite not having the PGI certification. For instance, we found that *Zit*[73] *Sidi Yassine*, a small SME operating in Essaouira has obtained numerous international certifications such as EcoCert, Qualité France, BioSuisse, and AB Agriculture Biologique[74]. Another example is *Argan Aouzac* with international certifications such as Fair Trade EcoCert, Fair for Life, USDA Organic and Pays de l'Union Européenne[75]. With the

[73] *Zit* is the word for 'oil' in the Moroccan dialect.
[74] https://www.sidiyassine.com/
[75] https://www.argane-aouzac.com/

exception of the Targanine EIG who has obtained both a Fair Trade and USDA Organic certifications, and the UCFA Tissaliwine who has obtained the EcoCert label, most cooperatives don't have access to these international certifications.

Moreover, we have observed that federated cooperatives are more likely to obtain the PGI argan than state-subsidized cooperatives. As a case in point, N8 (representative of the AMIGHA association, February 2020) revealed that '*out of the 300 argan cooperatives currently existing only 50 have obtained the PGI certification, all of which were federated'*. When asked, N2 (President of Sidi Ouagag Aglou Cooperative, January 2020) and N3 (Cooperative member at Tazouknite cooperative, January 2020) both indicated that their cooperatives, which are state-subsidized, didn't have the PGI certification yet. Furthermore, N8 (representative of the AMIGHA association, February 2020) also indicated that there are some instances where local small-scale producers may exclude themselves from the APN:

> While it can take usually around 2 to 3 months for cooperatives who are really serious and determined to obtain the PGI, there are a lot of cooperatives who can make the process really arduous. Some of them really just don't want to work and expect us and the State to do everything for them. There is only so much we can do! Everybody chipped in: the state offered funding, international organizations helped with the training, we help with the certification process and yet there are a lot of them who refuse to take it seriously. There are some cooperatives who had funding to build their facilities, buy machines and were ready for production and yet they aren't operating. In 2009 we were only able to help 13 cooperatives acquire the PGI. N8 (representative of the AMIGHA association, February 2020).

Next, we found that state-subsidized cooperatives continue to **lack capacity-building skills**. For instance, N2 (President of Sidi Ouagag Aglou Cooperative, January 2020) indicated that their cooperative members are *'lacking in marketing and management skills'*. Additionally, N5 (Regional Director of the 'Provincial Network for the Social and Solidarity Economy of Tiznit, January 2020) revealed '*that typically, state-subsidized cooperatives were still lacking the skillset that would enable them to properly promote and advertise their products'*. Moreover, we found that many cooperatives have stopped offering literacy classes for its members. When asked, N2 (President of Sidi Ouagag Aglou Cooperative, January 2020) and N4 (President and Founder of Aoumerkt Cooperative, January 2020) gave the following answers:

> We used to offer adult literacy classes, but not anymore. It can be a little challenging for the cooperative members to keep a fixed schedule when they have so much else to care for. N2 (President of Sidi Ouagag Aglou Cooperative, January 2020).

> We don't offer adult literacy classes anymore. We did at the beginning, but it was extremely difficult convincing some women to keep learning because even though they are motivated at first, they eventually get tired and find it difficult to learn so they stop coming altogether. We had to stop offering these classes because they became a waste of our financial capital. (N4, President and Founder of Aoumerkt Cooperative, January 2020).

Furthermore, our interviews with N10 (Founder of the family-based Tafsut cooperative, January 2020) and S12 (Founder of an artisanal tailoring cooperative, January 2020) revealed that most individuals around the argan region can't afford the equipment necessary for production. N10 (Founder of the family-based Tafsut cooperative, January 2020) further explained that '*an individual or a family had to register as a cooperative in order to gain external funding to purchase equipment, otherwise it was almost impossible to afford the equipment*'.

In terms of **constraints to access to markets**, we found that state-subsidized cooperatives are typically limited to the local market. As a case in point, N5 (Regional Director of the 'Provincial Network for the Social and Solidarity Economy of Tiznit, January 2020) indicated that because of the previously indicated challenge in obtaining certifications, *'numerous state-subsidized cooperatives are unable to sell their products in domestic and international markets'*. According to N2 (President of Sidi Ouagag Aglou Cooperative, January 2020), '*most cooperatives rely on creating direct linkages with customers in order to distribute their products and since it's difficult finding new customers, it becomes very difficult to stay in business*'. Moreover, a state project has been axed on helping cooperatives access the market digitally and find new customers but it's still lacking:

> There is still a lot to do to help all cooperatives reach the digital market and engage in e-commerce. That is something we are helping them with but a lot still needs to be done. N5 (Regional Director of the 'Provincial Network for the Social and Solidarity Economy of Tiznit, January 2020).

Additionally, we found that state-subsidized cooperatives are subject to fluctuations in demand of argan oil. As a case in point, N3 (Cooperative member at Tazouknite cooperative, January 2020) indicated that the cooperative has been finding it challenging to sell their argan products especially in the domestic market and has consequently started harvesting alternative lucrative plants such as

the moringa plant as well. When asked why the cooperative has turned to making moringa products, our informant answered the following:

> Well Argan isn't as popular as it used to be, especially in Morocco. It has actually become difficult for us to sell as much argan as we used to in the past. Trust me, if we were reliant on selling argan oil we wouldn't be in business for very long. (N3, Cooperative member at Tazouknite cooperative, January 2020).

We have further found that other state-subsidized cooperatives have also encountered this challenge and have therefore turned to making products other than argan oil or argan-derived products as well. For instance, during our visit of N2's (President of Sidi Ouagag Aglou Cooperative, January 2020) cooperative, we observed that they also specialize in making couscous grains and different types of flour. Therefore, this action can be considered an **unintentional downgrading** by the state-subsidized cooperatives. In order to remain in business, the cooperative members produce other lucrative plants or highly consumed foods on the side to keep generating a revenue, while using their foothold in the APN to attract customers.

Next, we observed numerous **power imbalances** within the APN during the current phase. First, we found that cooperatives, both state-subsidized and federated, were experiencing increased competition from the private sector. In the following, we refer to the private sector as privately-owned SMEs specializing in argan oil production and operating within the argan region. According to N6 (a representative of the cooperative union UCFA Tissaliwine, February 2020), these SMEs had the resources to achieve economies of scale and severely compete with cooperatives on the market:

> After 2008, the private sector entered the market. This was the first time that cooperatives had ever experienced competition and were ill-equipped to face it. Because of this, they couldn't grow anymore, which meant that they couldn't get new customers. The machines used by cooperatives didn't evolve either. For instance, it took about 2 to 2,3 kg of argan kernels to be able to extract 1 liter of oil. Competitors on the opposite hand were able to develop machines that only required 1,85 kg, which enabled them to save costs and produce more argan oil than cooperatives.

Additionally, we found that the private sector has a much larger production capacity than cooperatives. As a case in point, N11 (Employee at EFAS, February 2020) indicated that their SME '*had the total capacity to produce up to 18 tonnes of argan oil a month'*. Our analysis of

secondary data also revealed that the previously indicated *Zit Sidi Yassine*[76] and Argan Aouzac[77] had a total production capacity that could reach 5 tonnes of argan oil a month. Moreover, N7 (Expert of cooperative development at the OCD, February 2020) demonstrated that '*[…] all cooperatives, both federated and state-subsidized, only make up between 10% and 12% of argan oil sales while the rest of the market is captured by the private sector*'. N6 (a representative of the cooperative union UCFA Tissaliwine, February 2020) further indicated that in total, '*the private sector exported around 700 tones in 2014*'. Given that only federated cooperatives have the resources to reach the international market, N6 (a representative of the cooperative union UCFA Tissaliwine, February 2020) revealed that these cooperatives '*exported around 120 tonnes of argan oil in the same year'*. Furthermore, we observed that some SMEs operating in the argan region were eligible to obtain the PGI certification as they were integrated in the FIMARGANE:

> While private operators are required to pay an annual fee to keep the PGI certification[78], they could nonetheless apply and be awarded the certification in addition to the other international certifications they also had access to. (N8, representative of the AMIGHA association, February 2020)

Another power imbalance challenge we observed in this phase was the proliferation of intermediaries along the APN. As a case in point, N1 (Professor at UM5 specializing in rural development, January 2020), revealed that the APN is suffering from the intervention of intermediaries who monopolize the argan raw material market and stand between cooperatives and end-consumers. N1 (Professor at UM5 specializing in rural development, January 2020) also indicated that these intermediaries would generate most of the profits of the APN at the expense of cooperative members:

> The APN has become is heavily controlled by these intermediaries who are using cooperatives as basic producers of argan oil who almost never get any share of the actual profits. This is why we also see that most cooperatives are still operating in a very traditional way with little room for innovation in terms of product variety or machinery. Also, the intermediaries buy argan oil from the cooperatives for a price that usually averages to 200 MAD/ liter[79]. If I remember correctly, they sell it back to the foreign companies for 300 Euros/liter[80] which could explain why you can find a lot of expensive products made from argan oil abroad.

[76] https://www.sidiyassine.com/
[77] https://www.argane-aouzac.com/
[78] As opposed to eligible cooperatives who had access to this process for free.
[79] Around 25 CAD.
[80] Around 415 CAD.

Moreover, we have observed that these intermediaries were considered invisible actors by many of our interview participants. For instance, N7 (expert of cooperative development at the OCD, February 2020) indicated that intermediaries are difficult to define. N6 (a representative of the cooperative union UCFA Tissaliwine, February 2020) demonstrated that these intermediaries '*could be anyone'*. Also, when asked who exactly intermediaries were, N1 (Professor at UM5 specializing in rural development, January 2020) replied: *"It's actually a very good question because now that I think about it, we don't really know*." Furthermore, we found through our interview with N3 (Cooperative member at Tazouknite cooperative, January 2020) revealed that tour guides could act as intermediaries:

> You know sometimes we find ourselves in conflict with some tour guides who seek to make profits by trying to get us to overcharge the tourists they are accompanying. They try to convince us by promising we would split the profits and that it's a "win-win" situation. This is a terrible situation because this could make tourists lose trust in the authenticity of cooperatives, and since most our sales are oriented towards them, we could eventually go out of business.

Additionally, we have found that many state-subsidized cooperatives are trapped in their dealings with intermediaries as an **unintentional downgrading** response to the following challenges:

> A lot of cooperatives, since they lack the financial means to set up small structures to develop cosmetic productions started selling their produce to these intermediaries who send their trucks to gather all the produce from these cooperatives, especially the ones that are remotely located in the mountains. Like I said, the average price that these intermediaries are selling to the cosmetics enterprises is around 300 euros/liter. This shows you the difference between the earnings of the local cooperatives and intermediaries. N1 (Professor at UM5 specializing in rural development, January 2020).

In a similar vein, N1 (Professor at UM5 specializing in rural development, January 2020) posited that intermediaries were an important reason state-subsidized cooperatives couldn't export to the international market. In fact, the same interviewee revealed that:

> Many MNCs such as Garnier or Oriflamme didn't directly deal with cooperatives but would actually deal with intermediaries who would supply their demand in argan oil. Since many of these cooperatives lacked financial means, they had to resort to selling their production to intermediaries for very little profit.

N1 (Professor at UM5 specializing in rural development, January 2020) further indicated that some intermediaries could take advantage of some cooperatives in a more drastic way:

> Sometimes, there are some intermediaries that would use a struggling cooperative as a front to show international customers or MNCs that they would engage in helping local communities, but all profits actually go to intermediaries. Customers are fooled into believing they are engaging in fair trade practices when none of the profits trickle down to these cooperatives who are barely paid a fair wage.

Moreover, while some intermediaries are invisible actors, some can be resellers located in large urban areas outside of the argan region:

> We know we suffer a little in the APN. For example, we sell argan oil to organic shops in urban centers for its fair price, which is 35 MAD a bottle of 100 ml (5 CAD). In those boutiques however, the same product can be sold at 45 MAD (6.6 CAD) or more depending on their location and the clientele they cater to. The profits that are generated from these sales are not returned to the cooperatives (N3, Cooperative member at Tazouknite cooperative, January 2020).

Next, in addition to the divide between state-subsidized and federated cooperatives, we observed an even further divide amongst federated cooperatives. As a case in point, our data revealed not all federated cooperatives have access to the same resources. As previously indicated, the Targanine EIG is the only network of cooperatives to have obtained the Fair Trade certification. Specifically, only six cooperatives are part of the Targanine network. The scale of this network is therefore too limited for any of its benefits to actually trickle down to the remaining small-scale producers involved in the APN. Last, we found that gender inequality remains an issue through Phase 3. As a case in point, N3 (Cooperative member at Tazouknite cooperative, January 2020) indicated that their cooperative has find it challenging to keep members:

> As of right now, we have 14 women working with us. Their number used to be higher, but they unfortunately had to leave. They each had their own issue: some had husbands who were just opposed to the idea of their wives working, others had nobody to take care of their children while they were away. (N3, Cooperative member at Tazouknite cooperative, January 2020).

Table *19* below summarizes the challenges to inclusion we identified in Phase 3:

Table 19: Challenges to the inclusion of local communities identified in Phase 3

Challenges to Inclusion	Findings
Meeting quality and certification standards	♦ Most cooperatives, both state-subsidized and federated, don't have access to the international certifications the argan producing SMEs operating in the region have obtained. ♦ Federated cooperatives are more likely to obtain the PGI certification than state-subsidized cooperatives. ♦ Some local communities chose to exclude themselves from the PGI certification process.
Capacity Building	♦ Enduring lack of state-subsidized cooperatives in management and marketing skills; inability to properly advertise products. ♦ Literacy classes are no longer offered to cooperative members.
Access to Credit	N/A.
Availability of technology inputs and infrastructure	♦ Equipment is too expensive for local communities to acquire without financial grants.
Constraints in accessing markets	♦ State-subsidized cooperatives are typically limited to the local market and find it difficult to find new customers. ♦ Difficulty of state-subsidized cooperatives to remain competitive on domestic market because of fluctuations in demand for argan oil by national consumers.
Power Imbalances	♦ Increased competition from the private sector: o SMEs operating in the argan region were also eligible to obtain the PGI certification and had the capital to achieve economies of scale. ♦ Proliferation of intermediaries along the APN which further challenge the inclusion of small-scale producers. ♦ Enduring gender inequality issues during Phase 3.

	♦ Local communities could no longer afford to buy argan oil because of the drastic increase in price since Phase 1.

Source: Author's own elaboration.

5.4. Chapter conclusion

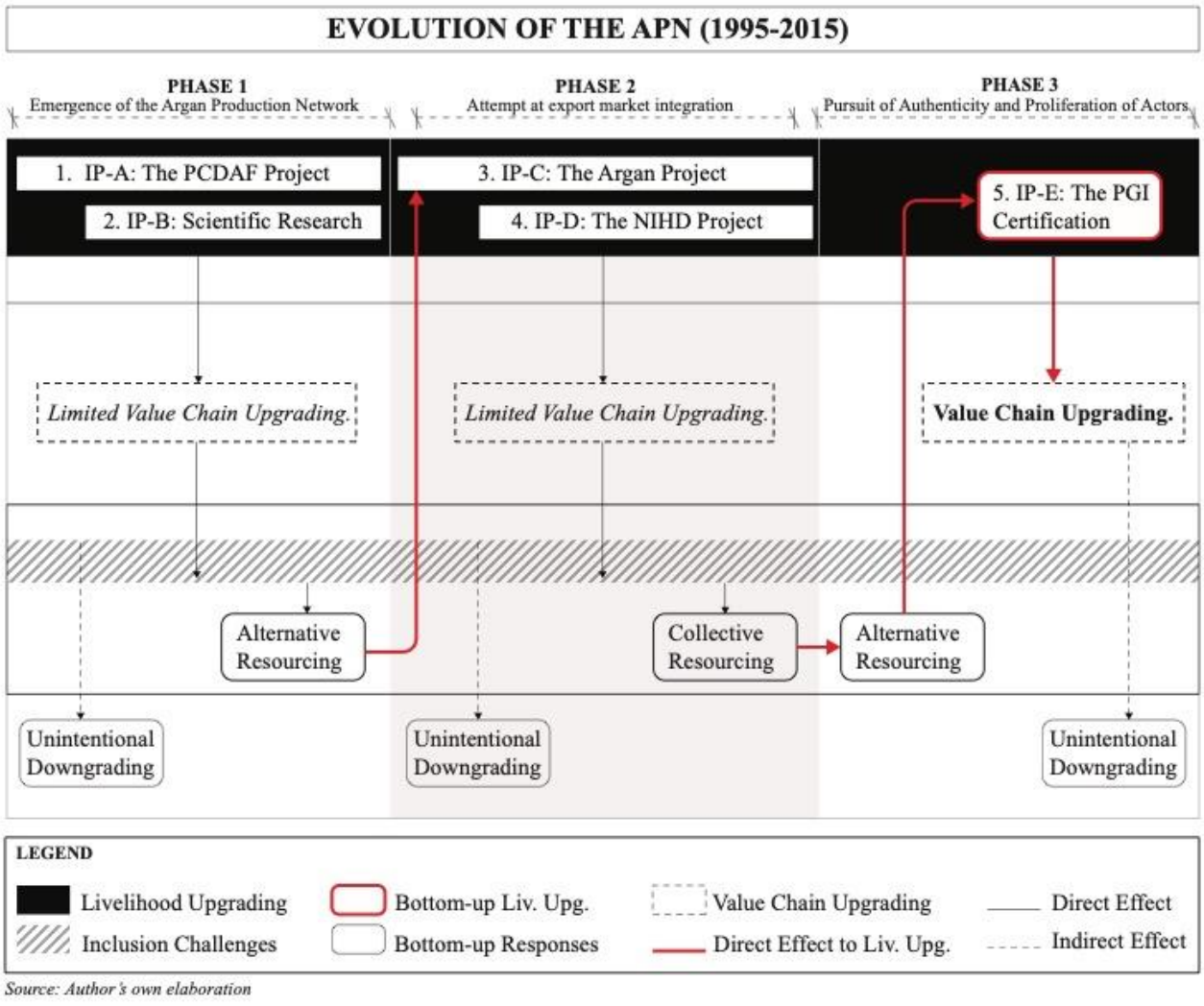
In conclusion, we constructed a detailed narrative composite of the evolutionary process of the APN using the data analysis strategies we previously outlined. We now summarize our findings in the present sub-section.

In Phase 1, two livelihood upgrading strategies (IP-A and IP-B) were implemented in the argan region. These strategies enabled local producers to achieve a limited value chain upgrading. More specifically, while the livelihood interventions influenced an improving of value chain coordination, an improving of process and product and intersectoral upgrading, they failed however to achieve functional upgrading. The emergence of the observed value chain upgrading strategies in turn influenced several challenges to the inclusion of local producers. Consequently, we observed many local actors who were ineligible to become cooperative members adopt an unintentional downgrading response to remain included in the APN. On the opposite hand, producers in cooperatives adopted an alternative resourcing approach where they turn to the head of the scientific research on argan oil to provide evidence of its cosmetic benefits and subsequently access the international market.

In Phase 2, two additional livelihood upgrading strategies (IP-C and IP-D) were implemented in the argan region. IP-C was implemented to reorganize the emerging APN in a way that could directly link the argan cooperatives to the international market. IP-D, on the opposite hand, was implemented as a government initiative and failed to provide the same level of capacity building skills needed for additional local actors to successfully run a cooperative. Both interventions however mutually influenced an improving of process and product and intersectoral upgrading. However, neither intervention was successful in influencing the functional upgrading of the argan producers. Similarly to Phase 1, the emergence of these value chain upgrading strategies also influenced several challenges to the inclusion of local producers. This led federated cooperatives to adopt a collective mobilizing response to advocate for the legal ban of argan kernels export.

In Phase 3, the federated cooperatives further adopted an alternative resourcing to seek additional funding in order to implement the PGI certification. These cooperatives further sought alternative resourcing to gain the skills they needed to train their members to follow the new production standards imposed by the PGI. These bottom-up responses were essential in influencing the bottom-up livelihood upgrading intervention of IP-E, which was further instrumental in influencing the value chain upgrading of local producers. However, this bottom-up approach still influenced the emergence of several inclusion challenges, which in turn led many cooperatives to adopt an unintentional downgrading response. Figure *6* below illustrates a synthesis of our findings on the evolution of the APN.

Figure 6: Synthesis of our findings



Source: Author's own elaboration

Chapter 6 - Discussion

This research draws from the conceptual apparatus of the GPN and VCD literatures and explores how value chain development initiatives influence the livelihood upgrading and the inclusionary processes of small-scale producers in the APN. To do so, we applied our conceptual framework in each of the phases of the APN we defined and identified the challenges to the inclusion of producers that emerged over time following a livelihood upgrading intervention. In each phase, we observed that livelihood upgrading did in fact influence the value chain upgrading of producers. However, unlike claims of the extant VCD literature, value chain upgrading alone was insufficient to influence the inclusion of these local actors in the APN. As our analysis has shown, the inclusion of local producers is a cyclical, iterative process that occurs following resourcing actions undertaken by local producers. To this end, we present our discussion in three sections. In the first section, we indicate how our findings contribute to the upgrading limitations we identified in the GPN and VCD literatures. Next, we present our elaborated analytical framework. Last, we outline the practical implications of our research to the actors involved in the APN.

6.1. Contribution to upgrading limitations in the GPN and VCD literatures

In what follows, we show how this research contributes to the cognate GPN and VCD literatures. To do so, we bridged a divide between the two literatures (Vicol et al., 2019) and identified livelihood upgrading as a VCD intervention. This offered us a different theoretical lens through which to examine the livelihood upgrading concept, especially given the firm-centrism of the GPN framework which narrowly examines the livelihood upgrading of producers from the perspective of lead firms.

First, livelihood upgrading is an emerging concept in the GPN scholarship. Previous research has been restricted to examining livelihood upgrading in the coffee sector (Neilson, 2019) and existing studies typically focus on investigating the concept within the context of smallholder producers who are integrated in captive value chains as suppliers of lead firms (Vicol et al., 2018; Vicol et al., 2019; Neilson, 2019). Our research therefore helps inform these limitations in the GPN literature. As a case in point, our choice of the APN case study allows the application of livelihood

upgrading in an agricultural context that greatly differs from the coffee sector, which helps extend the scope of application of the concept.

The APN case study expands the theoretical lens of livelihood upgrading as it allows its examination against the backdrop of an agricultural context that is embedded in a complex rural production landscape that was reconfigured following a succession of overlapping intervention schemes. In this sense, the APN reflects the reality of rural landscapes in the Global South and therefore offers a more appropriate contextual setting to investigate livelihood upgrading. For instance, livelihood upgrading was either implemented by the Moroccan government, international organizations, or the argan producers themselves. Even more, the argan rural landscape has also known sequential government interventions that date back to the colonial administration at the turn of the 20th century (Chapter 4). Therefore, it is fair to postulate that the APN case study expands both the GPN and VCD knowledge on the rural interventionist system in the Global South. Looking at the broader interventionist system of the APN instead of simply focusing on individual arrangements between lead firms and producers offers a richer outlook on how livelihood upgrading is more likely to be implemented in an agricultural GPN in the Global South.

Moreover, we used the lived experiences of local actors to examine how livelihood upgrading interventions were implemented over time to target small-scale producers. In this respect, we move beyond the firm-centric perspective that is usually adopted in GPN analysis and place argan small-scale producers at the center of our analysis. Additionally, while a considerable body of research in the GPN literature has attempted to examine the interactions between economic, social and environmental upgrading (Barrientos et al., 2011; Gereffi & Lee, 2016; Khan et al., 2019; Ponte, 2020), less attention however has been given to the interaction between economic and livelihood upgrading. To this effect, we explore the link between these two dimensions of upgrading. Also, since the application of economic upgrading is usually limited to firms in industrial contexts (Mitchell et al., 2009; Trienekens & Van Dijk, 2012; Kilelu et al., 2017), we examine the interaction processes between livelihood upgrading and value chain upgrading in an agricultural setting.

We began our analysis by investigating the implications of livelihood upgrading in influencing the value chain upgrading of producers in an agricultural GPN in each of our phases. As previously stated, the extant VCD scholarship contends that value chain upgrading can only be simulated by the intervention of IPs to ensure the value addition of production trickles down to small-scale producers (Trienekens & Van Dijk, 2012; Kalibwani et al., 2017). Our findings however revealed a different reality. We found that the overlapping livelihood upgrading strategies identified in Phases 1 and 2 have had some success in improving the value chain coordination of argan producers along the APN and improving the production processes and quality of argan oil, which translated into higher revenues for cooperative members. However, these strategies failed to influence the intersectoral upgrading of argan producers, which has been identified in the GPN literature as the most important step for the producers in developing countries to 'acquire a higher share of value added and gains' (Rossi, 2013; p. 223). The exception to this is IP-E, which was implemented from the bottom-up by local actors to trademark argan oil as a PGI product. To this effect, one conclusion we can draw from these findings is that one possible way for a livelihood upgrading strategy to successfully influence all three value chain upgrading processes, is that it needs to be generated locally rather than be a top-down implementation. This finding is congruent with the work of Gammelgaard et al. (2021) who explore the importance of bottom-up initiatives of local producers to achieve what they coined 'community governance' through livelihood upgrading.

6.2. Expanding our analytical framework

The analytical framework we employed has been essential in the reconstruction of the evolutionary and inclusionary processes of the APN. Specifically, we based our framework on the GPN and VCD literatures to examine the influence of livelihood upgrading on the conditions of inclusion of local producers in the APN. Through our analysis, key local producers bottom-up responses to the inclusion challenges emerged. These responses were adopted by the producers to remain included in the APN which thereafter influenced the organizational change of the APN over time. Therefore, we argue for the elaboration of an analytical framework that would facilitate the study of the livelihood upgrading and inclusionary processes in agricultural GPNs. We first look at the implications of livelihood upgrading on the value chain upgrading processes of local producers

and its consequent contribution to the upgrading literature. We then present how our analytical framework can be modified following the three bottom-up responses we identified in our analysis.

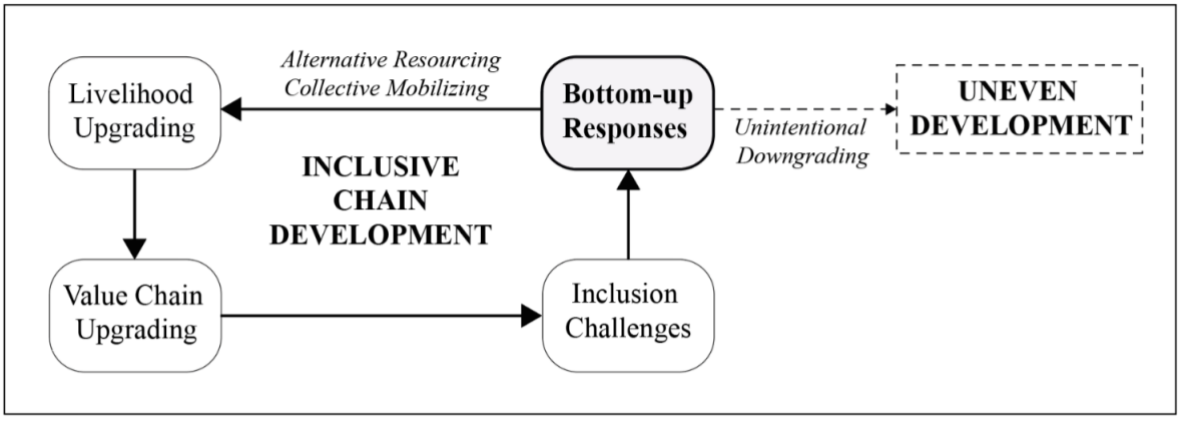
We thus move to the implication of livelihood upgrading on the inclusionary processes of small-scale producers. In our research, three key **bottom-up responses** emerged as a local response to the challenges identified in each phase: collective mobilizing, alternative resourcing and unintentional downgrading. We refer to **collective mobilization** as the action where local producers respond to a set of challenges by coming together as a group to enhance their conditions and position in the APN**. Alternative resourcing** is when local producers look for alternative ways to remain included in the APN such as obtain new financial and technical resources. Last**, unintentional downgrading** is when producers are made to move to performing low-value activities to remain included in the APN. This could include also include selling non-argan products in argan cooperatives. Furthermore, the theoretical implication of these bottom-up responses on the GPN and VCD literatures is twofold.

First, the bottom-up responses that emerged in our analysis can be linked to the resourcing theory (Feldman, 2004; Feldman & Worline, 2012). Resourcing is the '*creation in practice of assets such as people, time, money, knowledge, or skill; and qualities of relationships such as trust, authority, or complementarity such that they enable actors to enable schemas'* (Feldman, 2004; p. 296). Actions must be taken to enable the creation of resources needed to enact a particular schema, while resourcing is a cyclical, repetitive process that occurs incrementally within an organizational change context (Feldman, 2004). A change in actions taken affects the creation of resources which then affects the ability to enact schemas using those resources (Feldman, 2004). Then, the (in)ability to enact schemas affects the actions to be taken (Feldman, 2004). In our case study, we observed a similar cyclical process in each phase following the livelihood upgrading interventional strategies. When the inclusion challenges of local producers emerged in Phase 1, the elected representatives of the early cooperatives enacted an alternative resourcing response to overcome the early challenges they encountered at the market level. This response then led to the emergence of scientific evidence as a resource which helped promote argan oil as a cosmetic product in Phase 2. This new resource further facilitated the implementation of IP-C in Phase 2, and as such allowed local producers to renew their livelihood upgrading. In a similar vein, the challenges encountered

at the end of Phase 2 inspired the cooperatives to enact an alternative resourcing and collective mobilizing responses to create the resources they needed to trademark argan oil as a PGI product, and as such protect their position as the 'most authentic' producers of argan oil in the APN in Phase 3. Another insight we can draw from these findings is that the inclusion process of small producers is not a one-time occurrence and cannot be guaranteed by livelihood upgrading alone. Specifically, inclusion in the APN is an iterative process that changes over time when actors or resources also change. To this effect, we enrich our analytical framework with this new insight.

The third response that emerged from our analysis is the 'unintentional downgrading' response and it contributes to the GPN literature where it offers insight into how the GPN framework can help inform issues of uneven development. Per the literature review, the GPN framework was introduced as an analytical framework to examine how uneven development happens in GPNs. However, the GPN framework falls short in explaining the uneven development that happens in agricultural production in the Global South (Vicol et al., 2019). To this effect, our case study can help fill this gap in the GPN research agenda. When local producers engage in unintentional downgrading, they automatically move to low-value activities where they usually remain captive in asymmetrical relations that become too challenging to overcome. Moreover, when adopting this response, producers fail to create the resources they need to renew their livelihood upgrading. Consequently, unintentional downgrading leads to the creation of low-value activities which in turn enacts a new 'schema' of uneven development in the APN. *Figure 7* below illustrates our elaborated analytical framework, which presents the inclusion and uneven development processes:

Figure 7: Our elaborated analytical framework based on findings



Source: Author's own elaboration

This analytical implication offers an important contribution to the VCD literature. Specifically, the VCD scholarship typically focuses on conducting evaluations of VCD interventions in a particular context to examine the positive or negative outcomes of such interventions rather than study the inclusion and exclusion of local producers as an ongoing process, which overlooks an important perspective to gain a deeper understanding of the dynamic changes that happen at the local level in interventionist systems. Our research, however, has shown that inclusion is an ongoing, recursive process. Specifically, it has to be generated in each resourcing cycle over time, which further emphasizes the importance of analyzing GPNs as evolutionary processes rather than industry snapshots of particular moments in time (Ponte & Grabs, 2019). As such, the inclusion of small-scale producers is not an objective that can be attained once and remain constant over time. Rather, what truly influences the ongoing and continuous inclusion of small-scale producers is their ability to create new resources to withstand changes in the inclusion equilibrium and GPN reconfiguring, and effectively use these resources to remain included in an agricultural GPN.

Finally, our research contributes to the VCD literature as it offers insights into the role of governments in enabling smallholder through IP interventions. In the APN case study, we observed the intervention of two types of governments: the regional government and national government. The regional government operates at the level of the argan region and was more involved in the evolutionary process of the APN. As such, it collaborated with the international partners of IP-A, IP-B, and IP-C and the local population to facilitate the knowledge transfer and proper usage of financial and technical resources to link argan producers to the international market. It further closely collaborated with the federated cooperatives in IP-E to assist them in implementing the PGI certification. In this sense, the regional government contributed to the ongoing inclusion process of federated cooperatives in the APN throughout each phase. However, while the national government was sympathetic to the emerging APN and acknowledged its potential in contributing to the rural and sustainable development of the argan region, its contribution stopped at giving the local population financial assistance to create state-subsidized cooperatives. In so doing, the national government failed to provide the technical capabilities needed to ensure the success of these cooperatives and consequently led to their uneven development. Therefore, an important conclusion we can draw from these findings is the importance of governments closely

collaborating with local producers where they not only offer them financial assistance, but also assist them in building the necessary capabilities to learn how to effectively use resources to achieve their continuous inclusion in an agricultural GPN. This finding also contributes to the expansion of the GPN literature as it answers the call for studies that investigate the role of states in agricultural GPNs (Thorpe, 2018; Horner & Alford, 2019). In the following section, we provide a synthesis of the practical implications that emerged from our analysis.

6.3. Practical implications of our research

From a policy perspective, this research contributes to the analysis of the dynamic processes small-scale producers undergo to remain included in agricultural GPNs, and who are affected by the dominant market-based policy approach of linking producers to international markets to achieve economic development (Stoian et al., 2012; Ros-Tonen et al., 2019). In this sense, our research has revealed how problematic this approach can be to its intended beneficiaries when inclusion is seen as an *outcom*e rather than an *ongoing process*. Moreover, it is imperative that policy-makers move beyond the promotion of international markets as the dominant market pathway to advance their economic and social outcomes (Hainzer et al., 2019). Local markets are equally important in stimulating local economies and addressing poverty (Hainzer et al., 2019). In our case study, both the government and international donors sought to create an argan production that is essentially oriented towards export. However, the process has proved to be extremely challenging throughout the evolution of the APN and only 10% of the existing argan cooperatives have built the ability to export and consequently, only 20% of the total argan market share is held by them. Additionally, while some cooperatives have had limited success in accessing the domestic market, the local market for argan oil is now essentially geared towards tourists that visit the region. Following the drastic increase of argan oil prices, the local population has become unable to afford it, which excludes them from enjoying from an important aspect of their ancestral culture. To this end, policy-makers need to start with developing a local market for small producers, strengthen it, and incrementally expand internationally. As our case study has illustrated, the argan producers weren't equipped to keep up with the sudden increase in global demand for argan oil and were consequently overshadowed by the private sector who has the resources to create economies of scale and take over the market.

In the case of international donors, our research has shown the importance of implementing livelihood upgrading strategies from the bottom-up as both a value chain upgrading and inclusionary mechanism in an agricultural GPN. Furthermore, it is essential that when these actors conduct field research during the design phase of an intervention, that they first examine the history behind why a rural landscape is configured the way it is. This helps shed light on the true configuration of rural production landscapes, which has an important influence on the outcomes of a VCD intervention. For instance, in the case of the APN, through the field investigation they conducted in Phase 1, the development experts concluded that the degradation of the argan forest was a result of the malpractices led by the local population. However, as we have shown in Chapter 4, the degradation of the argan forest was actually the result of a series of government interventions that span over more than a century, most notably, the decisions initiated by the colonial administration and later accelerated by the implementation of the SAPs interested in clearing out forested areas to harvest cash crops designated for export. To this end, what would actually help the APN is the reintroduction of local, ancestral knowledge to sustainably preserve the argan forest from further degradation. This in turn would further ensure the ongoing inclusion of the local population in the APN rather than a select few.

In the case of governments, the practical implication of our research is twofold. First, governments play an essential role in contributing to the inclusion of small-scale producers. However, for their contribution to be successful, governments need to assist producers not only financially, but help them build the capacities they need to ensure their ongoing inclusion in an agricultural GPN. Furthermore, governments need to achieve the transparency of the agricultural industry by improving their regulatory environment. For instance, our analysis revealed the existence of *invisible* actors who take the benefits and value-added profits away from argan producers. An improved regulatory environment may help better monitor these invisible actors and gain better insight at their activities and how much of the market share they truly possess.

As for small-scale producers, our research has shown the importance of collective organization in ensuring their continuous inclusion in a GPN. It is therefore important that small-scale producers

engage in strategic bottom-up responses that enable them to create the necessary resources to renew their livelihood upgrading and thus, create sustainable pathways for their inclusionary process. Our research has also shown the importance of these producers relying on themselves in finding strategic partners to assist them in building capacity. To avoid exclusion, it is imperative that local producers avoid unintentional downgrading at all costs. In the current configuration of the APN, argan producers are struggling to keep up with the intense market competition. To overcome this challenge, they would need to engage in new strategic bottom-up responses that will enhance their capacity and skillset in order to better compete with the private sector and finally ensure their continuous inclusion in the APN.

Finally, the ethnographic and longitudinal and process-oriented methodological approach we adopted to conduct our research greatly contributes to the IB field. As such, the GPN literature has so far perceived smallholder producers as secondary, one-dimensional actors whose primary objective is subsistence. Specifically, the dominant contention in the GPN literature is that these actors move in and out of chains as a part of the diverse livelihood portfolio they engage in to provide for their basic needs (Vicol et al., 2019). Our research, however, paints a different picture where small-scale producers advocate from the ground up for their development and their continuous inclusion in the APN. Consequently, the analytical framework we propose in this dissertation offers an alternative perspective to achieve a more elaborate and critical analysis of producers in an agricultural GPN that moves away from the typical firm-centrism dominant approach in the IB research agenda. Last, this dissertation contributes to the expansion of the IB field as it investigates what Buckley et al. (2017) calls a ‘grand challenge’ and as such adopt a multidisciplinary perspective to understand the rich, and complex contextual processes of our study.

Conclusion

In conclusion, this dissertation presents the evolutionary progression of an agricultural GPN, and as such, provides a broad and enriched overview of how inclusionary processes occur at the smallholder level. It further expands the GPN and VCD literatures by proposing an analytical framework that allows the critical examination of smallholder producers in agricultural contexts. We now end our dissertation with presenting the limitations we encountered in conducting our research, and our suggestions for future research to further expand our theoretical and analytical contributions to the GPN and VCD literatures.

Limitations and directions for future research

We noted several limitations to our research. First, we refer back to the point we raised in the methodology chapter regarding the transferability of our research. Given the unique aspect of the case study we have chosen, the potential of generalizability of this study's findings is therefore limited. However, we justified our choice of this *single* case study as particularly relevant to our research inquiry due to its exploratory and revelatory potential to provide useful insights into our phenomenon of interest (Ghauri & Firth, 2009). Moreover, our use of a single critical case was further justified in our aspiration to challenge and extend the VCD established theory related to the inclusion of smallholder producers in agricultural GPNs. We further expanded on the GPN theory by providing an alternative analytical framework to examine how uneven development is produced in Global South agricultural landscapes. Consequently, future research could borrow our elaborated analytical framework to test its applicability in different agricultural contexts.

Next, the onset of the Covid-19 pandemic has disrupted our original field investigation itinerary. In fact, we had planned for a two-part field investigation: one where we would collect the first set of data, and the second where we would return to the field for further information and clarifications from old and new participants depending on the findings emerging from the analysis of my first dataset. Our inability to return to the field has further impeded our ability to confirm the accuracy of some of the conflicting data we collected following the triangulation method (Ghauri & Firth, 2009). Specifically, there were a few instances where different actors contradicted each other. To

overcome this limitation, we thus presented each opposing perspectives and simply omitted the rare ones that weren't particularly relevant to the overall reconstruction of our study's evolutionary and inclusionary processes.

Another methodological limitation is the longitudinal duration of our case study. More precisely, we ended our reconstruction of the APN in the year 2015. However, we had a strategical rationale behind our decision. As a case in point, the last livelihood upgrading intervention that was implemented in the APN was IP-E. Moreover, while our interviews confirmed that the evolution of the APN has stagnated starting from 2015, our data however only accounts for the overall configuration of the APN up until 2020. In this sense, we haven't been able to document the effects of the Covid-19 pandemic on the APN, and its highly probable influence on the inclusionary processes of the local producers. Future research could therefore reproduce this study, using the year 2015 as a starting point and reconstruct the APN's evolutionary progression while accounting for the influence of the pandemic on its reorganization.

Finally, from a theoretical standpoint, this study has essentially focused on the concept of upgrading in the GPN and the VCD literatures. To this end, future research could examine the implication of different GPN governance dimensions in the application of livelihood upgrading. Specifically, *community governance* (Gammelgaard et al., 2021) is of particular relevance to investigate livelihood upgrading in rural production landscapes. In this sense, we have observed several instances of community governance at the local level in the argan region, most notably in our observation of the village of *Arbaâ Sahel*. In this particular example, the local government official we interviewed indicated the rural developmental efforts their community has undertaken over the last decade to achieve their livelihood upgrading without being dependent on the APN. More precisely, the community has adopted strategic actions where they allied with multiple partners (domestic and international) to create the necessary capabilities and knowledge to sustainably diversify their sources of revenue. In this respect, the community has become involved in agricultural production of several commodities that are endemic to the region such as honey-making, essential oil production and to a lesser extent, argan oil production. However, instead of aiming to directly access the international market, this community is currently expanding their presence in the local market and intend to incrementally expand into larger markets. Therefore,

the *Arbaâ Sahel* community could potentially be an exemplary case study to investigate the interactions of community governance and livelihood upgrading.

Furthermore, the aggressive push for export-oriented production as a part of environmental conservationist strategies has led to a shift in the local management of the argan forest. Where the agdal was once set in place to ensure the sustainable use of the forest during the harvest season, it now serves the purpose of ensuring all the argan fruits are collected (Faouzi, 2018). This practice can have dire consequences in the not-so-distant future as the natural regeneration of the forest will be impeded (Faouzi, 2018). This leads us to question the effectiveness of the market-based approach in generating truly sustainable change for the local population. Therefore, future studies could investigate the interaction between livelihood upgrading and environmental upgrading in agricultural GPNs.

Bibliography

Akullo, D., Maat, H., & Wals, A. E. J. (2018). An institutional diagnostics of agricultural innovation; public-private partnerships and smallholder production in Uganda. *NJAS: Wageningen Journal of Life Sciences, 84*(1), 6-12.

Alford, M., & Phillips, N. (2018). The political economy of state governance in global production networks: change, crisis and contestation in the South African fruit sector. *Review of International Political Economy, 25*(1), 98-121.

Aref, F. (2011). A theoretical study of rural capacity building for rural cooperatives in developing countries. *Indian Journal of Science and Technology, 4*, 1179-1181.

Aubert, P.-M., Leroy, M., & Auclair, L. (2009). Moroccan Forestry Policies and Local Forestry Management in the High Atlas: A Cross Analysis of Forestry Administration and Local Institutions. *Small-scale Forestry, 8*(2), 175-191.

Aubert, P.-M., Nicolle, S., Vendé, J., Leroy, M., Delbergue, A., Ellien, H., Elouarti, A., Fardin, F., Gonçalves, S., Lepetit, V., Michel, R., Tregoures, A., Weiller, G., & Zeller, Q. (2015). *Essor du privé dans la filière « argan » : Dynamiques socio-économiques et conséquences écologiques*.

Auclair, L. (2005). De nouveaux enjeux pour de vieilles pratiques de gestion : les agdals forestiers du Haut Atlas central (Maroc).*Dynamique de la biodiversité et modalités d'accès aux milieux et aux ressources* Séminaire de l'IFB : Dynamique de la Biodiversité et Modalité d'Accès aux Milieux et aux Ressources : Axe 3 : Arrangements Institutionnels et Gestion de la Biodiversité, Paris.

Bani-Aameur, F. (2002). Argania spinosa (L.) Skeels flowering phenology. *Genetic Resources and Crop Evolution, 49*(1), 11-19.

Barrientos, Stephanie (2014), *Gender and global value chains: challenges of economic and social upgrading in agri-food*, EUI RSCAS/96, Global Governance Programme-130, Global Economics.

Barrientos, S. (2019). *Gender and Work in Global Value Chains: Capturing the Gains?* Cambridge University Press.

Barrientos, S. (2022). Regional value chains in the Global South: governance implications for producers and workers? *Cambridge Journal of Regions, Economy and Society, 15*(2), 437-443.

Barrientos, S., Bianchi, L., & Berman, C. (2019). Gender and governance of global value chains: Promoting the rights of women workers. *International Labour Review, 158*(4), 729-752.

Barrientos, S., Gereffi, G., & Rossi, A. (2010). Economic and social upgrading in global production networks: Developing a framework for analysis. *International Labor Review, 150*(3-4), 319-340.

Barrientos, S., Gereffi, G., & Rossi, A. (2011). Economic and social upgrading in global production networks: A new paradigm for a changing world. *International Labour Review, 150*(3-4), 319-340.

Barrientos, S., Mayer, F., Pickles, J., & Posthuma, A. (2011). Decent work in global production networks: Framing the policy debate. *International Labour Review, 150*(3-4), 297-317.

BASF. (2015). *Argan product range - From a sustainable program*.

Bitzer, V., & Glasbergen, P. (2015). Business–NGO partnerships in global value chains: part of the solution or part of the problem of sustainable change? *Current Opinion in Environmental Sustainability, 12*, 35-40.

Bitzer, V., Glasbergen, P., & Arts, B. (2013). Exploring the potential of intersectoral partnerships to improve the position of farmers in global agrifood chains: findings from the coffee sector in Peru. *Agriculture and Human Values, 30*(1), 5-20.

Bolwig, S., Ponte, S., Du Toit, A., Riisgaard, L. and Halberg, N. (2010), Integrating Poverty and Environmental Concerns into Value-Chain Analysis: A Conceptual Framework. Development Policy Review, 28: 173-194.

Boström, M., Jönsson, A. M., Lockie, S., Mol, A. P. J., & Oosterveer, P. (2015). Sustainable and responsible supply chain governance: challenges and opportunities. *Journal of Cleaner Production, 107*, 1-7.

Boulhol, P. (1952, 1952). Législation forestière marocaine. *Revue forestière française*(4), 232-246.

Bourbouze, Alain. El Aïch. (2005). "L'élevage Caprin dans l'Arganeraie: l'Utilisation Conflictuelle d'un Espace". *Cahiers Agricultures*. 14 (5): 447-53.

Bray, J. G., & Neilson, J. (2017). Reviewing the impacts of coffee certification programmes on smallholder livelihoods. *International Journal of Biodiversity Science, Ecosystem Services & Management, 13*(1), 216-232.

Buckley, P. J., Doh, J. P., & Benischke, M. H. (2017). Towards a renaissance in international business research? Big questions, grand challenges, and the future of IB scholarship. *Journal of International Business Studies, 48*(9), 1045-1064.

Burgelman, R. A. (2011). Bridging history and reductionism: A key role for longitudinal qualitative research. *Journal of International Business Studies, 42*(5), 591-601.

Challies, E. R. T. (2008). Commodity Chains, Rural Development and the Global Agri-food System. *Geography Compass, 2*(2), 375-394.

Chamikh, A., Ait Hamza, M., & El Mahdad, E. H. (2014). Impacts de la gestion coutumière sur l'état écologique des peuplements d'arganiers, cas de la forêt de Taznakht (Partie Sud), Préfecture

d'Agadir Ida Ou Tanane, Maroc [Maroc, Arganier, Agdal, Mouchaâ, le droit coutumier, aménagement forestier]. *2014*, *2*.

Charrouf, Z., & Guillaume, D. (2008). Argan Oil, Functional Food, and the Sustainable Development of the Argan Forest. *Natural Product Communications, 3*(2).

Charrouf, Z. & Guillaume, D. (2011). The rebirth of the Argan Tree or, How to stop the desert while giving a future to Amazigh women in Morocco. In R. N. Harpelle & B. Muirhead (Eds.), *Long-term solutions for a short-term world: Canada and research development*. Wilfrid Laurier Univ. Press. 71–85.

Charrouf, Z., & Guillaume, D. (2014). Argan oil, the 35-years-of-research product. *European Journal of Lipid Science and Technology, 116*(10), 1316-1321.

Charrouf, Z., & Guillaume, D. (2018). The argan oil project: Going from utopia to reality in 20 years. *OCL, 25*.

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Sage Publications, Inc.

Creswell, J. W. (2014). Research Design: Qualitative, Quantitative and Mixed Methods Approaches (4th ed.). Thousand Oaks, CA: Sage.

Damamme, A. (2005). *Le genre à l'épreuve du développement au Maroc : discours et pratiques concernant la place des femmes dans les projets*

Daniel, J. (2012). Weak Coffee: Certification and Co-Optation in the Fair Trade Movement. *Social Problems, 59*(1), 94-116.

Dasgupta, B. (1997). SAP: Issues and Conditionalities: A Global Review. *Economic and Political Weekly, 32*(20/21), 1091-1104.

Davis, D. (2004). Desert 'wastes' of the Maghreb: desertification narratives in French colonial environmental history of North Africa. *Cultural Geographies, 11*(4), 359-387.

Davis, D. (2007). *Resurrecting the Granary of Rome: Environmental History and French Colonial Expansion in North Africa.* Athens: Ohio University Press.

Davis, D. (2011). Environmentalism as Social Control? An Exploration of the Transformation of Pastoral Nomadic Societies in French Colonial North Africa. *The Arab World Geographer, 3*(3), 182-198.

de Janvry, A., & Sadoulet, E. (2019). *Transforming developing country agriculture: Removing adoption constraints and promoting inclusive value chain development*.

De Marchi, V., & Di Maria, E. (2019). Environmental Upgrading and Suppliers' Agency in the Leather Global Value Chain. *Sustainability, 11*, 6530.

De Ponteves E., Bourbouze A., Narjisse H. (1990). Occupation de l'espace, droit coutumier et législation forestière dans un terroir de l'arganeraie septentrionale au Maroc. *Cahiers de la recherche développement (Les)*, 01/06/1990, n. 26, p. 28-43.

Deans, H., Ros-Tonen, M. A. F., & Derkyi, M. (2018). Advanced Value Chain Collaboration in Ghana's Cocoa Sector: An Entry Point for Integrated Landscape Approaches? *Environmental Management, 62*(1), 143-156.

Devaux, A., Torero, M., Donovan, J., & Horton, D. (2018). Agricultural innovation and inclusive value-chain development: a review. *Journal of Agribusiness in Developing and Emerging Economies, 8*(1), 99-123.

Dodge, P. (2011). *Managing school behavior: a qualitative case study* Iowa State University].

Doherty, B., & Kittipanya-Ngam, P. (2021). The Role of Social Enterprise Hybrid Business Models in Inclusive Value Chain Development. *Sustainability, 13*(2), 499.

Donovan, J., Blare, T., & Poole, N. (2017). Stuck in a rut: emerging cocoa cooperatives in Peru and the factors that influence their performance. *International Journal of Agricultural Sustainability, 15*(2), 169-184.

Doz, Y. (2011). Qualitative research for international business. *Journal of International Business Studies, 42*(5), 582-590.

Drews, A. (2002). *Nature Conservation through Use - the Argan Tree in Morocco*.

Eisenhardt, K. M. (1989). Building Theories from Case Study Research. *The Academy of Management Review, 14*(4), 532-550.

El-Naggar, S. (1987). *Adjustment policies and Development Strategies in the Arab World*. International Monetary Fund

Faouzi, H. (2018). Les pratiques coutumières de gestion des ressources naturelles dans le contexte de la mondialisation économique : cas de l'arganeraie marocaine. *Études caribéennes*.

Feldman, M., & Worline, M. (2012). Resources, Resourcing, and Ampliative Cycles in Organizations. *The Oxford Handbook of Positive Organizational Scholarship*.

Feldman, M. S. (2004). Resources in Emerging Structures and Processes of Change. *Organization Science, 15*(3), 295-309.

Fenton, C., & Langley, A. (2011). Strategy as Practice and the Narrative Turn. *Organization Studies, 32*(9), 1171-1196.

Flick, U. (2018). *The SAGE Handbook of Qualitative Data Collection*

Frederick, M., & Gary, G. (2010). Regulation and Economic Globalization: Prospects and Limits of Private Governance. *Business and Politics, 12*(3), 1-27.

Gammelgaard, J., Haakonsson, S., & Just, S. N. (2021). Linking Malawi's agricultural sector to global value chains: The case for community governance. *Journal of International Business Policy, 4*(4), 523-540.

Gellner, E. (1962). PATTERNS OF RURAL REBELLION IN MOROCCO: TRIBES AS MINORITIES. *European Journal of Sociology / Archives Européennes de Sociologie / Europäisches Archiv für Soziologie, 3*(2), 297-311.

Gereffi, G. (1999). International trade and industrial upgrading in the apparel commodity chain. *Journal of International Economics, 48*(1), 37-70.

Gereffi, G., Humphrey, J., & Sturgeon, T. (2005). The governance of global value chains. *Review of International Political Economy, 12*(1), 78-104.

Gereffi, G. & Fernandez-stark, K. (2018). Global Value Chain Analysis: A Primer (Second Edition). *Global Value Chains and Development: Redefining the Contours of 21st Century Capitalism*, by Gary Gereffi, Cambridge University Press, Cambridge. 305-342.

Gereffi, G., & Lee, J. (2016). Economic and Social Upgrading in Global Value Chains and Industrial Clusters: Why Governance Matters. *Journal of Business Ethics, 133*(1), 25-38.

Ghauri, P. (2004). Handbook of Qualitative Research Methods for International Business. In R. Piekkari & C. Welch (Eds.), *Chapter 5: Designing and Conducting Case Studies in International Business Research*. Edward Elgar Publishing.

Ghauri, P., & Firth, R. (2009). The formalization of case study research in international business. *der markt, 48*, 29-40.

Giuliani, E., Ciravegna, L., Vezzulli, A., & Kilian, B. (2017). Decoupling Standards from Practice: The Impact of In-House Certifications on Coffee Farms' Environmental and Social Conduct. *World Development, 96*, 294-314.

Giuliani, E., Pietrobelli, C., & Rabellotti, R. (2005). Upgrading in Global Value Chains: Lessons from Latin American Clusters. *World Development, 33*(4), 549-573.

Glasbergen, P. (2018). Smallholders do not Eat Certificates. *Ecological Economics, 147*, 243-252.

Grabs, J., & Ponte, S. (2019). The evolution of power in the global coffee value chain and production network. *Journal of Economic Geography, 19*(4), 803-828.

Guba, E. G. (1978). *Toward a methodology of naturalistic inquiry in educational evaluation* (CSE Monograph 8). Los Angeles: University of California, Los Angeles, Center for the Study of Evaluation.

Hainzer, K., Best, T., & Brown, P. H. (2019). Local value chain interventions: a systematic review. *Journal of Agribusiness in Developing and Emerging Economies, 9*(4), 369-390.

Hassler, M., & Franz, M. (2013). THE BRIDGING ROLE OF INTERMEDIARIES IN FOOD PRODUCTION NETWORKS: INDIAN ORGANIC PEPPER IN GERMANY. *Tijdschrift voor Economische en Sociale Geografie, 104*(1), 29-40.

Hatanaka, M., & Busch, L. (2008). Third-Party Certification in the Global Agrifood System: An Objective or Socially Mediated Governance Mechanism? *Sociologia Ruralis, 48*(1), 73-91.

Heyink, J. W., & Tymstra, T. J. (1993). The Function of Qualitative Research. *Social Indicators Research, 29*(3), 291-305.

Horner, R., & Alford, M. (2019). Handbook on Global Value Chains. In S. Ponte, G. Gereffi, & G. Raj-Reichert (Eds.), *Chapter 34: The roles of the state in global value chains*. Edward Elgar Publishing.

IDRC. (2010). *Helping Moroccan women preserve the Argan tree at the gateway to the Sahara*. IDRC. Retrieved February 14, 2022, from https://www.idrc.ca/en/research-in-action/helping-moroccan-women-preserve-argan-tree-gateway-sahara

Kalibwani, R., Twebaze, J., Kamugisha, R., Kakuru, M., Sabiiti, M., Kugonza, I., Tenywa, M., & Nyamwaro, S. (2018). Multi-stakeholder partnerships in value chain development: A case of the organic pineapple in Ntungamo district, Western Uganda. *Journal of Agribusiness in Developing and Emerging Economies, 8*, 00-00.

Karmaoui, A. (2016, 01/10). Ecosystem Services of the Argan Forest, the Current State and Trends. *Advances in Research, 8*, 1-13.

Khan, M. J., Ponte, S., & Lund-Thomsen, P. (2020). The 'factory manager dilemma': Purchasing practices and environmental upgrading in apparel global value chains. *Environment and Planning A: Economy and Space, 52*(4), 766-789.

Kilelu, C., Klerkx, L., Omore, A., Baltenweck, I., Leeuwis, C., & Githinji, J. (2017). Value Chain Upgrading and the Inclusion of Smallholders in Markets: Reflections on Contributions of Multi-Stakeholder Processes in Dairy Development in Tanzania. *The European Journal of Development Research, 29*(5), 1102-1121.

Kydd, J., & Thoyer, S. (1992). Structural Adjustment and Moroccan Agriculture.

Langley, A. (1999). Strategies for Theorizing from Process Data. *The Academy of Management Review, 24*(4), 691-710.

Langley, A. (2007). Process thinking in strategic organization. *Strategic Organization, 5*(3), 271-282.

Langley, A., & Abdallah, C. (2015). Templates and Turns in Qualitative Studies of Strategy and Management. In G. B. Dagnino & M. C. Cinici (Eds.), *Research Methods for Strategic Management*. Routledge.

Langley, A., & Stensaker, I. (2012). Qualitative Organizational Research: Core Methods and Current Challenges. In. SAGE Publications, Inc.

Lawrence, T. B., & Phillips, N. (2004). From Moby Dick to Free Willy: Macro-Cultural Discourse and Institutional Entrepreneurship in Emerging Institutional Fields. *Organization, 11*(5), 689-711.

le Polain de Waroux, Y., & Chiche, J. (2013). Market Integration, Livelihood Transitions and Environmental Change in Areas of Low Agricultural Productivity: A Case Study from Morocco. *Human Ecology, 41*(4), 535-545.

le Polain de Waroux, Y., & Lambin, E. F. (2012). Monitoring degradation in arid and semi-arid forests and woodlands: The case of the argan woodlands (Morocco). *Applied Geography, 32*(2), 777-786.

Lee, J., & Gereffi, G. (2015). Global Value Chains, Rising Power Firms and Economic and Social Upgrading. *Critical Perspectives on International Business, 11*, 319-339.

Li, Tania. (2007). *The will to improve: governmentality, development, and the practice of politics*. Durham: Duke University Press.

Longhurst, R. (2016). Semi-Structured Interviews and Focus Groups. In N. Clifford, M. Cope, & S. F. Thomas Gillespie (Eds.), *Key Methods in Geography* (pp. 145-153). Sage.

Lybbert, T. J., Aboudrare, A., Chaloud, D., Magnan, N., & Nash, M. (2011). Booming markets for Moroccan argan oil appear to benefit some rural households while threatening the endemic argan forest. *Proceedings of the National Academy of Sciences, 108*(34), 13963-13968.

Mayer, F. W., & Phillips, N. (2017). Outsourcing governance: states and the politics of a 'global value chain world'. *New Political Economy, 22*(2), 134-152.

Miles M. B A. M Huberman & Saldaña J. (2020). *Qualitative Data Analysis : A Methods Sourcebook* Fourth ed. Los Angeles: SAGE.

Mitchell, J, Keane, J. and Coles, C. (2009): Trading up: How a value chain approach can benefit the rural poor. In: COPLA Global: Overseas Development Institute.

Naylor, L. (2014). "Some are more fair than others": fair trade certification, development, and North–South subjects. *Agriculture and Human Values, 31*(2), 273-284.

Neilson, J. (2014). Value chains, neoliberalism and development practice: The Indonesian experience. *Review of International Political Economy, 21*(1), 38-69.

Neilson, J., & Shonk, F. (2014). Chained to Development? Livelihoods and global value chains in the coffee-producing Toraja region of Indonesia. *Australian Geographer, 45*(3), 269-288.

Nill, D., & Böhnert, E. (2006). Argan Oil Production in Morocco. In *Value Chains for the Conservation of Bio-logical Diversity for Food and Agriculture* (pp. 37–55). essay, Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH.

Nouaim, R. (2005). *L'arganier au Maroc: entre mythes et réalités : une civilisation née d'un arbre*. L'Harmattan.

Patton, M. (2002). Qualitative Research & Evaluation Methods. 3rd edition. Sage Publications, Inc.

Patton, M. (2014) Qualitative Research and Evaluation Methods. 4th Edition, Sage, Thousand Oaks.

Pennell, C. R. (1991). Makhzan and Siba in Morocco: an examination of early modern attitudes. In E. &. P. Joffe (Ed.), Tribe and state: essays in honour of David Montgomery Hart (pp. 159-180). Wisbech, Cambridgeshire, England: Middle East & North African Studies Press (MENAS).

Pereira, L. D., & Nuno, S. (2018). *Investing in collective action: opportunities in agrifood cooperatives*

Perez-Aleman, P., & Sandilands, M. (2008). Building Value at the Top and the Bottom of the Global Supply Chain: MNC-NGO Partnerships. *California Management Review, 51*(1), 24-49.

Perry, W. (2020). Social sustainability and the argan boom as green development in Morocco. *World Development Perspectives, 20*, 100238.

Perry, W., Rappe, O., Boulhaoua, A., Hassan Loux, L., Elhouss, Y., Ait Ahssain, H., Ait Barich, Z., Akhiyat, H., Aznague, T. A., & Hraïd, S. (2019). Argan oil and the question of empowerment in rural Morocco. *The Journal of North African Studies, 24*(5), 830-859.

Pettigrew, A. M. (1990). Longitudinal Field Research on Change: Theory and Practice. *Organization Science, 1*(3), 267-292.

Ponte, S. (2022). The hidden costs of environmental upgrading in global value chains. *Review of International Political Economy, 29*(3), 818-843.

Ponte, S., & Ewert, J. (2009). Which Way is "Up" in Upgrading? Trajectories of Change in the Value Chain for South African Wine. *World Development, 37*(10), 1637-1650.

Ponte, S., Gereffi, G., Raj-Reichert, G., & Neilson, J. (2019). *Handbook on Global Value Chains*. Edward Elgar Publishing. https://doi.org/10.4337/9781788113779

Ponte, S., Gereffi, G., Raj-Reichert, G., Ponte, S., Gereffi, G., & Raj-Reichert, G. (2019). Handbook on Global Value Chains. In*: Introduction to the Handbook on Global Value Chains*. Edward Elgar Publishing.

Poulsen, R. T., Ponte, S., & Sornn-Friese, H. (2018). Environmental upgrading in global value chains: The potential and limitations of ports in the greening of maritime transport. *Geoforum, 89*, 83-95.

Ranjan Jena, P., & Grote, U. (2017). Fairtrade Certification and Livelihood Impacts on Small-scale Coffee Producers in a Tribal Community of India. *Applied Economic Perspectives and Policy, 39*(1), 87-110.

Reay, T., Zafar, A., Monteiro, P., & Glaser, V. (2019). Presenting Findings from Qualitative Research: One Size Does Not Fit All! In T. B. Zilber, J. M. Amis, & J. Mair (Eds.), *The Production of Managerial Knowledge and Organizational Theory: New Approaches to Writing, Producing and Consuming Theory* (Vol. 59, pp. 201-216). Emerald Publishing Limited.

Robinson, D.F. (2014). Biodiversity, Access and Benefit-Sharing: Global Case Studies (1st ed.). Routledge.

Robinson, D.F. (2020). The Moroccan Argan Trade: Producer Networks and Human Bio-Geographies (1st ed.). Routledge.

Romagny, B., Auclair, L., & Elgueroua, A. (2008). La gestion des ressources naturelles dans la vallée des Aït Bouguemez (Haut Atlas) : la montagne marocaine à la recherche d'innovations institutionnelles. *Mondes en développement, 141*(1), 63-80.

Ros-Tonen, M. A. F., Bitzer, V., Laven, A., Ollivier de Leth, D., Van Leynseele, Y., & Vos, A. (2019). Conceptualizing inclusiveness of smallholder value chain integration. *Current Opinion in Environmental Sustainability, 41*, 10-17.

Rossi, A. (2013). Does Economic Upgrading Lead to Social Upgrading in Global Production Networks? Evidence from Morocco. *World Development, 46*, 223-233.

Saldaña, J. (2016). *The Coding Manual for Qualitative Researchers.* 3rd ed. London: SAGE.

Seidman, I. (2006). *Interviewing as qualitative research: a guide for researchers in education and the social sciences*. 3rd ed.

Shenton, A. (2004). Strategies for Ensuring Trustworthiness in Qualitative Research Projects. *Education for Information, 22*, 63-75.

Simenel, R. (2011). Comment domestiquer une forêt sans les hommes ?Une ethnoécologie historique des forêts d'arganiers du Sud-Ouest marocain. *Techniques & Culture, 56*(1), 224-247.

Simenel, R., Romagny, B., & Auclair, L. (2014). "Les femmes berbères gardiennes des secrets de l'arganier" : le détournement des pratiques locales.

Stake, R. (1994). Qualitative Case Studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research*. SAGE Publications.

Stake, R. (1995). *The art of case study research.* Sage Publications, Inc.

Stake, R. (2005). Qualitative Case Studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research*. Sage Publications Ltd. 443–46.

Stake, R. (2010). Qualitative Research: Studying How Things Work. New York: Guilford Publications, Inc.

Stoian, D., Donovan, J., Fisk, J., & Muldoon, M. (2012). Value chain development for rural poverty reduction: A reality check and a warning. *Enterprise Development and Microfinance, 23*, 54-69.

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory, 2nd ed*. Sage Publications, Inc.

Sutton, J., & Austin, Z. (2015). Qualitative Research: Data Collection, Analysis, and Management. *The Canadian journal of hospital pharmacy, 68*, 226-231.

Swaans, K., Boogaard, B., Bendapudi, R., Taye, H., Hendrickx, S., & Klerkx, L. (2014). Operationalizing inclusive innovation: lessons from innovation platforms in livestock value chains in India and Mozambique. *Innovation and Development, 4*(2), 239-257.

Thomas B. L. (2017). High-Stakes Institutional Translation: Establishing North America's First Government-sanctioned Supervised Injection Site. *AMJ,* **60**, 1771–1800.

Thorpe, J. (2018). Procedural Justice in Value Chains Through Public–private Partnerships. *World Development, 103*, 162-175.

Thorpe, J., & Maestre, M. (2015). *Brokering Development: Enabling Factors for Public-Private-Producer Partnerships in Agricultural Value Chains*.

Trienekens, J. H. (2011). Agricultural Value Chains in Developing Countries A Framework for Analysis. *International Food and Agribusiness Management Review, 14*(2), 103987.

Trienekens, J. H., & van Dijk, M. P. (2012). Upgrading of Value Chains in Developing Countries. In M. P. van Dijk & J. Trienekens (Eds.), *Global Value Chains* (pp. 237-250). Amsterdam University Press.

Turner, B. (2014). Neoliberal Politics of Resource Extraction: Moroccan Argan Oil. *Forum for Development Studies, 41*(2), 207-232.

Van de ven, A. H. (1992). Suggestions for studying strategy process: A research note. *Strategic Management Journal, 13*(S1), 169-188.

Vicol, M. (2019). Potatoes, Petty Commodity Producers and Livelihoods: Contract farming and agrarian change in Maharashtra, India. *Journal of Agrarian Change, 19*(1), 135-161.

Vicol, M., Fold, N., Pritchard, B., & Neilson, J. (2019). Global production networks, regional development trajectories and smallholder livelihoods in the Global South. *Journal of Economic Geography, 19*(4), 973-993.

Vicol, M., Neilson, J., Hartatri, D. F. S., & Cooper, P. (2018). Upgrading for whom? Relationship coffee, value chain interventions and rural development in Indonesia. *World Development, 110*, 26-37.

Welch, C., Piekkari, R., Plakoyiannaki, E., & Paavilainen-Mäntymäki, E. (2011). Theorising from case studies: Towards a pluralist future for international business research. *Journal of International Business Studies, 42*(5), 740-762.

Wyrtzen, J. (2011). COLONIAL STATE-BUILDING AND THE NEGOTIATION OF ARAB AND BERBER IDENTITY IN PROTECTORATE MOROCCO. *International Journal of Middle East Studies, 43*(2), 227-249.

Yagoubi, J. (2015). Gender approaches to development in high-value added chains : the case of Argan in the Moroccan South-West.

YANG, D. Y.-R., & COE, N. M. (2009). The Governance of Global Production Networks and Regional Development: A Case Study of Taiwanese PC Production Networks. *Growth and Change, 40*(1), 30-53.

Yazan, B. (2015). Three Approaches to Case Study Methods in Education: Yin, Merriam, and Stake. *The Qualitative Report, 20*(2), 134-152.

ANNEXES

ANNEX A

INTERVIEW GUIDE

We followed this approach when conducting all our interviews in the field:

First, the interviewer will introduce herself and briefly explain the purpose of the research. Before proceeding with the questions, the interviewer will present the consent form (verbal or written) and ask for each participant's permission to take notes and digital or audio recordings of the interview in order to facilitate data analysis and report writing. She will then encourage the interviewees to candidly answer all questions, while emphasizing that all answers, opinions, ideas are welcome. Moreover, anonymity will be ensured in the case where a participant wishes to remain anonymous. The interviewee will also be given the opportunity to ask the interviewer questions, suggestions or ask for clarification whenever needed. In the case of the women's cooperatives category, the interview will take a more informal structure as it is imperative to make them feel at ease and avoid them feeling any type of pressure to participate in the interview.

With academics/ development experts

- ◊ What types of jobs does the argan sector offer?
- ◊ Could you briefly walk me through the process of argan oil production?
  - How many people are needed to do the physical labor needed in the oil production ? How long does it generally take to produce enough oil to export to foreign MNEs?
- ◊ Where does funding of the argan projects comes from? Is it mainly granted by the state or are there investments done by foreign MNEs or local actors?
- ◊ Harvest season of argan is between mid-July through the end of August. How do women produce the oil throughout the rest of the year? Is oil production able to provide them with

steady salaries all year round or do salaries fluctuate depending on external factors? What are these factors?

◊ The women in these local cooperatives have extracted argan oil through traditional methods that reflect the socio-cultural context of the region. With the increasing demand for the oil that resulted from the argan boom, and the excruciating effort needed to produce the oil, how can these women extract large quantities of the oil for export without altering its premium quality?
    - While doing research, I have found that one of the processes that were put in place to respond to this rising demand was to make the oil production partially mechanized. Are there currently any risks involved of making the oil production fully mechanized? If yes, how will this translate on the rural communities that harvest and produce argan? Will the argan trade still ensure the sustainable and human development of the argan region local communities?

◊ While researching the literature, I have found that most authors claimed that the possibility of economic gain is the only factor that can lead rural communities and the government to work on the protection of the argan forest. Is economic gain really the only factor that can lead to the conservation of the argan ecosystem or are they overlooked?

◊ Do these women cooperatives depend solely on argan oil production? Are there other products involved?

◊ Are there any other challenges or issues you can think of regarding how local populations are included in the APN?

◊ What is your understanding of how the APN came to be? Have you conducted research on the topic?

With public officials

◊ What are the governance systems that are in place that manage the APN in Morocco?

◊ What are the events that led to the emergence of the APN? Were you there? What role did you play at the time?

◊ Could you describe to me your experience being on the field helping with the emergence/evolution of the APN?

◊ What did the government do to ensure the inclusion of the local communities? Helping with capacity building?

◊ What are the current/past challenges that impeded the inclusion of local communities in the APN? What happened after these challenges emerged?

◊ What kind of international actors were at play here? How did they help? What was the local peoples' perception of them?

◊ What is your opinion on the APN as a development project? Do you think it has achieved all it aimed to achieve? Can you think of successful examples of local peoples' integration in the APN?

◊ Would you say the government's interest is centered more towards the conservation of the argan forest than the development of its people?

◊ Are there policies in place protecting cooperatives from the aggressive competition they're facing on the market?

With local communities

◊ How long have you been a part of the APN? Which VCD initiative did you take advantage of to integrate the APN? Are you federated/state-subsidized?

◊ How many members work in this cooperative? Are you all from the same village? How are tasks divided amongst members? Who handles administrative affairs?

◊ Are you able to access continuous information/knowledge about the argan market?

◊ Do you remember how the APN evolved over time? Were you involved in the process?

◊ What were the reactions to commercializing argan oil from people around here? Were they happy? Worried?

◊ Are you still receiving some type of help from a relevant stakeholder? State funds? Who do you turn to in case of issues?

◊ Are there challenges that occur on the local level for coops/producers in general? What are they? What happens then?

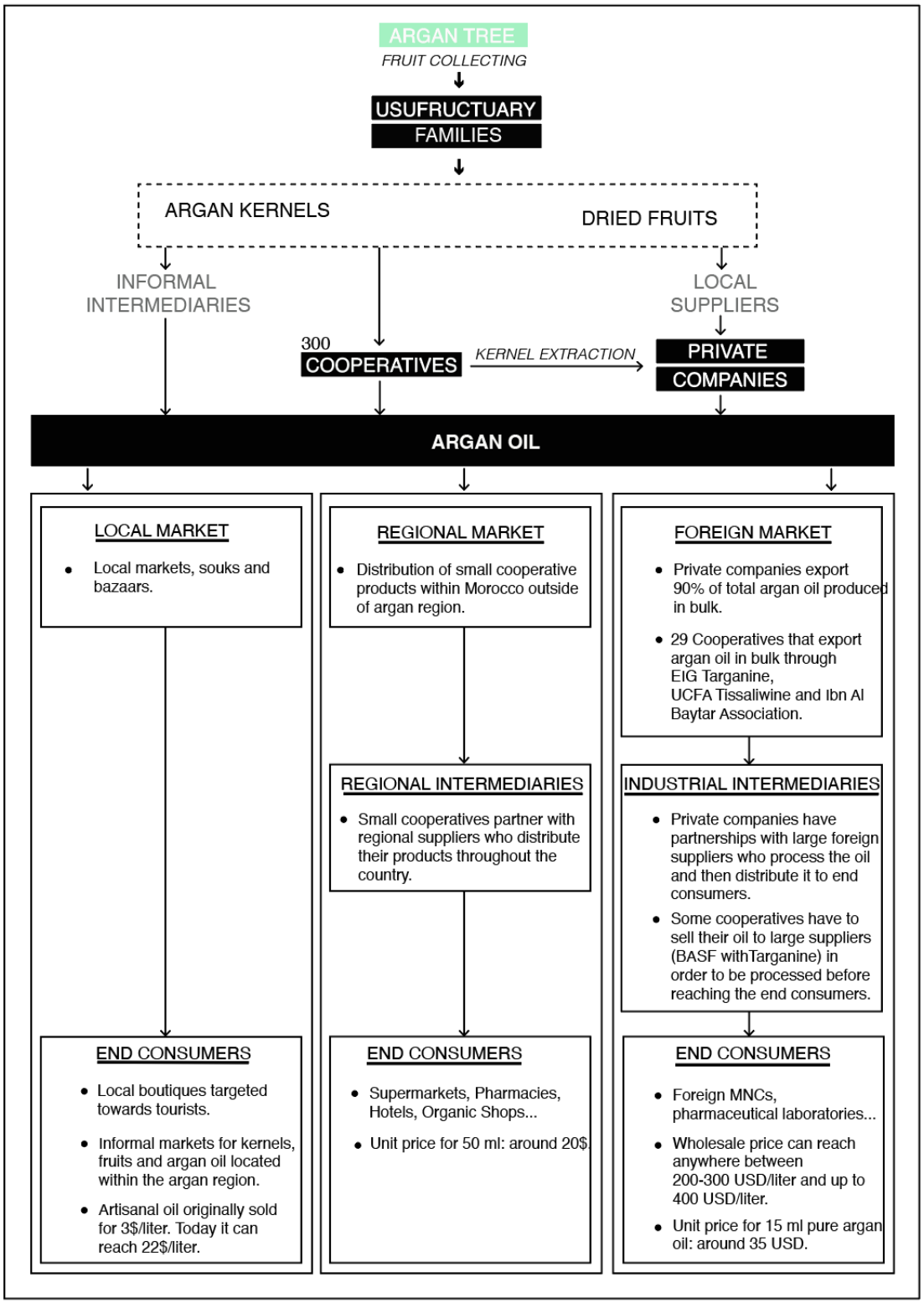
◊ Do you collaborate with other cooperatives? How about SMEs located in the region?

◊ Tell me about your customers. Where are they located? Are you limited to the local market or do you have the capacity to reach larger markets?

◊ How about certifications? Do you have the PGI? IF not, why? What other labels do you have?

◊ Do you only extract argan oil? Cosmetic or culinary? Do you make other argan-related products?

ANNEX B



Source: Author's own collaboration

[Inner Endpaper]