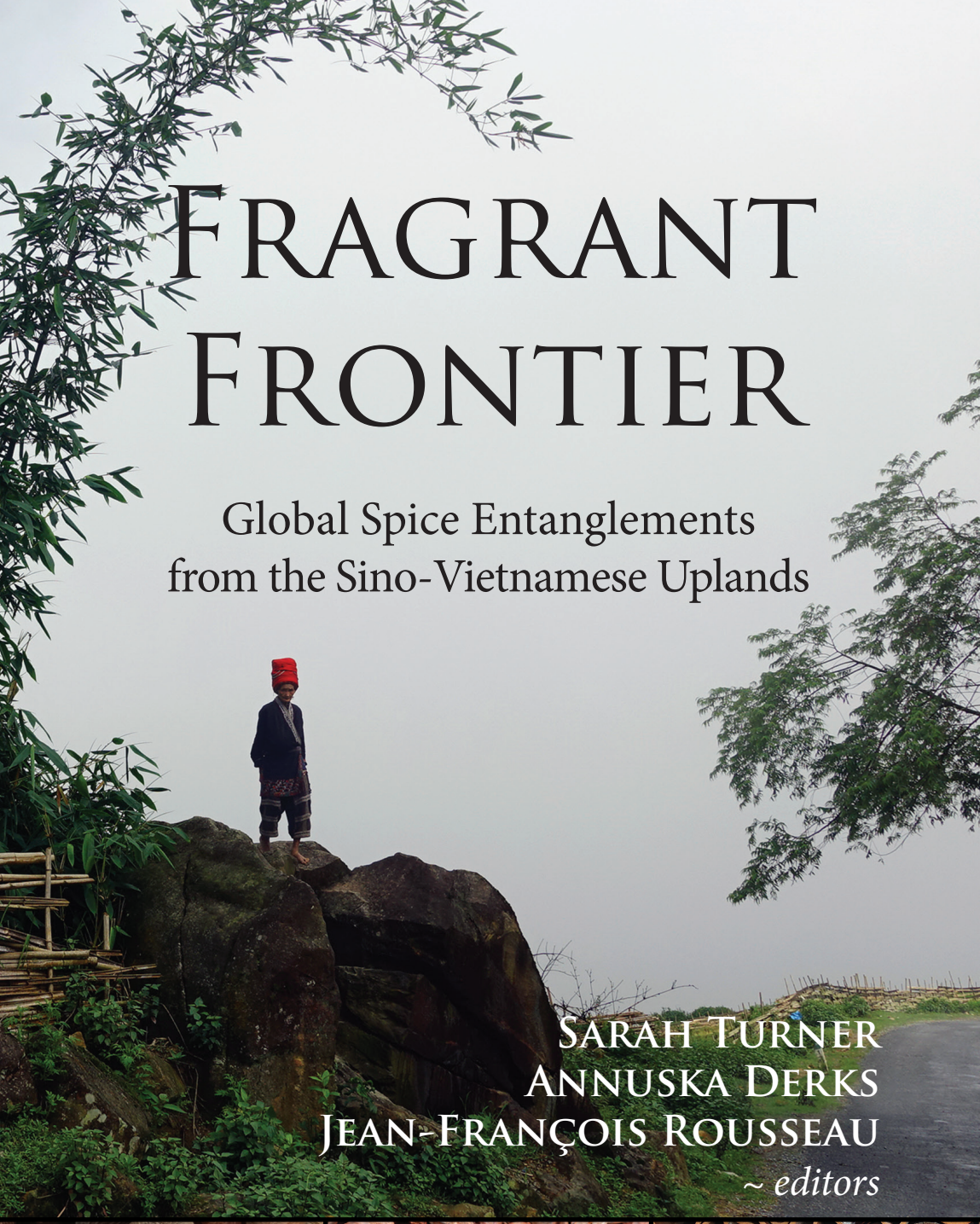
Fragrant Frontier

Global Spice Entanglements from the Sino-Vietnamese Uplands



Sarah Turner
Annuska Derks
Jean-François Rousseau
~ *editors*

Fragrant Frontier is an ethnographically rich study that demystifies the contemporary spice trade originating from the Sino-Vietnamese uplands. Star anise, black cardamom, and 'cinnamon' (cassia) take centre stage as the authors embark on journeys to explore the complex commodity chains and entanglements that move these spices to kitchen tables around the world. The volume investigates the livelihoods of the ethnic minority farmers cultivating these spices across this mountainous frontier, follows the commodity chains from farms to global supermarkets, and examines the commoditization of these distinctive crops. As the implications for the numerous actors involved along these dynamic commodity chains become apparent, we gain nuanced insights into the complex stories of these fragrant spices.

> In this fascinating collection, spices, the Sino-Vietnamese borderlands, global agro-food networks, the political economy of farming, and local livelihoods are brought together in a 'fragrant' mélange in which the authors shed light on two important questions: Why here? And, with what effects? Scholars of agrarian and food studies, livelihoods and Southeast Asian studies will find many enticements here.
> – Jonathan Rigg, University of Bristol

> This compelling study – one of the best integrated volumes I have read – traces the precarious livelihoods of ethnic minority farmers producing spices under two related processes. The first is global commodity chains, which the chapters follow from node to node along long-standing relations of trust. The second is misguided state-driven interventions to limit farmers' land and get them to produce monocrops. These combined processes threaten farmers in the borderlands between Vietnam and China, while international traders of these lucrative spices become rich.
> – Janet Sturgeon, Simon Fraser University

NIAS PRESS
www.niaspress.dk

ISBN 978-87-7694-314-1
9 788776 943141

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NIAS Press is the autonomous publishing arm of NIAS – Nordic Institute of Asian Studies, a research institute located at the University of Copenhagen. NIAS is partially funded by the governments of Denmark, Finland, Iceland, Norway and Sweden via the Nordic Council of Ministers, and works to encourage and support Asian studies in the Nordic countries. In so doing, NIAS has been publishing books since 1969, with more than two hundred titles produced in the past few years.

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Edited by **Sarah Turner**
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Nordic Institute of Asian Studies
NIAS Topics in Asian Studies, no. 75

First published in 2022 by NIAS Press
NIAS – Nordic Institute of Asian Studies
Øster Farimagsgade 5, 1353 Copenhagen K, Denmark
Tel: +45 3532 9503 • Fax: +45 3532 9549
E-mail: books@nias.ku.dk • Online: www. niaspress. dk

Published with the support of the
Swiss National Science Foundation.

A CIP catalogue record for this book is available from the British Library

ISBN 978-87-7694-313-4 Hbk
ISBN 978-87-7694-314-1 Pbk
ISBN 978-87-7694-727-9 open access Ebk
ISBN 978-87-7694-728-6 open access PDF
DOI: https://doi.org/10.55673/CcsA246c

Typeset in 11.5 pt Arno Pro by Don Wagner
Printed and bound in the United Kingdom by Printforce
Cover design: Sarah Turner / NIAS Press

Cover illustrations: Sarah Turner

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Preface and acknowledgements

This collection has emerged from collaborative research projects that the three editors have developed over the past fifteen years, which all the contributing authors have been part of, at different times. Our interest in these three specific spices – star anise, black cardamom, and 'cinnamon' (probably actually *C. cassia*) – has been constantly reinforced as we spend time in the Sino-Vietnamese uplands with local ethnic minority communities, attempting to better understand local livelihoods and the impacts of agrarian change, cash cropping (along with cash booms and busts), extreme weather events, and ever-shifting state policies. The complex dynamics in these uplands have motivated us to draw on a range of ethnographic approaches to embark on this project. We hope that this collection will go some way to demystifying the contemporary spice trade that originates from the Sino-Vietnamese uplands, through our explorations into the commodity chains and entanglements that move these spices to kitchen tables around the world.

We sincerely thank the hundreds of farmers in the Sino-Vietnamese uplands with whom we have held lengthy discussions and whose livelihood experiences are at the heart of this book. We are incredibly grateful for their insights, time, and patience. A large debt of gratitude is also owed to all the local traders, intermediaries, marketplace workers, street vendors, urban residents, wholesalers, exporters, and state officials (at many different levels of government) in Vietnam and China, for their time and enthusiasm for our work. We also thank the overseas importers and retailers who took part in interviews.

In Vietnam, we are indebted to our local fieldwork assistants, including the ever-enthusiastic, resourceful, and conscientious Ngô Thúy Hạnh, with whom Sarah and Annuska have had the great pleasure of working with for over a decade. Also in Vietnam, we sincerely thank Phùng Bá Bằng, Nguyễn An Thịnh, Nguyễn Tuấn Anh and other collaborators for their help with fieldwork access and logistics. We also are very grateful to our ethnic mi-

nority assistants and interpreters in the uplands, including dear friends Chi, Lan Du, Lang, Sho, and Shu.

In China, Xu Yiqiang, James Chen Gang, and Yang Liujin either accompanied us to spice cultivation regions or made sure that we would have positive connections in local villages. Jean-François also wishes to thank Shen Haimei and Xu Jianchu for enthusiastic discussions on cardamom through the years.

The fieldwork of a number of graduate students at McGill University has contributed to underscoring the research in this collection. We are very grateful for the intellectual input of (in alphabetical order) Christine Bonnin, Sarah Delisle, Mélie Monnerat, Dylan Putzel, Patrick Slack, Kate Trincsi, and Claire Tugault-Lafleur. We are also appreciative of the insights of Matthew Parsfield from the University of Zurich.

A fantastic team of student research assistants has helped finalise this collection, some of whom are also authors of different chapters. We wish to thank Michelle Kee and Patrick Slack for their work on the accompanying 'StoryMaps', and Thomas Kettig, Nguyễn Ngọc Bình, Celia Zuberec, and Jennifer Bartmess for copyediting work. A special thanks to Peter Garber for his meticulous attention to detail while copyediting the final draft. Amélie Lauzon patiently made final touches to the maps published in this collection, while Ammar Adenwala designed the index.

Heartfelt thanks to Gerald Jackson at NIAS Press for his unwavering enthusiasm for this project. We also sincerely appreciate the careful copy-editing of Monica Janowski and the painstaking typesetting of Don Wagner. Thanks also to Jean Michaud for brainstorming numerous different elements along the way, and to the two anonymous reviewers who provided extremely constructive feedback on our first draft. We acknowledge funding from the Social Sciences and Humanities Research Council, Canada, and the Swiss National Science Foundation (SNSF) which supported much of this research. Funding from the SNSF also enabled us to publish this volume open access.

Fundamental to the success of this collection has been the hard work and patience of all the contributors. Their research and ongoing enthusiasm for intellectual debate and critical reflection on these topics have provided the foundations for this endeavour and we hope our discussions will continue for many years to come.

Sarah Turner, Annuska Derks, Jean-François Rousseau

Accompanying virtual spice StoryMaps

Please explore the three virtual 'StoryMaps' that we have designed for the spices we focus on here. These visually depict the commodity chains and actors that star anise, black cardamom, and 'cinnamon' are entangled with, from upland ethnic minority cultivators in the fragrant frontier of the Sino-Vietnamese uplands to global consumers. They can be viewed at: https://spicetrade3.wordpress.com/story-maps/ or at these links/QR codes:

Star anise: https://storymaps.arcgis.com/stories/9ec88b7f62d74ba588561ee7cbf43eba

Black cardamom: https://storymaps.arcgis.com/stories/86ccb014eed74ff1a7e4f6deafd0d7f8

'Cinnamon' *(C. cassia)*: https://storymaps.arcgis.com/stories/cb55d2dd5b1f4abdb62a8d18c4f0609b

Contributors

Annuska Derks is an Associate Professor at, and co-director of, the Department of Social Anthropology and Cultural Studies, University of Zurich. She is a social anthropologist specializing in Southeast Asia, in particular in Vietnam and Cambodia. Her research interests include issues of development and social transformation, migration, labor bondage, gender, and the social lives of spices and everyday things. Her newest research focuses on energy and the making of innovation in Vietnam. Among her recent publications are the co-edited volume *Methodological Approaches to Societies in Transformation: How to Make Sense of Change* (Palgrave Macmillan, 2021) and the special issue 'Beyond the State? The moral turn of development in Southeast Asia' (*South East Asia Research*, 2020), co-edited with Minh T. N. Nguyen.

Michelle Kee is a master's student in the Department of Geography, McGill University, Canada. Her current research focuses on mobility justice and everyday experiences of infrastructure in urban Vietnam. She also studies global commodity chains and the everyday politics of graffiti, and has published on the latter in *Area*.

Jennifer C. Langill is a doctoral candidate in the Department of Geography at McGill University, Canada. She is a feminist development and human-environment geographer, and is currently researching rural and agrarian-based livelihoods in the Global South. She is specifically interested in the relationships between social and political marginalization, livelihood activities, and individual lifeworlds. Her current doctoral project examines intergenerational livelihood transitions for Hmong populations in northern Thailand, and the intersectional outcomes of these political, economic, and environmental changes. She has recently published in *Singapore Journal of Tropical Geography*, *Ambio,* and *Gender, Place and Culture,* and is co-editing a forthcoming special issue, 'Towards feminist geographies of livelihoods', with Ann M. Oberhauser.

Sango Mahanty is a Professor in the Resources, Environment, and Development Program at the Australian National University's Crawford School of Public Policy. She is a critical geographer who studies the politics of green economies, frontier markets, and nature-society transformations in Cambodia and Vietnam. Sango's upcoming book, *Unsettled Frontiers: Market Formation in the Cambodia-Vietnam Borderlands* (2022, Cornell) explores these related themes within this rapidly changing border region. Her current research is studying how communities and civil society respond to nature–society rupture at hydropower dam sites in mainland Southeast Asia.

Ngô Thúy Hạnh is an independent researcher based in Hanoi, Vietnam. She has worked for nearly 20 years alongside foreign researchers on social science topics ranging from rural livelihoods to migration, medical care, sexual practices, and urban cultural change. She is also Project Manager at Humanitarian Service for Children of Vietnam, a US charity organization working in Vietnam.

Jean-François Rousseau is an Associate Professor at the School of International Development and Global Studies at the University of Ottawa, Canada. He is a development geographer whose research focuses on the relationships between agrarian change, infrastructure development, and ethnic minority livelihood diversification in Southwest China. He is co-editor of *The Political Economy of Hydropower in Southwest China and Beyond* (Palgrave Macmillan, 2021), and has co-authored *Gambling with the Land: The Contemporary Evolution of Southeast Asian Agriculture* with Rodolphe De Koninck (NUS Press, 2012). His research has also appeared in *World Development*, *Regional Environmental Change*, *Asia Pacific Viewpoint* and *The Singapore Journal of Tropical Geography*, among other places.

Patrick Slack is a is a doctoral candidate in the Department of Geography, McGill University, Canada. His current research focusses on longitudinal ethnic minority livelihoods and borderland territorialisation schemes in northern upland Vietnam, in addition to how contemporary state actors at provincial and district levels tailor national rural development programmes to meet perceived local needs. His master's investigated intergenerational ethnic minority livelihood change in a northern Vietnamese borderland district with an emphasis on black cardamom cultivation and livelihood diversification.

Sarah Turner is a Professor in the Department of Geography, McGill University, Canada. Her research focuses on the ways by which individuals

who are marginalised economically, politically, and/or ethnically, make a living in rural and urban Asia. Her current projects focus on ethnic minority livelihoods in the Sino-Vietnamese borderlands, including farmer everyday politics when faced with inappropriate agrarian programmes and infrastructure projects. She also studies informal economy livelihoods and resistance tactics among street vendors and motorbike taxi drivers in Hanoi, Vietnam. She has co-authored *Frontier Livelihoods: Hmong in the Sino-Vietnamese Borderlands* with C. Bonnin and J. Michaud (University of Washington Press, 2015), and is an editor of *Geoforum* and of the *Journal of Vietnamese Studies.*

Xu Yiqiang is an Associate Professor at the School of Law and Sociology, Yunnan Normal University, China. His research focuses on upland ethnic minority groups in Southwest China, especially the religious beliefs, rituals, and traditional medicines of the Hani people. His past research has also included a focus on the planting and circulation of spices such as cardamom and star anise in ethnic minority areas. He is the author of *An Anthropological Study of the Traditional Medicines of the Hani People* (China Social Sciences Press, 2016).

Zhenting Zuo is an Associate Professor at the Switzerland Research Center at Guizhou Normal University in China. His research focuses on ecological anthropology and cross-border ethnic groups, primarily in China, Southeast Asia, and Switzerland. His current projects include a focus on ethnic minority livelihoods in Southwest China (Yunnan and Guizhou), especially in the contexts of major infrastructure projects and cash booms. He also studies more traditional areas of cultural anthropology, such as the social and cultural interpretation of traditional ethnic rituals and the development and protection of intangible cultural heritage, with a focus on the Hmong ethnic group.

Celia Zuberec is an alumna of the Department of Geography, McGill University, Canada. Her undergraduate research focused on how youth migrant street vendors navigate a highly restrictive street vending ban within Hanoi, Vietnam. She was also centrally involved in a project investigating the emergence and disappearance of Vietnamese Creative Hubs. Her current research interests include informal livelihoods, urban policymaking in the Global South, and urban inequality. She has published in *Applied Geography*.

CHAPTER 1

The Fragrant Frontier

Conceptual and contextual introductions

Sarah Turner, Annuska Derks, and Jean-François Rousseau

THE FRAGRANT FRONTIER

Since its inception over two millennia ago, the spice trade has connected and transformed the environments, politics, cultures, and cuisines of vastly different societies around the world. As a 'fantasy substance' (Morton, 2000: 8) bestowing 'magical qualities' (Freedman, 2008: 5), a 'catalyst of discovery' (Turner, 2008: xii), and among the first 'global commodities' (Freedman, 2008: 1), spices are more than mere food flavourings. Although we frequently find a variety of spices in our kitchens' cupboards, their origins and trade routes retain something of a mythical allure. In this book, we seek to demystify these roots and the spice trade networks that start in the Sino-Vietnamese uplands. Within this frontier, different ethnic groups are involved in growing black cardamom (*Lanxangia tsaoko*), star anise (*Illicium verum*) and 'cinnamon' (probably *Cinnamomum cassia*, but commonly referred to as cinnamon) for local, regional, and global markets. The production and trade of these spices have numerous social, cultural, economic, and geographical expressions. Some of these are centuries old, while others are a result of changing agro-ecological conditions, recent state policies, or innovative trade opportunities. As such, we believe that these three spices are fascinating cases with which to explore the intersections of the lived practices of spice cultivation and production, and the globally expanding markets for 'exotic' spices.

This collective book has three objectives. The first is to foreground the experiences of the upland frontier farmers cultivating these spices, with a focus on the livelihood impacts they are coping with and adapting to, from increases in extreme weather events affecting their crops in disastrous ways,

to pressures from state officials to move into more 'promising' cash crop endeavours, to the stressful impacts of volatile global markets. The second objective is to investigate the diverse actors involved in the commodity chains that move and transform these spices from upland farms to global markets, including trade intermediaries, state officials, export and import companies, and retailers. We map the flows of these spices and tease out the power imbalances that create advantages and disadvantages for individuals along these global trade routes. Third, we focus on the value-creation tactics that different individuals and companies along these commodity chains employ to trade these spices, analysing the commodification of these crops across a spectrum of actors and places.

The ethnic minority farmers at the heart of this collection are primarily situated at the starting nodes of the commodity chains explored here, entangled directly with the cultivation of these spices. Their villages rest within the Sino-Vietnamese borderlands that are part of the broader Southeast Asian Massif. This Massif extends southeast from the Himalayas and the Tibetan Plateau and incorporates the highlands – above 300–500 metres in elevation – that dominate the valleys drained by the lower Brahmaputra, Irrawaddy, Salween, Chao Phraya, Mekong, and Red Rivers and their tributaries (Michaud et al., 2016). More specifically, within China, the farmers growing these spices tend to be members of the country's 55 officially recognised (since 1981) 'minority nationalities' (*shaoshu minzu*). Of these groups, 30 have their homelands in upland Southwest China with a regional population of 62 million *shaoshu minzu* at the time of the 2010 census. Just across the borderline in Vietnam, there are 53 'minority nationalities' (*dân tộc thiểu số*), officially recognised as such since 1979. Based on the 2019 census, the number of minorities living in Vietnam's northern midlands and mountainous provinces totals over seven million individuals (General Statistics Office, 2020).

Across the Sino-Vietnamese uplands, the farmers growing black cardamom are most often Hmong (part of the Miao group in China) or Yao (Dao), and to a lesser extent Hani and Yi (Lô in Vietnam). Meanwhile, star anise cultivators are predominantly Nùng or Tày, while Yao, and to a lesser extent Hmong, tend to 'cinnamon' trees. Most of these populations base their livelihoods around a core staple crop of rice (dry or wet/terraced) or maize, complemented by produce from home gardens including vegetables, fruit, herbs, and spices. Households here also rear a range of livestock includ-

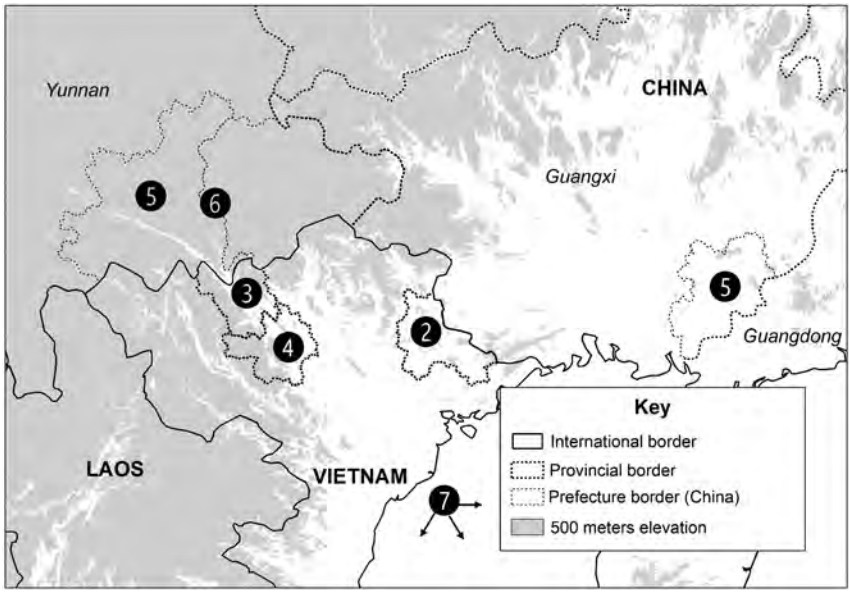
ing pigs, goats, chickens, and other fowl, with water buffalo and/or horses raised in some areas for ploughing and, in the case of buffalo, sometimes also for sacrifice. Small-scale trade has always been a livelihood feature of the populations inhabiting these uplands, consisting of farm-grown crops and animals, home-made alcohols, home-woven and embroidered textiles, and non-timber forest products (NTFPs). Forests have been important sources for both timber and non-timber forest products, including animals, birds, honey, mushrooms, bamboo shoots, and various herbs, for both household consumption and trade. Many ethnic minority groups in these borderlands also maintain animist traditions that include the worship of sacred trees, forests, and mountains, although some communities follow Christian beliefs and practices (Corlin, 2004; Turner et al., 2015; Ngo, 2016).

Many of these activities remain central to the livelihoods of a number of ethnic minority households across the Sino-Vietnamese uplands. Yet, important transformations are also underway. In both China and Vietnam, agrarian transitions increasingly integrate farming households into the market economy, while state policies impact upland rural livelihoods through a range of 'development' schemes (Turner et al., 2015). Some upland residents are hesitant to change livelihood practices upon which they have relied for generations, while others readily adopt new opportunities offered by market liberalisation, transport infrastructure expansion, agrarian technology diffusion, and increasing access to global commodity markets. The integration of traditional and modern agrarian technologies and practices can nonetheless create cultural and economic dilemmas, many of which become evident in this collection regarding the commercialisation of upland spices. Moreover, the rights of communities to continue to access forests for NTFPs or forest-based spiritual practices have become increasingly regulated by a range of different state authorities, making forest management extremely contested and complicated (Xu and Ribot, 2004; McElwee, 2016). On both sides of the borderline, forest management policies and their implementation have changed frequently in recent decades, often leading to unclear classifications of forested areas and ambiguous control of the territories where spices can grow, as we investigate further in this collection, especially in Chapter 3 for northern Vietnam, and in Chapters 5 and 6 for southeast Yunnan, China.

The fact that these ethnic minority spice cultivators reside in single-party socialist states plays a substantial role in shaping their livelihoods and everyday experiences. However, even during pre-socialist times, the political

culture of Han Chinese rulers fashioned centre–periphery relations, with long distances from the Han 'civilised core' consigning peripheral residents to be labelled as living in its 'less evolved' and 'less civilised' margins (Harrell, 1995; MacKerras, 2003; Lary, 2007). The inhabitants of this frontier region were thus not only numerical minorities but were discursively considered of minor importance. When Han state officials interacted with the most distant of such groups, they described them as barbaric, unruly, and dangerous. Today's dominant Chinese state discourses regarding China's minorities arguably continue such trains of thought while reflecting customary Confucian conceptions of sibling relationships, with minority 'younger siblings' needing the help of Han 'older siblings' to progress and develop. At the same time, ethnic tourism represents a booming industry, with the staging of minority cultural differences holding exotic, mysterious, and even erotic appeal for Han consumers (Nyíri, 2006).

With heavy influence from China, the dominant state perception of majority–minority relations is similar in Vietnam. The state tends to view historical and cultural differences between upland ethnic minorities and lowland majority Kinh through an essentialist lens, with paternalistic development discourses positioning the 'big brother' (the ethnic majority Kinh) vis à vis



Map: J.-F. Rousseau

Map 1.1. Our case study locales with their respective chapter numbers

the 'little brother' ('immature' minorities) in guiding policy decisions (see Koh, 2002; Duncan, 2004; Scott, 2009; Salemink, 2011). Although a small number of Kinh officials now distance themselves from such paternalistic views, these understandings continue to linger in many provincial and local government offices, as well as in a number of academic institutions (Turner et al., 2016). In both countries (albeit they are not alone in this stance), such visions result in very slow progress towards the designing of policies that take minority worldviews and priorities into account. This is certainly the case for agrarian policies and extension services that directly impact spice cultivators (Turner et al., 2015; Lam, 2020).

In the rest of this chapter, we introduce the three spices at the core of our study more specifically, looking at their historical emergence as part of the global spice trade before focusing on their scientific taxonomies and cultivation methods in the Sino-Vietnamese uplands. We then present the conceptual framing for this collection, broadly situated within debates regarding frontiers, borderlands, agrarian transitions, commodity chains, and upland livelihood concerns. As the book unfolds, in Chapters 2 through 7, we analyse how star anise, black cardamom, and 'cinnamon' are woven into upland livelihoods, reflecting upon the diversity of ways by which farmers and their spice-based livelihoods are implicated in and impacted by a range of different and complex dynamics (Map 1.1.). These include specific supply and demand trends (Chapter 2), state policies (Chapter 3), external value creation (Chapter 4), climate variability (Chapter 5), and cash crop booms and busts (Chapter 6). We also investigate the different means and techniques by which spices are marketed as they move from these mountainous borderlands to regional and global markets, and the marketing makeovers they undergo to appeal to consumers in the Global North (Chapter 7).

FRAGRANT SPICE TRADES IN ASIA

The 'first era' of the global spice trade – antiquity

The spice trade significantly precedes the advent of modern-day nation-states. Long before Europeans had even seen, tasted, or smelled any of the aromatic 'exotic' plants that we now call spices, caravans and sailing ships were bringing them from Asia to the Arab world and Africa (Czarra, 2009). Alexandria became a particularly important cosmopolitan trade hub between the East and

West, following the establishment of this port on Egypt's Mediterranean coast in 331 BC by Alexander the Great (Takács, 1995; Pollard and Reid, 2006). In the period after the Romans took control of Egypt in 30 BC, Alexandria held a near monopoly on all manner of goods, including spices imported to the Mediterranean region from islands in the Indian Ocean, India, Persia, Arabia, and China (McLaughlin, 2010). Indeed, merchants from the Arabian Peninsula and Persia took advantage of their strategic position to facilitate the flow of spices, while shrouding the origin of these spices in fantastic tales and mystery to maintain their trade monopoly (Stone, 1964). A highly organised trade network, comprising both overland and maritime routes was gradually established, with spices from Asia being received at intermediary ports such as the island of Hormuz in the Persian Gulf. These spices were then transported to Greek and Roman territories, either overland via Constantinople, or shipped from port cities such as Gaza or Alexandria (Stone, 1964; Amar, 2003).

The earliest accounts of cinnamon discussed a 'cinnamon route' used by traders travelling by sea between Indonesia and Madagascar, and further along the African Coast to the Nile Valley.[1] One account detailed Egyptian Queen Hatshepsut (circa 1500 BC) welcoming five canoes filled with fragrant spices, including cinnamon (Miller, 1969; Ravindran and Nirmal Babu, 2004). Biblical references indicate that cinnamon and 'anise' were well known at that time. However, this was almost certainly not star anise but anise seed, a plant native to the Eastern Mediterranean and Southwest Asia with a taste and fragrance similar to those of star anise. It has been suggested that star anise itself was a more recent addition to this trade, possibly not reaching the Near East or Europe during antiquity. Sources indicate that star anise began to be traded from China via land and sea in the 16th century, and that it was most often processed for its oil (Simoons, 1991).

By the Middle Ages, spices had made their way into European gastronomy. Their relative scarcity, mysterious origins, strong flavours, and (ascribed) medicinal properties made them highly prized objects of conspicuous consumption, and as Freedman (2008: 40) has pointed out: 'Spices were among the many indices of class distinction'. Their value also stimulated the trade of these precious substances. Cities across the Mediterranean Sea flourished as nodes in spice trade networks, with merchants in outposts such as Genoa, Sicily, and Tunis receiving spice shipments via Levantine and Black Sea ports

1 It should be noted here that it is not clear which species are referred to. Both cinnamon and *Cassia* are mentioned in the Old Testament, Sanskrit texts, and Greek medicinal works (Czarra, 2009: 10).

(Donkin, 2003). Of these Mediterranean cities, Venice became the most significant, holding a near monopoly on the spice trade by the early 15th century (Donkin, 2003). At that time, Europe was completely dependent on Arab, Muslim, and Persian intermediaries of the Ottoman Empire and Egypt for the provision of spices (Freedman, 2012; Czarra, 2009). Wary of this dependence and keen to establish their own foothold in the trade, European powers like Portugal began sponsoring voyages of 'discovery' in search of alternative, more direct maritime routes to the famed Spice Islands east of India (Peacock, 2018). Towards the end of the 15th century, explorers including Christopher Columbus came upon the Americas and the Caribbean islands in their search for new spice routes (Kelsey, 2016). Meanwhile, Portuguese explorer Vasco da Gama circumnavigated the coast of Africa to reach India (Kelsey, 2016), paving the way for the Portuguese 'discovery' of the spice islands of the Moluccas (Maluku Islands) in 1511–1513 (Freedman, 2012).

The 'second era' of the global spice trade – European control

The quest for spices has often been described as a driving force in the 'age of exploration' (Freedman, 2008; Czarra, 2009). European powers searched and competed for control over alternative trading routes and the market for spices from South and Southeast Asia. As a result, the structure of the spice trade shifted towards a dominance of overseas trading companies, such as the Dutch and English East India Companies, both established in the early 17th century. The operational capacities of these companies went beyond strictly commercial activities, as they were granted powers by their respective governments to manage diplomatic relations, develop armies, and conquer territories. They were able to govern these territories independently, acting as sovereign states in their charter areas (Clulow and Mostert, 2018).

The Portuguese were the first European power to gain direct access to the Moluccas. In the early 16th century they quickly assumed control over spice-producing areas in the region, namely India's Malabar Coast, Ceylon, Java, Sumatra, and the port of Malacca (Rosengarten, 1969). However, the British and the Dutch were also keen to gain access to the East Indies spice trade through their subsidiary trading companies, in defiance of the 1494 Treaty of Tordesillas, which divided all newly 'discovered' territories between Spain and Portugal (Rosengarten, 1969). Over the course of the 17th century, the Dutch East India Company successfully employed a strategy of military conquest and calculated alliances with local sultans to oust their

European competitors – the Portuguese and the British – while establishing a spice trade monopoly in the Banda archipelago and Moluccas (Blussé, 2006; Mostert, 2018). While Dutch control over the spice trade eventually waned towards the end of the 18th century, the French were successful in stealing and transplanting nutmeg and clove seedlings for cultivation on French territories with suitable climates, including the islands of Reunion, Mauritius, and the Seychelles (Turner, 2008).

The French became further involved in the cultivation and trade of spices in Southeast Asia after their conquest of Tonkin (roughly today's northern Vietnam) which, in union with Annam and Cochinchina, consolidated France's control over much of what is now contemporary Vietnam, in 1887. Under French rule, records indicate that increasing quantities of black cardamom, star anise, cinnamon, and pepper were cultivated and traded between 1900 and 1940 (Takahashi, 2017). However, pepper was apparently the most important exported spice by weight at that time, with Miller (1947) documenting pepper exports peaking at 6,327 metric tonnes in 1909. The production of cinnamon, cultivated primarily in Quảng Nam and Quảng Ngãi Provinces (central and south-central present-day Vietnam), rose from 250 metric tonnes in 1900 to about 1,000 tonnes per year in the 1930s. Records show that black cardamom was also traded from French Indochina during this period, predominantly grown in regions that are part of present-day Cambodia and Laos, with 400 metric tonnes of black cardamom exported annually in the 1930s (Miller, 1947).

Eberhardt (1907), in his work *La badiane et sa culture en Indo-Chine*, noted that star anise or *badiane* played an important role in Indochinese agricultural production. Eberhardt claimed that the plant originated in southern China and was planted in Tonkin by Chinese migrants when the region was under the jurisdiction of the Qing Dynasty (ibid.). In contrast, Deite and Brannt (1892) proposed that star anise is native to today's Lạng Sơn Province, in northern Vietnam. In any case, during the early 1900s star anise was being cultivated both in present-day Lạng Sơn Province as well as in south-west and west-central Kwangsi, what is now the Guangxi Zhuang Autonomous Region, China (Simoons, 1991). Simoons (1991) has added that all of the star anise oil produced in Tonkin at that time was shipped to France. Star anise from Kwangsi was transported either to Tonkin or to Hong Kong from where it was exported internationally, with the British East India Company purchasing sizable quantities (ibid.).

A careful thematic search through reports written by military personnel based in the northern uplands of Vietnam reveals little about spice production there at the beginning of the 1900s. Diguet (1908) briefly identified '*la cardamome*' as being one product that Black Thái chiefs to the west of the Red River would retain a large share of from their villages, while Lunet de Lajonquiere (1906) mentioned both star anise and cardamom in passing, saying that star anise was cultivated by Tày. Two decades later, Abadie (1924) talked very generally of upland ethnic minority households using spices, without offering further details.

The 'third era' of the global spice trade – the contemporary scene

While there has been notable attention paid to the history of the global spice trade and how spices emerged to have 'global economic significance' (Freedman, 2008: 3), far less focus has been devoted to the current era, in which spices have become available across continents and used in a range of commercial fields, including and beyond food (Czarra, 2009). For this reason, in this collective book we suggest a contemporary revisiting of spice commodity chains, paying particular attention to how spices are currently being grown, processed, transported, traded, reimagined, and marketed from small-scale farms in the Sino-Vietnamese uplands to regional wholesale markets, international export centres, and finally grocery stores and kitchens worldwide. Concurrently, we examine the role of spices in providing sustainable livelihoods for ethnic minority populations in the Sino-Vietnamese borderlands. Such research is all the more urgent as these upland populations confront growing pressures to 'modernise' and integrate their activities into the market economy. In addition, it is still unclear how changing land access and increasing climatic variability shape their livelihood transformations.

BECOMING MORE ACQUAINTED WITH THE THREE SPICES

Black cardamom

The ginger family *Zingiberacae* contains two genera with a number of different species of cardamom (Aubertin, 2004). Native to southern India, green or 'true' cardamom is known as *Elettaria cardamomum* and is used widely in foods and drinks (Lim, 2012). Black or large cardamom is denoted by the genus *Amomum* and encompasses numerous closely related species

including *Amomum aromaticum, Amomum compactum, Amomum subulatum,* and *Amomum tsao-ko* (Aubertin, 2004). Recently, *Amomum tsao-ko* has been distinguished by a taxonomic study as *Lanxangia tsaoko*, and this is the species that we focus on here.

Called *cǎoguǒ* (草果) in Mandarin and *thảo quả* in Vietnamese, black cardamom is an herbaceous, perennial plant that prefers shaded environments. Black cardamom looks fairly similar to a tall ginger plant or a type of flax, and it is native to the forested areas on both sides of the Sino-Vietnamese uplands (de Boer et al., 2018), while also able to be cultivated under tall canopy forest cover (Figure 1.1.). The plants produce fruit within four to five years, which are then picked and usually dried, either over wood-fuelled fires or in ovens. Black cardamom is popular in a range of regional dishes on both sides of the borderline, but it is primary used as an ingredient in traditional Chinese and Vietnamese medicines to treat gastritis, stomach-aches, and other digestive ailments (Turner, 2017).

This relatively highly priced spice requires comparatively little labour or fertiliser compared to many other upland crops – important factors that explain the growing popularity of black cardamom cultivation in recent decades among ethnic minority farmers who have access to the appropriate forests. In southeast Yunnan, where cardamom was previously gathered from the forest for household use, cardamom is now a notable non-timber forest product cultivated as a cash crop (McKinnon, 2011). Similarly, in the northern upland provinces of Vietnam, residents historically used cardamom for a variety of purposes, including cooking and the treatment of ailments, both for people and for their prized water buffalo. Because of the great demand for black cardamom in China and its relatively high financial value, trading this spice can provide farmers with improved financial security if their families experience food shortages (Tugault-Lafleur and Turner, 2009). It also affords them the financial resources to purchase industrial farming inputs such as hybrid seeds and chemical fertilisers, to pay for education and healthcare, and to hire additional farming labour (Rousseau et al., 2019).

In upland Vietnam, especially in Lào Cai Province, ethnic minority Hmong and Yao have become the primary cultivators of black cardamom for trade, with Hani also entering this cultivation option to a lesser extent. In general, these farmers have integrated cardamom into their semi-subsistence farming strategies as a means of diversifying their sources of financial capital as different features of the agrarian transition and related state policies impact

their livelihoods. Slack discusses this process further in Chapter 3 of this collection. During the harvest months from August to October, black cardamom is typically sold to intermediaries and then starts its journey along complex commodity chains, which Rousseau and Xu investigate in Chapter 5.

Since 2008, an increasing number of extreme weather events including snow, freezing rain, and hail, as well as prolonged droughts, have caused extensive damage to cardamom crops across this frontier region, undermining the livelihood security afforded by cardamom cultivation on both sides of the borderline. With little to no support from their respective states, farmers in both southeast Yunnan and northern Vietnam have had to adopt new coping and diversification measures in order to secure their livelihoods, which we examine in Chapters 3, 5, and 6.

Previous work on black cardamom in the region has explored the role this spice played in the livelihood portfolios of Hmong and Yao ethnic minority households in upland northern Vietnam as a means to gain cash income (Turner, 2012a; 2012b; 2017). Questions have also been raised regarding the role of cardamom cultivation in forest degradation in specific upland areas (Jadin et al., 2013). Additionally, Tran et al. (2004) have studied the biodiversity of black cardamom, the socio-economic conditions that underlie its cultivation, and the role the commodity played in household economies. Meanwhile, Nguyen (2014) has focused on tensions arising between cardamom-based rural livelihoods and forest conservation in Lào Cai Province's Hoàng Liên Sơn National Park. Extending such investigations to southern Yunnan, Turner et al. (2015) and Putzel (2017) have noted the important role black cardamom has played there as a cash crop for ethnic minority cultivators. Furthermore, Rousseau et al. (2019) and Rousseau and Xu (2020) have examined the impacts of extreme weather events on black cardamom cultivation and the resultant effects on local livelihoods in Jinping County, southeast Yunnan; they expand upon this work in Chapter 5.

Chinese academic sources discussing cardamom have tended to allocate less attention to smallholder farmers and instead have probed different avenues that could enhance Yunnan's black cardamom production, which accounts for 90 per cent of the national total. These avenues have included creating a 'Yunnan cardamom' designation and strategies to lessen the environmental impacts associated with plantation expansion (e.g., Dai et al., 2004; Wei et al., 2011; Tan et al., 2012a; 2012b). Some China-based media outlets have highlighted the recent sequencing of the cardamom genome

Figure 1.1. Black cardamom growing in Lào Cai Province, Vietnam. **Colour** p. 146.

(Yunnan Daily, 2021), while others have presented cardamom as a potential remedy for malaria (China Medicine News, 2020) and even COVID-19 (Shanghai News of Traditional Medicine, 2020; also see Afterword of this collection). The price spike for cardamom from the mid-2010s has likewise drawn media attention (China Medicine News, 2016; Medicine Economic News, 2017), together with the more recent emergence of cardamom by-products such as cardamom soap and wine (Yunnan Daily, 2019).

Vietnamese news outlets have emphasised the potential for black cardamom production to alleviate rural poverty in Lào Cai Province, reporting on ethnic minority farmers who have prospered after diversifying their crop production to include this spice (Quoc Hong, 2009; Thu Hang, 2017).[2] Because of this increased cultivation of black cardamom however, recent reports have indicated that the Lào Cai provincial government is aiming to limit the expansion of cardamom to mitigate deforestation deemed to be connected to its cultivation (The Long, 2019). Vietnam-based journalists have also noted these deforestation-related concerns in Lai Châu and Yên Bái Provinces (Ngoc Truc, 2012; Xuan Truong, 2012), with Slack analysing the possible implications for cultivators in Chapter 3 of this collection. Elsewhere

2 When known, the pen names for Vietnamese journalists are written in full throughout this collection, for greater accuracy.

in the Southeast Asian Massif, a number of studies in Laos have situated black cardamom collection and cultivation within the increasing trend of trading agro-forest products to supplement rural livelihoods, with China-based intermediaries facilitating an important portion of this trade (Kvitvik, 2001; Aubertin, 2004; Ducourtieux et al., 2006; Yokoyama, 2010; Castella et al., 2013; Choocharoen et al., 2013). While beyond the focus of this collection, the role of the state and non-government organisations (NGOs) in Laos has raised interesting comparisons with the Sino-Vietnamese uplands, which Slack briefly reflects upon in Chapter 3.

Star anise

Star anise, or *Illicium verum* (called 八角 – *ba jiao* in Mandarin, and *hoa hồi* in Vietnamese) is a star-shaped fruit within the Magnolia family native to southeast China, and it is often called Chinese star anise. The fruit grows on evergreen trees which reach heights of 15 metres, prefer high humidity, and normally start to yield fruit after about 10 years (Figure 1.2.; George, 2004). A similar species found in Japan and Taiwan, *Illicium anistatum*, was long believed to be identical, but it is actually highly toxic and unsuitable for human consumption (Wang et al., 2011). Other similar species within the same genus include *Illicium parviflorum* and *Illicium floridanum*, found in the United States, *Illicium majus* from the Malay Peninsula, and Chinese *Illicium lanceolatum* (George, 2004; Wang et al., 2011). To add confusion, anise oil and star anise oil are both officially recognised as 'anise oil' in the US, with the terms used interchangeably (Okuyama, 2005).

Star anise has been grown by many farmers on both sides of the Sino-Vietnamese borderline for generations as part of their composite semi-subsistence livelihood approaches. Once trees reach maturity, they typically yield two main harvests per year in the spring and fall. The latter accounts for as much as 80 per cent of the annual harvest. In order to ensure the highest essential oil content, the star anise fruit are picked just before peak ripeness. The cultivated fruit are then dried and sometimes also dyed to give them the brightness that traders seek, as described by Turner and Derks in Chapter 2 of this collection. Given the correct care and conditions, star anise trees can live for up to 200 years. Nonetheless, from propagating star anise seedlings to protecting young trees from insects, animals, parasitic weeds, and theft, successfully cultivating star anise trees is a laborious and time-con-

suming process. Star anise is a frequently used condiment in Chinese and Vietnamese cooking and an important ingredient for traditional Chinese and Vietnamese medicines. It is also found in cosmetics and in a variety of alcoholic beverages (Han and Ning, 2006).

While star anise grows in many areas of southern China's borderlands, Langill and Zuo's investigation in Chapter 6 of this collection focuses on star anise farmers from Wenshan Prefecture, Yunnan Province. While traditionally part of upland farmer livelihood portfolios, cultivation has boomed and busted fast in Wenshan Prefecture since the late 1990s, a process linked to state encouragement to reforest rural areas. Langill and Zuo explore what this cycle has meant for local farmer livelihoods. Meanwhile, over the border, within the northern Vietnamese provinces of Lạng Sơn, Quảng Ninh, Cao Bằng, and Bắc Kạn, thousands of ethnic minority households have traditionally grown star anise as part of their livelihood portfolios, although over 70 per cent of Vietnam's star anise is grown just within Lạng Sơn Province, by ethnic minority Nùng and Tày farmers. Despite the dependability of star anise trees, variations in global market prices for the dried fruit and oil have resulted in fairly drastic income fluctuations for cultivators, creating important concerns that are explored in Chapters 2 and 6, including the impacts of entanglements with the global pharmaceutical industry.

Previous academic literature regarding star anise in these uplands has focused on Bình Liêu District, Quảng Ninh Province, Vietnam, where Le et al. (2004) have found star anise to be an important potential income source and have documented the commodity chains associated with Bình Liêu star anise. More recently, Pick et al. (2015) and Marie-Vivien and Vagneron (2017) have analysed how geographical indicators have been implemented in Vietnam and their potential for socio-economic development, while paying particular attention to the case of star anise production in Lạng Sơn Province. Meanwhile, Hoang et al. (2015) have performed an analysis of specific agro-forestry systems, including star anise combined with tea cultivation, also in Lạng Sơn Province. They have noted the market uncertainty in relation to star anise, with large quantities exported to China and prices largely controlled and manipulated by Chinese traders. An analysis of production metrics and the prospects of non-timber forest products in Vietnam has also emphasised star anise production and detailed the quantities produced from 1995–1999 (Ha Chu, 2001). Turning to the Chinese context, star anise does not appear to have attracted the attention of

Figure 1.2. Star anise growing in Jinping Miao, Yao, and Dai Autonomous County, Yunnan Province, China. **Colour** p. 146.

authors writing for an international audience in English. However, authors have written in Chinese about the different concerns regarding star anise cultivation and trade in Yunnan (Han and Ning, 2006), and the pests that have caused havoc for this species (Su et al., 2019), a concern Langill and Zuo return to in Chapter 6.

Across the upland provinces of Quảng Ninh, Cao Bằng, and Lạng Sơn, the Vietnamese media has focused on the economic potential of star anise production, highlighting the role of agro-forestry – and particularly star anise – in diversifying livelihoods away from rice cultivation and 'lifting rural-dwellers out of poverty' (Dam Lieu, 2012: online; Lạng Sơn Online, 2019). These media sources have also emphasised star anise's potential

positive livelihood impacts for Yao ethnic minority farmers in particular (Cong Thanh, 2012).

'Cinnamon'

Cinnamon loosely refers to a range of species within the *Cinnamomum* genus of the Lauraceae family, cultivated across China, Southeast Asia, and Australia (Leela, 2008). As Turner, Derks, and Ngô probe in more detail in Chapter 4 of this collection, the taxonomy for the *Cinnamomum* genus is complex and confusion still abounds with regard to which specific species of *Cinnamomum* grow in Vietnam. The *Cinnamomum* genus comprises hundreds of species, but only a few have gained commercial value to date. These include *Cinnamomum verum* (Ceylon cinnamon), as well as *Cinnamomum cassia* (*C. cassia,* also known as Chinese *cassia*, 肉桂 in Mandarin), *Cinnamomum loureiroi* (Vietnamese *cassia*), and *Cinnamomum burmanni* (Indonesian *cassia*) (Ravindran and Nirmal Babu, 2004). *C. cassia* is distinguished by its thicker, harder bark, and stronger, spicier flavour, in contrast with Ceylon cinnamon which has a thinner, softer bark, and a milder, sweeter flavour (Woehrlin et al., 2010; Thomas and Kuruvilla, 2012). Although commonly referred to as cinnamon, it is most likely *C. cassia* that grows in the Sino-Vietnamese uplands (Figure 1.3.), but our analysis in Chapter 4 reveals the complexities around making such assumptions, especially in northern Vietnam.

The seedlings (that for now we will assume are *C. cassia*), are typically raised in nurseries before being transplanted to sloping hills where they are often interspersed with other plants, such as cassava, which provide the young trees with shade. *C. cassia* is an evergreen tree that grows to about 18–20 metres, with the bark reaching 13–15 millimetres in thickness when mature (Nguyen, 2003). When the trees are pruned or felled, their bark, leaves, and timber are sold to local trade intermediaries, as detailed in Chapter 4. Oil from *C. cassia* is well-known for having a high content of cinnamaldehyde, a prized ingredient in traditional Chinese medicine.

In both southeast Yunnan and northern Vietnam, *C. cassia* cultivation has risen in importance from the 1990s onwards as both China and Vietnam have increasingly promoted reforestation programmes. While farmers have since been struck with a number of policy dilemmas in southeast Yunnan, which Langill and Zuo outline in Chapter 6, Vietnam's cultivation has continued

to boom, as Derks, Turner, and Ngô observe in Chapter 4. In Vietnam, for Yao ethnic minority households especially, as well as some Hmong and a smaller number of lowland Kinh households, the cultivation of *C. cassia* has become an important component of livelihood diversification strategies. This has especially been the case in Yên Bái Province, where Chapter 4 is centred, as well as in Thanh Hóa and Quảng Nam Provinces. The number of farmers in Vietnam's northern uplands cultivating *C. cassia* has been rising steadily, with key export markets flourishing in China, India, Japan, South Korea, Taiwan, and the US. Within global trade networks, *C. cassia* has often continued to be mistaken for 'true cinnamon' due to its similar smell, flavour, and appearance, an ambiguity we revisit in Chapter 7, where Kee and Zuberec reveal the marketing makeovers these spices undergo as wholesalers and retailers attempt to succeed in the competitive global market.

Other authors studying *C. cassia* in the region have analysed harvesting practises, trade metrics, and the economic value of the crop in China and Vietnam (Nguyen, 2003). Yên Bái Province, Vietnam – the hub for *C. cassia* production that we investigate in Chapter 4 – has also been the focus of work by Nguyen An Thinh and his collaborators (Nguyen et al., 2020 and Nguyen et al., 2021).[3] This work has examined the rural livelihood diversification of Yao farmers involved in *C. cassia* cultivation in Mỏ Vàng District, a key *C. cassia* growing locale (Nguyen et al., 2020), as well as focusing on climate change-related disruptions to *C. cassia* crops (Nguyen et al., 2021). Elsewhere in Yên Bái Province, Nguyen and Sato (2008) have studied ethnic minority households' access to land allocated for *C. cassia* production forests, noting that richer households have derived more income from this livelihood option, while adding that forest quality has improved.

As with star anise, the Vietnamese media has repeatedly lauded the lucrative potential of *C. cassia* production across upland provinces including Hà Giang and Yên Bái (Cong Thanh, 2012; Tung Duy, 2013). However, Do (2019) has pointed out the barriers smallholder *C. cassia* farmers have faced in accessing formal credit and the impacts this has had on possible income from this crop. In the Chinese context, scholarly attention has focused more on the botanical characteristics of *C. cassia*. Liu et al. (2002) have worked on the identification of *C. cassia* from Yunnan in an effort to determine

3 Nguyen An Thinh, the first author of these pieces, is a long-time collaborator of Sarah Turner, one of the editors of this book. Nguyen draws on quantitative methods that complement the more ethnographic approaches in this collection.

Figure 1.3. Mature 'cinnamon' (likely *C. cassia*) plantations and saplings (in foreground) in Yên Bái Province, Vietnam. **Colour** p. 147.

the plant's microstructure, while Cheng and Xu (1989) have provided a more general overview of the growth cycles and cultivation strategies of *C. cassia* in the same province. More recently, Zhi et al. (2018) have discussed the classification and identification of sub-species of *Cinnamomum cassia* that grow in the tropical regions of Yunnan, studying the effects that forest maturity has had on plant diversity.

CONCEPTUAL FRAMINGS

The Sino-Vietnamese uplands as frontier

In this collection we refer to the Sino-Vietnamese uplands as a 'fragrant frontier' in order to account for the different geographical, ecological, and political arenas in which cardamom, 'cinnamon', and star anise are grown and traded, along with their socio-economic, cultural, and imaginative positionings. Many conceptual discussions of frontiers reference Frederick Jackson Turner (1894), who identified two divergent definitions of the 'frontier'. The older, European frontier vision saw a frontier as 'a fortified boundary line running through dense populations' (F. J. Turner, 1894: 200). In the context of the United States' Western expansion, however, the frontier was rather considered to be 'the meeting point between savagery and civilisation', in landscapes ripe for settlement by white settlers (ibid.). Owen Lattimore (1940) later modelled his 'Inner Asian Frontiers of China' on Turner's (1894) North American conceptualisation of the frontier, portraying China's frontier as a constantly shifting region, fluctuating as modernity swept over lands and people peripheral to the seat of the Han emperor. Lattimore (1940) also observed the difficulties in 'taming' the frontier, which required extensive financial investments and labour. This 'taming', as Giersch (2006) has noted, was neither a steady nor a unilineal process, as the frontier's movement both forward and backward could occur through history in response to economic and political cycles. Hence, rather than only considering frontiers as the 'enactment of commodification and conquest', we follow Tsing's call for scholarship that pays close attention to the 'series of historically nonlinear steps and skirmishes that pile together to create their own intensification and proliferation' (Tsing, 2003: 5102).

With these understandings of frontier dynamics in mind, we believe that the resource-rich Sino-Vietnamese uplands, with their important populations of ethnic minorities, could easily be argued to be a frontier. In his provocative book, *The Art of Not Being Governed: An Anarchist History of Upland Southeast Asia,* James C. Scott (2009: ix) has proposed that the Southeast Asian Massif, in which the Sino-Vietnamese frontier is centrally located, represents the 'Last Great Enclosure'. He has reasoned that 'hill peoples [living there] are best understood as runaway, fugitive, maroon communities who have, over the course of two millennia, been fleeing the oppressions of state-making projects in the valleys – slavery, conscription,

taxes, corvée labor, epidemics, and warfare. Most of the areas in which they reside may be aptly called shatter zones or zones of refuge' (ibid.: ix).

In Scott's view, these upland groups made conscious efforts throughout history, such as by maintaining swidden agriculture and oral traditions, to ensure that the 'friction of terrain' would separate them from lowland powers (Scott, 2009: xi). Scott has further argued that since the end of the Second World War these uplands have become increasingly enclosed by modern states through 'development, economic progress, literacy, and social integration' campaigns aimed at incorporating their populations (ibid.: ix). Communal property has been replaced by private land-use rights, while livelihoods have been transformed by cash cropping and efforts to settle previously itinerant farmers. Such programmes have not necessarily aimed to increase the productivity of uplanders, but rather to guarantee 'that their economic activity was legible, taxable, assessable, and confiscatable or, failing that, to replace it with forms of production that were' (ibid.: 5).

Indeed, governments across the Global South frequently promote economic modernisation and capitalist expansion, often in collaboration with private interests, as a way to increase control over frontier populations and spaces, which often – but not always – intersect with state borderlands (discussed below). In the process, frontier populations regularly face 'civilising' cultural reforms that aim to transform their livelihoods and social practices (Barney, 2009; Fold and Hirsch, 2009; Hirsch, 2009). State and non-state actors often spare no expense to 'improve' the nation's physical and metaphorical frontier and work in concert to leverage political, economic, and legal power to these ends (Scott, 2009).

These processes can be observed in the Sino-Vietnamese uplands as China and Vietnam rapidly transform their frontiers from 'battlefields to marketplaces'. In the second half of the 20th century, the Sino-Vietnamese uplands epitomised a 'military frontier' (Su, 2013: 1219), with regional and international actors vying to secure and control the area. The growing tensions between the two socialist neighbours culminated in a brief, but devastating, border war in 1979, severely impacting cross-border activities until the normalisation of relations and the official opening of the border again in 1991 (Womack, 2000). These days, both the Chinese and Vietnamese governments endorse market expansion with support from the Asian Development Bank as well as regional development schemes like the Greater Mekong Subregion and China's Belt and Road Initiative. National policies

in China such as the 12th Five Year Plan (People's Republic of China, 2011) call for 'scientific' (*kexue*) and 'civilised' (*wenming*) development, while more recent policies promote the building of a 'New Socialist Countryside' in frontier regions to further state visions of 'modernity' (Harwood, 2013: 10). Propaganda extolling this type of development appears on billboards across the borderlands of Yunnan Province. The Vietnamese state is similarly driven by goals to build a 'New Countryside' (*nông thôn mới*) to 'uplift' material and spiritual living standards (Decision No. 16 / QD-TTg, 2016), and to become a modernised industrial country (*đất nước công nghiệp hiện đại hóa*) by the year 2020 (Socialist Republic of Vietnam, 2016).

In both countries, territory and space are being rearticulated through projects based on these principles. Campaigns are in full swing to 'civilise' the 'cultural margins' through market capitalism and modernisation, frequently coupled together as 'development'. Infrastructure initiatives, including railways, highways, power lines, hydropower dams, mines, cash crop plantations, factories, tourism ventures, and housing projects, criss-cross the Sino-Vietnamese uplands. These initiatives continue to impose new models of village life and livelihoods, while state and state-friendly large-scale private interests exploit the region's resources. Both states thus legitimise and strongly encourage capitalist expansion into frontier zones and the enclosure of the resources therein. This expansion does not stop at the border, however, as illustrated by the 'Two Corridors One Economic Ring' initiative, which aims to boost cross-border economic cooperation within a circle spanning nearly 140,000 square kilometres and reaching over 39 million people within the Sino-Vietnamese uplands (CGTN, 2017).

Pinkaew (2012: 466) has called this type of discursive project 'frontier capitalism'. This refers to states using development objectives to justify enclosures that ignore and often hinder the livelihoods and resource use patterns of local populations (see also Barbier, 2012; Su, 2013; Eilenberg, 2014). It is important to note, however, that across the Sino-Vietnamese frontier, state efforts of territoriality, while 'civilising the margins', are often important economic visions as well (Duncan, 2004; Scott, 2009; Tapp, 2010). Frontier development thus intertwines political and economic goals in the Sino-Vietnamese uplands, with profound and diverse impacts on local ethnic minority residents (Gainsborough, 2009; Sturgeon et al., 2013; Yeh, 2013).

As state-endorsed programmes and policies actively drive borderland livelihood changes at breakneck speed and on an unprecedented scale,

ethnic minority populations must decide whether to embrace such changes, re-work them, or potentially resist them. Many ethnic minority communities have decided to accept and adopt the new opportunities afforded to them as state 'frontier capitalism' advances. However, there are also times and places in which state plans conflict with the core values of local ethnic minority cultures, resulting in upland ethnic minority residents carefully negotiating or resisting state actions and policies, and hence navigating when to pragmatically comply with or contest the encroachment of the state and global markets (Kerkvliet, 2009; Michaud, 2010; Turner et al., 2015). Part of our motivation in carrying out the research included in this collection is therefore to better understand how frontier farmers, cultivating three important spices, exercise agency in the face of agrarian change, resource extraction, and expansion of state control.

The Sino-Vietnamese borderlands

Frontier regions do not necessarily coincide with a country's borderlands (Hämäläinen and Truett, 2011). Yet, in the case of the Sino-Vietnamese uplands, these concepts overlap – being both part of a frontier region of the Southeast Asian Massif and intersected by an international borderline. This adds extra complexity and complications for local residents on the ground, as well as for conceptualisations of these multifaceted spaces. Unlike the moving frontier, modern borderlines in theory comprise permanent geographical lines that circumscribe discrete sovereign states, with each state wielding power (to some degree) over the entirety of its territory and inhabitants (ibid.). While a nation-state arises when borders circumscribe one dominant ethnic group, a multi-ethnic state encloses several smaller or less powerful ethnic groups alongside one principal group that dominates national identity and ideology. In this context, governments actively use modern borderlines to divide and enclose previously amorphous margins, taming frontier regions and rendering them into internal peripheries.

In China and Vietnam, the emergence of modern borderlines both confirmed the dominance of major groups – Han and Kinh – over their customary domains and relegated other ethnicities to the status of 'minorities'. While some groups became totally enclosed within one country, such as the Bai and the Naxi in Yunnan, ethnic minorities commonly found themselves separated from kin and neighbours by borderlines dividing them

between oft-antagonistic states. Examples of those split between Vietnam and China include the Hmong (placed within the official Miao classification in China), Yao (Dao in Vietnam), Tày and Nùng (both officially merged into the Zhuang in China), as well as the Yi (Lô in Vietnam) – all of whom grow one or more of the spices under investigation in this collection. As Michaud (2010: 209) has argued: 'Borders, by their very political nature, artificially break up the historical social and cultural fabric of trans-border subjects and reduce the validity of country-based findings to what applies to a splinter group, with the larger entity often disappearing beyond the nation's borders'. Ancient regional polities, such as the Tai domains of *Sip Song Phan Na* ('Twelve Thousand Rice Fields' in Dai, now the 'Xishuangbanna Dai Autonomous Prefecture' in Yunnan Province) and *Sip Song Chau Tai* (the 'Twelve Tai Counties' in Thái) in northwest Vietnam, were also dismantled with the ascendancy of contemporary states.

Scholars have offered several different ways to conceptualise how power relates to present-day state borders. Borders have been increasingly viewed as porous membranes, with an emphasis placed on how their articulation can facilitate international social and economic interactions (Herzog, 1992; Dicken, 2000; Evans et al., 2000; Appadurai, 2002). However, globalisation, market liberalisation, and growing cross-border trade have often been accompanied by a reassertion of state control over borderlines and related sites, such as customs and immigration check points – a reminder that borders remain physical symbols of sovereignty over territories and population movements (Ong, 1999; Walker, 1999; Andreas, 2000; Papademetriou and Waller Meyers, 2001). Indeed, China and Vietnam exercise heavy control over the cross-border flows of people and commodities, with these contemporary states rigorously delimiting their sovereign territories (Clement, 2004). Nonetheless, it should also be noted that upland residents continue to navigate life on the frontier with some degree of freedom, and that numerous commodities are still smuggled across the border despite contemporary border controls, often via secret paths (Turner, 2010; 2013; Yin, 2018) and/or through illegal practices of 'making law' (Endres, 2014).

These frontier zones and their cultural landscapes arise from residents' interactions with these arbitrary jurisdictional boundaries, combined with their everyday lived realities and transactions across the borderline (Morehouse et al., 2004). Local residents, including upland ethnic minorities, are skilled at negotiating shifting state policies and border priorities

as part of their everyday practices, in order to 'make do', often rendering it difficult for governments to fully control cross-border interactions (ibid.). The networks of local residents and institutions in the Sino-Vietnamese borderlands involve relationships both within and across ethnic groups and states, a reality that becomes clear in our analyses of the cross-border trade of spices here, given the large quantities of each spice travelling across the borderline from Vietnam to China.

Upland livelihoods

Spices play an important role in the livelihoods of thousands of ethnic minority farmers within the Sino-Vietnamese uplands. As will become clear throughout this collection, these farmers draw upon a broad range of multiscalar considerations in developing their livelihood strategies. Both their motives and their responses to challenges are varied. Some have become more dependent upon one particular livelihood activity, such as a number of the Yao farmers now cultivating 'cinnamon' as a cash crop in Yên Bái Province, Vietnam, which Derks, Turner, and Ngô examine more thoroughly in Chapter 4. Others branch out and draw upon multiple activities, as Chapters 2 and 3 show, where we meet farmers growing star anise and cardamom as part of composite livelihood approaches, in order to take into account the unpredictable demands and returns of spice production. Those who diversify their livelihoods may do so in a manner that has been called 'distress diversification' (Bouahom et al., 2004: 613), or they may willingly seek to exploit access to new opportunities.

It thus makes sense to look at how spices shape the diversification and marketisation of livelihoods of upland ethnic minority farmers in this frontier in finer focus. Most frameworks for studying livelihoods emphasise the degree to which individuals or households construct their livelihoods by drawing on a variety of assets or capitals (Bebbington, 1999; Carney et al., 1999; de Haan and Zoomers, 2005). Often, such livelihood assets/capitals are organised conceptually into a 'pentagon' made up of five capitals: financial, human, natural, physical, and social (DFID, 1999; Ellis, 2000a; 2000b). The quantity and composition of the assets/capitals that an individual or household can access dictate the livelihood strategies, or 'ways of making a living', available to them. Adding to the complexity of the framework, livelihood decisions are nested within broader environmental and

socio-economic contexts, and they are also influenced intersectionally by factors such as age, gender, ethnicity, socio-cultural traditions, and location (DFID, 1999).

Two key components of the livelihoods framework – 'transforming structures and processes' and 'vulnerability contexts' – help us to better understand the everyday realities and choices farmers growing the spices under consideration face and negotiate (DFID, 1999). Transforming structures, representing the private sector and government entities, and processes, such as formal or informal institutions (encompassing market opportunities, laws, property regimes, social relations, and ideologies), may impact how individuals or households navigate vulnerabilities. These structures and processes also moderate access to available capitals and possible livelihood strategies (Ribot and Peluso, 2003; Scoones, 2009).

The vulnerability context focuses on the degree to which an individual or a household can utilise or manoeuvre their livelihood capitals/assets to create positive livelihood outputs, such as food and livelihood security (DFID, 1999; USAID, 2011). Vulnerability contexts are typically categorised as shocks, trends, or seasonality (Ellis, 2000a), and we document a key shock for black cardamom cultivators in Chapters 3, 5, and 6, namely extreme weather events. Chambers and Conway (1991: i) have determined a livelihood to be 'sustainable' when it 'maintains or enhances the local and global assets on which livelihoods depend and has net beneficial effects on other livelihoods', including for future generations. Others have added that sustainable livelihoods are resilient to shocks and stressors and need not deplete the natural resource base (Scoones, 1998; DFID, 1999).

While used across numerous disciplines and locales across the Global South, the livelihoods framework has nonetheless been critiqued for its tendency to focus on economic aspects of livelihoods, with assets or capitals remaining the nucleus of the approach (Scoones, 2009; de Haan, 2012). However, despite what could be argued to have been the economic-centric nature of the original approach, more recent work has applied an enhanced emphasis on the entanglements and intricacies of connections between capitals within specific local cultural contexts, paying particular attention to non-material capitals such as social and human capitals (Forsyth and Michaud, 2011). This is the approach that we take in this collection.

Agrarian transitions

As introduced above, complex changes to rural livelihoods occur and new inequalities arise as access to land, labour, and financial capital is disrupted (Hart et al., 1989; Borras Jr. et al., 2007). This commonly unfolds in countries undergoing agrarian transitions, which both China and Vietnam have been experiencing for a number of decades. In such transitions, the agricultural sector interacts with the market economy on an increasingly integrated and larger scale, with a broad range of associated changes – such as a rise in cash crops, flex crops, boom crops, and boom and bust cycles – affecting not only those directly involved in 'modern' agriculture, but also rural populations at large, in complex ways (Bernstein and Byres, 2001; Wilson and Rigg, 2003). Such processes often accompany a country's increasing integration into the global market economy, as has been occurring in both countries of focus here.

Undeniably, contemporary agrarian transformations have resulted in rising numbers of what have been termed 'flex' crops being grown across the Southeast Asian Massif, including oil palm, sugarcane, maize, and, as we suggest, star anise. Such flex crops are defined as having 'multiple uses (food, feed, fuel, fibre, industrial material, etc.) that can be flexibly interchanged, while some consequent supply gaps can be filled by other flex crops. Flexibility arises from multiple relationships among various crops, components and uses' (Borras Jr. et al., 2016: 94). The agrarian transition has brought with it important changes to market pricing regimes for these commodities, new policy frameworks, and scientific advancements, which have allowed for the emergence of multiple uses for such crops (ibid.). Borras Jr. et al. (2016: 97) have added that the emergence of flex crops necessarily alters how

> we research the political economy of these crops and commodities: how and to what extent capital accumulation, social relations, and power and power relations are contested and transformed. We cannot rely solely on quantitative measurements of these products to examine political economic trends and meanings.

Our study of star anise as a flex crop takes up this call in Chapter 2.

Also closely associated with the agrarian transition, boom crops and boom–bust cycles entail a variety of interrelated and mutually reinforcing political, economic, spatial, and environmental dimensions. A crop boom occurs when 'large areas of land are rapidly converted to mono-cropped (or nearly mono-cropped) production of a new crop and the land use transfor-

mations involved have time horizons of more than a year, usually because the crop is a tree crop that will take time to begin producing' (Hall, 2011b: 508). Crop busts signal the end of a crop's boom, involving an abrupt turnaround caused by dramatic price drops, pest or disease outbreaks, or other events directly halting the boom (Hall, 2011a; 2011b). How these dynamics unfold for farmers in Yunnan's uplands is at the core of Chapter 6.

In both Yunnan and northern Vietnam, the agrarian changes sweeping across the countryside benefit some locals greatly, while others suffer from economic marginalisation compounded by the loss of land rights and decreased access to resources. The increasing predominance of wage labour accompanying the agrarian transition in Yunnan's borderlands, for example, has dispossessed many smaller landowners and workers of their previous coping mechanisms, though accelerated economic growth has enabled some locals to synthesise new, more flexible livelihood strategies. Neighbours in the same village, or in neighbouring districts, may even have divergent experiences of this transition because of how individualised socio-economic outcomes have become. One example of this is in Yên Bái Province, Vietnam, where we find that some 'cinnamon' cultivators have been integrated into a state-introduced geographical indication programme while others have not, based on what district they live in – despite similar agro-ecological conditions. This is detailed in Chapter 4.

Commodity chain analyses

The agrarian transition currently underway across the Sino-Vietnamese frontier is closely related to the increasing integration of crops within commodity chains that range from those within regional networks to those operating at the global scale. Broadly, commodity chain analyses focus on how a commodity moves from production to consumption sites, illuminating the networks of production processes and labour that link economic actors along the way. A range of different frameworks for analysing commodity chains help to reveal the uneven power relations and distribution of profits along the chains, such as global commodity chain analysis (Gereffi, 1994), global value chains (Gereffi et al., 2005), commodity networks (Raynolds, 2002), and commodity circuits (Goodman, 2002).

While these approaches to analysing commodity chains have added greatly to our understanding, they have taken a predominantly economic

perspective. Some scholars have thus criticised them for excluding factors relating to culture and social relations, and the influence of these relations on commodity chain-based power dynamics within production and consumption analyses (Goodman, 2002; Craviotti, 2016). Bearing such critiques in mind, in this collection we draw upon a 'systems of provision' approach, which seeks to overcome these weaknesses. It does so by focusing on how actors assign meaning to goods at each stage along the commodity chains, while emphasising interactions between production and consumption (Fine and Leopold, 1993). As such, a systems of provision approach steers attention to on-the-ground connections among actors, the operation of chains at a range of scales, as well as the 'fragmentary and contradictory nature of the knowledges through which commodity systems are imagined' (Leslie and Reimer, 1999: 406). All the chapters in this collection draw on this approach.

It is with these broad conceptual debates and literatures in mind that we turn, in the chapters that follow, to investigate the patterns, processes, and logics of the contemporary spice trade that starts in the Sino-Vietnamese uplands with ethnic minority spice cultivators, a trade that then unfolds via complex commodity chains and a diverse range of intermediaries around the globe. The three spices on which we focus flavour food and drink delicacies, complete medicinal formulae, and add delicate ingredients to cosmetics and other consumer goods. Yet we still know remarkably little about the experiences of upland frontier farmers cultivating these spices. To date, insufficient research has explored how agrarian transitions and climatic changes impact numerous aspects of these farmers' livelihoods and decision-making processes in the frontier and borderland spaces in which these livelihoods are formed. In turn, the different actors involved in the commodity chains that move and transform these spices from upland farms to global markets need to be better understood, while analysing the intersectional power relations imbued in such chains. Finally, the value-creation methods that different individuals and companies along these commodity chains employ to trade and market these spices serve to create opportunities and constraints about which we need to learn more. Only when these diverse processes and relationships are carefully investigated can we dissect the power relations at play and how those in less powerful positions could potentially be supported to fully engage with and benefit from this fragrant frontier.

THE CHAPTERS TO COME

Each of the following chapters draws on the broad conceptual debates we have briefly outlined in this chapter, while each also highlights more specifically relevant conceptual literatures and critiques. We begin with chapters that focus on the individual spices and the dynamic livelihoods of their cultivators in northern Vietnam, before crossing the border to Southwest China to investigate both individual spice case studies and comparative changes to farmer livelihoods across the three spices. We then turn to the global marketing of these commodities.

In Chapter 2, 'Vietnam's star anise commodity chains entangled in flex-crop debates', Sarah Turner and Annuska Derks note how little is known about who cultivates this spice in the Sino-Vietnamese borderlands and how it reaches consumers around the world. This is despite star anise having multiple usages and hence its potential to be considered a 'flex crop' due to its role as a key component in the pharmaceutical production of the anti-influenza drug Tamiflu. To investigate the roles of actors along star anise commodity chains originating in rural, upland northern Vietnam, Turner and Derks thus put commodity chain concepts into conversation with recent 'flex crops' debates. Their qualitative fieldwork reveals the intricate and idiosyncratic nature of the commodity chains upon which ethnic minority cultivator livelihoods depend. As these chains connect uplands and lowlands through manifold linkages, cultivators, intermediaries, wholesalers, exporters, and marketplace traders constantly renegotiate their positions along the chains to maintain viable livelihoods. For many involved, financial gains fluctuate wildly over time, with uncertain financial returns and shifting demands. Turner and Derks find that the segmented knowledge individuals have of these commodity chains keeps many in a vulnerable position, while they question the effectiveness of the Vietnamese state's current approach to promoting this commodity as a way to improve local livelihoods. This state approach comes under further scrutiny in Chapter 7, when compared to the marketing approaches of global retailers.

In Chapter 3, 'Cardamom cultivator concerns and state missteps in Vietnam's northern uplands', Patrick Slack digs further into the ways that the Vietnamese state attempts to integrate upland ethnic minority farmers into the market economy through rural development initiatives, including mono-cropping, cash cropping, and agricultural intensification. Focusing

on a Vietnamese upland district directly on the borderline with Yunnan, Slack finds that these upland interventions have been intersecting with increasing extreme weather events since 2008. This potent combination impacts livelihood strategies in complex ways, resulting in notable declines in black cardamom yields. Minority cardamom cultivators subsequently test, engage with, or ignore state-endorsed alternatives and other opportunities as they see fit, based on their own understandings and experiences of the local agro-ecological context. Despite persistent and intensified state interventions to coax upland farmers to cultivate monocultured cash crops, livelihood portfolios remain diverse in this borderland district. Instead, farmers engage with new opportunities prudently, contradicting state ideals of 'modern' mono-cropping farmers.

In Chapter 4, 'The taste of cinnamon: Making a specialty product in northern Vietnam', Annuska Derks, Sarah Turner, and Ngô Thúy Hạnh take readers to another locale in upland northern Vietnam, namely Yên Bái Province, where ethnic minority farmers are cultivating what some global retailers refer to as the 'champagne of cinnamon'. A closer examination reveals, however, that this spice is not so-called 'true cinnamon' but most likely *C. cassia*, although the exact species remains uncertain. Derks, Turner, and Ngô investigate the making of 'Vietnamese cinnamon' as it moves from the hills of northern Vietnam to supermarket shelves in the Global North. They detail how different actors define 'Vietnamese cinnamon' and infuse it with oft-contradictory values. While the state and participating non-governmental organisations tend to ignore ongoing taxonomic confusion and have created a geographical indication to highlight the uniqueness of this commodity, exporters and retailers in the Global North focus on other distinctions as key marketing tools, such as remoteness, ethnicity, taste, and health benefits. Farmers, however, continue to sell an indistinct product on the global market, raising questions regarding how value is created along these commodity chains, and who benefits.

Crossing the Sino-Vietnamese borderline, in Chapter 5, 'Extreme weather events, cardamom livelihoods, and commodity chain dynamics in Southwest China', Jean-François Rousseau and Xu Yiqiang examine the fallout from a series of extreme weather events that decimated black cardamom plantations in Yunnan's southeast prefectures in early 2016, where this crop is central to many ethnic minority livelihoods. The authors investigate how different actors have experienced the impacts of harvest failure and the price

spike it drove along the cardamom commodity chains starting here, or from cardamom arriving from northern Vietnam. They tease out conceptual ideas to underpin their analyses from scholarship spanning vulnerability and livelihood studies to commodity chains literature. Building on ethnographic fieldwork in Southwest China, Rousseau and Xu highlight how power relations and trust manifest in specific ways at different nodes along the cardamom commodity chains. They also reveal the complex circumstances that explain why some actors along these chains have benefited in important ways from the 2016 extreme weather events, while others have not.

In Chapter 6, 'False promises: Cardamom, cinnamon, and star anise boom–bust cycles in Yunnan, China', Jennifer Langill and Zuo Zhenting explore the market processes and state campaigns that have driven the expansion of spice crop plantations in Yunnan Province, including cardamom, 'cinnamon', and star anise 'booms'. They find that the surges they probe end as rapidly and abruptly as they begin, while also examining the diverse factors involved in these 'crop busts', including market failure, extreme weather events, and the use of inappropriate state-sponsored agrarian techniques. Together, these elements create important challenges for farmers, who adopt a range of specific livelihood diversification strategies to cope and adapt. Drawing on 'boom–bust' and livelihood vulnerability and diversification scholarship to approach these dramatic market cycles and the responses of cultivators to them, Langill and Zuo support their analysis with semi-structured interviews conducted with ethnic minority cultivators and local state officials in Yunnan's borderlands. By categorising the range of vulnerability factors that farmers face, together with how these factors interconnect, Chapter 6 carefully identifies the links between specific vulnerabilities and the livelihood strategies that farmers deploy in response to their spice bust experiences.

In Chapter 7, 'Marketing makeovers and mismatches of Vietnam's quintessential spices', Michelle Kee and Celia Zuberec track how key actors commodify star anise, black cardamom, and 'cinnamon' in order to target specific consumer priorities and preferences. Starting their journeys in the Sino-Vietnamese borderlands, these three spices are commodified and marketed in ways that at times draw on distorted imaginaries of cultures, places, and histories to entice consumers in the Global North. Focusing on Vietnam's mountainous borderlands as a starting point, Kee and Zuberec analyse this commodification. They reveal just how divergent the realities experienced by ethnic minority farmer households are from the retailer-pro-

duced conceptualisations and marketing narratives and images of these cultivators, their homelands, and the spices they grow. These retailers span organic, fair-trade, and other spice merchants in Vietnam, neighbouring China, as well as Europe and North America. Kee and Zuberec demonstrate how attempts by government officials in Vietnam to create geographical indications and regional product specialities are largely ignored or dismissed by both Vietnamese exporters and global wholesalers and retailers, raising questions as to how governments and NGOs in the Global South can best support local cultivators.

To conclude, in Chapter 8, 'Reflections on fragrant frontier entanglements', Sango Mahanty briefly contemplates and highlights some of the key conceptual and empirical themes emerging from the collection. An Afterword by Sarah Turner then rounds off the volume, with a brief commentary on the initial impacts of the COVID-19 pandemic.

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CHAPTER 2

Vietnam's star anise commodity chains entangled in flex-crop debates

Sarah Turner and Annuska Derks

INTRODUCTION

With its unique star-shaped structure, star anise is often described as one of the most beautiful spices in the world. As noted in Chapter 1, the spice is the seed pod of the evergreen *Illicium verum* tree, which is native to northeast Vietnam and southeast China (Chempakam and Balaji, 2008; George, 2012). The Latin botanical name literally means 'true enticement', which not only refers to the shape but also to the flavour and fragrance of the spice. Star anise aromatises perfumes, gives home decorations an exotic touch, and is a crucial component of a range of cuisines. It is one of the key spices in Chinese five-spice powder, provides flavour to the broth of Vietnamese *phở*, a number of Indian curries, a variety of teas and mulled wine, and gives liqueurs such as sambuca and pastis their characteristic liquorice taste. Star anise also has a long history of use in traditional Vietnamese and Chinese medicine to treat stomach aches and rheumatic pain and is hailed for its antioxidant, antifungal, analgesic, and sedative properties. More recently, it has become a key component in the industrial production of the anti-influenza pharmaceutical Tamiflu (Wang et al., 2011).

Given its varied and expanding multifarious uses, star anise can be argued to qualify as a 'flex crop' (Borras Jr. et al., 2016). However, unlike typical flex crops like corn and palm oil, star anise is a relatively marginal global commodity (Parsfield, 2019). Little is known about the spice, where it comes from, who cultivates it, and how it reaches global markets. This chapter thus traces the networks that bring star anise from rural cultivators in the upland northern frontier of Vietnam to consumers, examining the socio-economic, cultural, and political connections between nodes along the way. We aim to understand the relationships through which star anise is

passed from fields to final consumers, the particular significance of this spice for local livelihoods, and the ways in which these livelihoods are influenced by the numerous roles star anise plays in domestic and global markets. We demonstrate the ways in which production processes, distribution channels, and consumption habits are constantly being renegotiated and reworked along these commodity chains, shedding particular light on what this trade means for ethnic minority cultivators who may experience livelihood success or failure at the whims of far-off actors. Despite star anise's initial promise as a lucrative flex crop, especially for pharmaceutical use, its rapid economic collapse stands as a cautionary tale against involvement in future speculative schemes. We find that rural populations are still vulnerable to the boom and bust cycles of unpredictable markets for the spice, an argument Langill and Zuo pick up again in Chapter 6 of this collection on the Chinese side of the Sino-Vietnamese borderline.

This chapter builds on insights from a growing body of literature that explores the everyday experiences of actors within food provisioning chains in the Global South, demonstrating how individual farmers deal with fluctuating opportunities and constraints that determine their ability to supply retailers and consumers while maintaining viable livelihoods (Bestor, 2001; Freidberg, 2004; Cadilhon et al., 2006; Ziegler, 2007; West, 2012; Fabinyi, 2013). We add to this literature by focusing on the relations between the different actors involved in growing, processing, and trading star anise, the role of 'flex narratives' in Vietnamese state efforts to promote star anise from Lạng Sơn Province, and the viability of this cash crop for upland ethnic minority farmers. Due to unstable harvests, uncertain financial returns, shifting demand, and segmented knowledge along the commodity chains, cultivators, intermediaries, wholesalers, exporters, and marketplace traders constantly renegotiate their positions to maintain viable livelihoods.

We draw on multi-sited ethnographic fieldwork conducted in person between January 2014 and July 2016, with follow-up phone interviews in 2021, during which we interviewed 126 people in total. In Lạng Sơn Province, Vietnam's top star anise producing region, we interviewed 30 individuals with experience as cultivators, wholesalers, or export company representatives and workers. Following a semi-structured approach, we also completed interviews with two local officials from the Department of Agriculture and Rural Development (DARD), one from the Women's Union, and a local forestry expert. In Hanoi, we interviewed 30 neighbourhood and wholesale

market stall operators, five people involved in the local transportation of star anise, and 35 consumers. We then surveyed 45 online retailers advertising Vietnam-sourced star anise, 15 each in China, the US, and the European Union (completed separately and in addition to those sampled for Chapter 7 of this collection). We also interviewed trading representatives from eight of these retailers by email or phone. We conducted 20 more conversational interviews with star anise retailers in other parts of Asia (Beijing, Chiang Mai, Kathmandu, Phnom Penh), as well as farther afield (Montréal, New York, Zurich, Paris).

STAR ANISE COMMODITY CHAINS AND FLEX CROPS CONCEPTUALISED

A systems of provision approach, as noted in Chapter 1, helps us to focus on the everyday connections and interactions between actors involved in specific commodity chains, while allowing us to better understand how the chains operate at a range of scales (Leslie and Reimer, 1999). More specifically, a systems of provision approach conceptualises commodity flows as having both vertical and horizontal dimensions. As also drawn upon in Chapter 7, the horizontal dimension highlights elements that exist at similar nodes across commodity chains; these include gender, class, and ethnicity, all factors which may influence production and consumption processes. A horizontal analysis can also compare the policies, procedures, and regulations that influence the creation, movement, and trade dynamics of a given product (Glennie and Thrift, 1993). In comparison, a vertical analysis examines the negotiations taking place at each successive node of a specific commodity chain as goods make their way from producer to consumer (Bush, 2004). This distinction between horizontal and vertical dimensions is useful, but the vertical dimension has been highlighted more thoroughly, whereas less attention has been given to aspects of labour and intrahousehold negotiations (Leslie and Reimer, 1999). Collins (2005) has also pointed out that a common – and problematic – use of commodity chain research is the reification of corporate actors. It is therefore important to focus upon and engage with multiple actors at different nodes along commodity chains, in order to gain better insights into livelihood negotiations and the gender, class, and ethnic factors that affect them.

In the case of star anise, it is not merely the multiple actors along the chains, but also the multiple uses of the spice itself that shape livelihoods and social relations at the start of the chain. In this regard, star anise fits the profile of a 'flex crop', as defined in Chapter 1. Although star anise cannot function as a fuel, which is a typical flex crop hallmark, the multiple uses of the spice include its roles in traditional medicines, foods, beverages, and cosmetics. These multiple functions have a material basis and have evolved over decades or even centuries, hence counting as what Borras Jr. et al. (2016) have referred to as 'real flexing'. In addition, star anise became – for a while at least – the object of 'speculative flexing' (ibid.). The biomedical advances that gave the spice a key role in the production of Tamiflu led to 'significant anticipation of or speculation about' the profitability of this new use of star anise (Borras Jr. et al., 2016: 106). These multiple and flexible uses of star anise have, in turn, fuelled flex narratives proposed by state agencies and private companies interested in developing policies for and capitalising on this flex crop. Star anise therefore serves as a relevant entry point to extend 'questions about material bases, real-life changes, flex narratives and political mobilization' to spice commodity chains (Borras Jr. et al., 2016: 93).

CONTEXTUALISING VIETNAM'S STAR ANISE TRADE

Star anise cultivation is central to the livelihoods of thousands of ethnic minority households in Lạng Sơn Province, in Vietnam's northern frontier. It is also grown by households in Quảng Ninh, Cao Bằng, and Bắc Kạn Provinces, but an estimated 71 per cent of the star anise trees in Vietnam are in Lạng Sơn Province (Map 2.1.). The province has a total population of 781,655 individuals (as of the 2019 census), almost 80 per cent of whom are classified as rural. The ethnic makeup of the province includes Nùng (43 per cent), Tày (36 per cent), and Kinh (16 per cent) households (General Statistics Office, 2020). The chief crop grown in the province is paddy rice (50,000 planted hectares in 2016), followed by star anise (29,400 hectares) and maize (22,100 hectares). Other agricultural products grown or bred for trade include fruit, pine trees, acacia, eucalyptus, cattle, pigs, and tobacco (Lạng Sơn People's Committee, n.d.: online). Two districts are home to the bulk of Lạng Sơn Province's star anise cultivation. Situated 40 kilometres west of Lạng Sơn City at an average elevation of 400 metres, Văn Quan District has the most hectares under star anise cultivation, followed by Lộc

Bình District, located just 27 kilometres southeast of Lạng Sơn City (see Map 2.1.; Hoàng, 2013; Interviews, 2016).

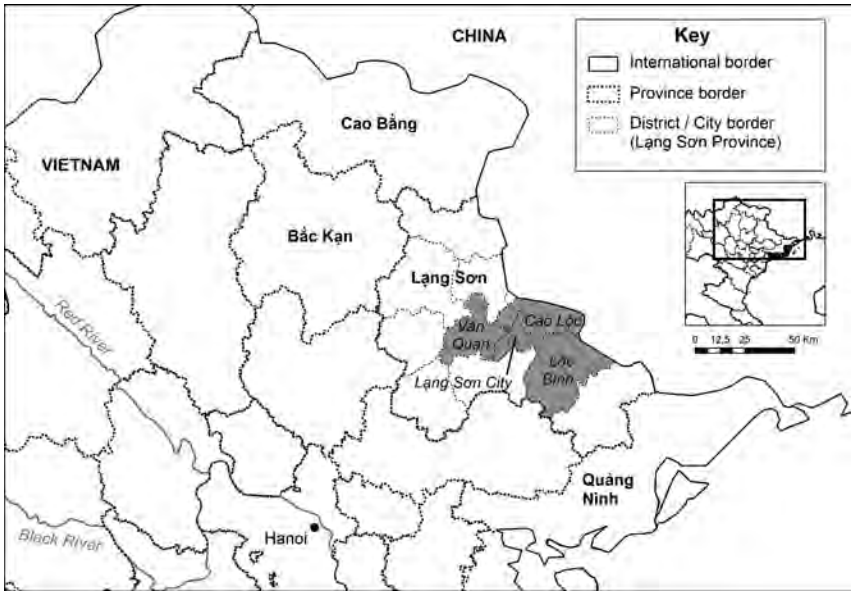
Academic sources have noted that star anise is native to southern China and northern Vietnam (Chempakam and Balaji, 2008; Kew Royal Botanic Gardens, n.d.). More specifically, some elderly residents whom we interviewed asserted that their growing traditions date back to when their ancestors migrated from China, bringing seedlings with them.[1] Other residents suggested that the French introduced the spice during colonial rule, but this is unlikely since the botanist Philippe Eberhardt (1906) found 50–60 year old plantations in the region in the early 20th century. Nonetheless, the production and export of star anise, particularly its oil, did grow dramatically under French colonial rule. Star anise oil was transported via Hanoi and Hải Phòng to Marseille, where it was infused in pastries, liqueurs, and perfumes (Deite and Brannt, 1892; Chevalier, 1943). One elderly farmer noted:

> When I was born [1930], there were many star anise trees here already. The French built an oil factory in Lạng Sơn... Vietnamese did not know how to make oil before that. Thanks to the French, they came and made oil in Đông Kinh Commune [now part of Lạng Sơn City]. There was a big factory, the waste was loaded very high – several metres, there was a large yard for waste from oil distillation.

Another elderly interviewee recalled how, soon after Independence in 1954, President Ho Chi Minh ordered that all star anise plantations be converted to tobacco cooperatives (see Henin, 2002). The wood from destroyed pine and star anise trees was then burned for drying tobacco. This 86-year-old informant looked back with regret on the destruction of star anise forests that she had witnessed in Cao Lộc District, just east of Lạng Sơn City, saying: 'We didn't know how to protect the forest'. During the subsidy era of 1975–1986, remaining star anise trees then came under the control of state agricultural collectives.

With land redistribution in 1993, the trees were reallocated to village households (George, 2012). This new land tenure system, along with a growing market economy, encouraged farmers to expand tree planting. As

1 According to Kew Royal Botanical Gardens (n.d.), '*Illicium verum* is thought most likely to be native to southern China and northeast Vietnam. It has been cultivated since about 2,000 BC, and it is difficult to determine whether plants growing in these areas are wild or naturalised. Star anise is cultivated in China, Laos, Vietnam, Korea, Japan, Taiwan, Hainan and the Philippines'.



Map 2.1. Lạng Sơn Province, northern Vietnam, with key star anise growing districts.

a farmer interviewed by Henin (2002: 13) explained: 'Growing trees is the only good investment one can make in the region'. The cultivation of star anise boomed in the following decades as a growing international market for the spice coincided with rising demand for shikimic acid, a core component of the anti-influenza drug Tamiflu, which was derived from star anise (National Public Radio, 2009; Kew Royal Botanic Gardens, n.d.). Vietnam's annual output rose from 2,000 tonnes in 1993 to 5,500–6,000 tonnes in 2013, with exports valued at around VND600–650 billion (USD28.5–31million at 2013 exchange rates) (de Beer, 1993; Hoàng, 2013).[2]

TRACING STAR ANISE COMMODITY CHAINS

Commencing in farmers' courtyards

Star anise trees thrive in environments with high humidity and a deep soil layer, and are well suited to the climate of northeast upland Vietnam, as briefly introduced in Chapter 1. Saplings are propagated by burying ripe star

2 The USD conversion rates for all prices mentioned in this chapter correspond to the year specified in the related statement.

anise fruit in sand for 3–4 months; the resulting seedlings are then carefully tended in pots until they are about 50 cm tall. The planted saplings must then be protected from hungry livestock, and sometimes theft. Once the trees are well rooted, no fertiliser is needed. Though generally low-maintenance trees, some informants noted that the annual weeding at the end of winter is a laborious task. It should be noted that the fact that trees begin to bear fruit only 10–12 years after planting makes it difficult for farmers to react quickly to any price fluctuations. In ideal conditions, farmer interviewees noted that the trees can live for more than two centuries, and can grow at a density of about 400–500 trees per hectare (see also de Beer, 1993; Le et al., 2004). Though some Nùng and Tày farmers specialise in growing star anise at larger scales (3–6 hectares), most cultivate smaller plots (1–2.5 hectares) as part of a composite livelihood approach. This approach focuses on growing rice or maize as a staple for household consumption and trade, supplemented by home gardens, livestock such as pigs, cattle, or goats, and sometimes other cash crops like fruit or pine trees.

Two specific periods govern star anise collection, with the spring harvest (*vụ xuân*) occurring around February–April (March–May of the lunar calendar, which farmers follow) and the fall harvest (*vụ thu*) around August–October (September–November of the lunar calendar). Interviewees explained that the fall harvest accounts for up to 80 per cent of production (see also George, 2012). Fruit are harvested just before ripening, when they contain the highest essential oil content (Chempakam and Balaji, 2008). According to one elderly cultivator, during the main *vụ thu* harvest a tree with a diameter of 25 centimetres produces about 14–15 kilogrammes of dried star anise fruit. In addition, different harvests produce different fruit quality. One wholesaler explained: 'For the fall crop [main harvest] the fruit is smaller and more dense and 3.8–4 kilogrammes of fresh star anise can be dried to yield one kilogramme of dried star anise, while during the second crop [spring] 4–4.2 kilogrammes of fresh star anise is needed to be converted to one kilogramme of dried star anise'.

It is predominantly men who harvest star anise, climbing the trees and tossing the fruit onto plastic sheets below. An experienced worker can pick up to 50–70 kilogrammes a day. Workers with whom we talked confirmed that this is dangerous work, as trees are often located on steep hillsides or close to cliffs. Some pickers tie themselves to trees using ropes, while others sit on a plank across two branches while they pick (see also Hoàng,

2013). Workers then gather the star anise into sacks, which are transported on their shoulders or by hand-pulled cart. Two methods can be used for drying the fresh star anise: over a wood fire or via sun drying. Although the latter method takes more than four days, this process creates a product that is considered superior. Fire drying involves spreading the fruit on thin strips of metal (historically bamboo) over a small brick wood-fired oven. A cool fire produces the best drying conditions, as star anise is already considered inherently 'hot' in the elemental guidelines of traditional Chinese medicine. Nonetheless, some farmers noted that when they are too busy with other tasks, have a very small harvest, or need cash quickly, they might sell fresh star anise to local wholesalers rather than drying it.

Traditionally, star anise was harvested through labour rotation among farmers' kin; interviewees noted, however, that these interactions have become more cash-based recently, with larger star anise operations hiring labourers to help (see also Henin, 2002). The vast majority of star anise farmers in Lạng Sơn Province – and all those we interviewed – are Tày or Nùng, who inherited their parents' or grandparents' operations, with very few Kinh farmers of this spice. Tày and Nùng farmers explained that they have access to the most suitable land, and that Kinh individuals are not particularly interested in the dangerous and labourious fruit-picking process. Ethnic minority workers are hired from nearby villages and are commonly paid 30 per cent of the farmgate price of the amount they pick by weight. For example, a haul of 50–70 kilogrammes of picked star anise in one day would provide a VND150,000–210,000 [USD6–9] daily wage at 2016 farmgate prices.

As the spice starts to move along the commodity chains (Figure 2.1.), small-scale farmers typically use motorbikes or carts to transport their harvest to wholesalers or local markets, while wholesalers often travel to larger-scale farmers around the harvest period too. One wholesaler stated that she buys star anise that is already sorted by farmers into broken and unbroken fruit (with broken ones processed into essential oils or incense), while other wholesalers and exporters complete this sorting themselves. The farmgate price for the main fall 2015 harvest of dried star anise was VND60,000 per kilogramme [USD2.60 at 2015 exchange rates]. Nonetheless, only four years later the price fell to VND32,000 per kilogramme [USD1.37] and only slightly rebounded to 38,000 per kilogramme [USD1.64] in 2020, as reported by informants over the phone in 2021. Though the high season for star anise sales corresponds with the harvest, farmers sometimes negotiate

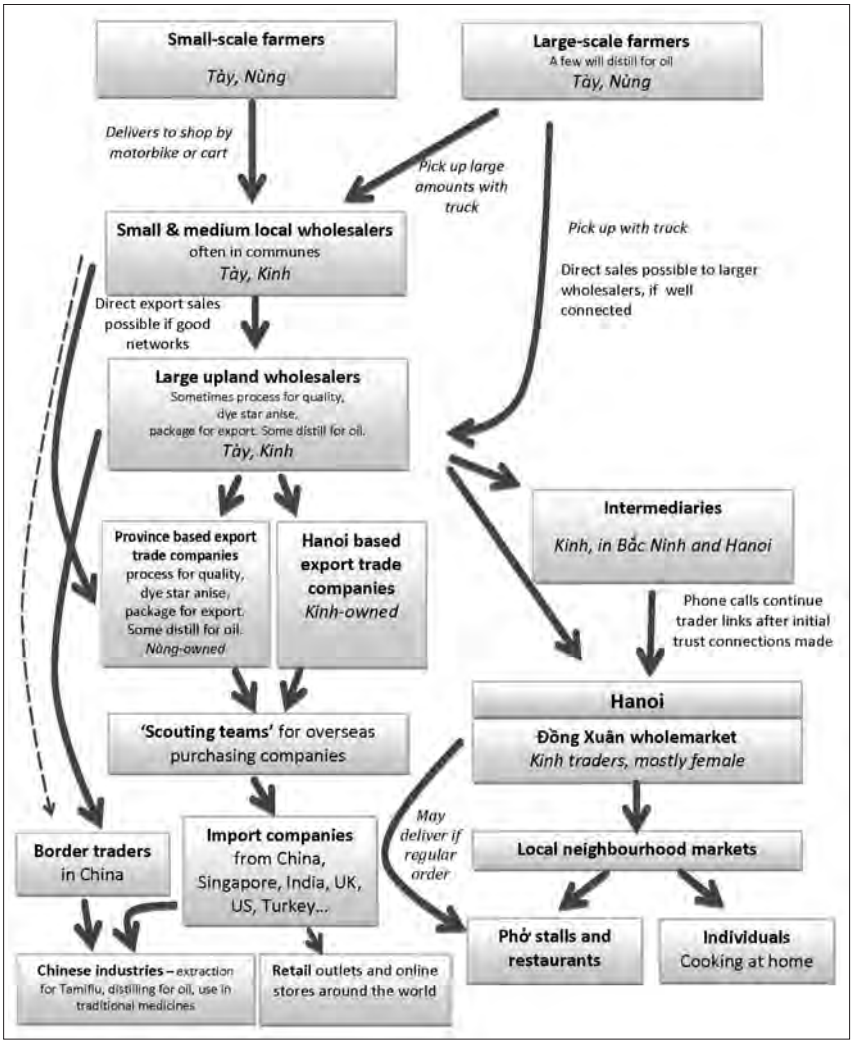


Figure 2.1. Commodity chain diagram for star anise originating in Lạng Sơn Province, Vietnam. (Source: S. Turner and A. Derks)

prices in advance if they require emergency cash. In such a scenario, a 65-year-old farmer remarked: 'We gamble with the price for star anise'.

Intermediaries moving star anise along the commodity chains

A variety of wholesale operations serve as intermediaries between upland producers and export companies. Small- and medium-scale local wholesalers tend to be Tày or first- or second-generation Kinh migrants to Lạng Sơn

Figure 2.2. Star anise drying in a large-scale wholesaler's courtyard, Lạng Sơn Province, Vietnam. **Colour** p. 148.

Province, who maintain strong social links with nearby farmers (cf. To et al., 2016). One small-scale wholesaler with a decade of experience asserted:

> The most important factor is credibility, so villagers want to sell their products to us… It's not necessary to give gifts to the villagers, they have sold to us for a long time and they know us, so they only sell to us. But we must be honest and tell them the right price. If it's high, we must tell them correctly so they trust us... They won't sell to us any more if we cheat or lie to them.

Some larger upland wholesalers, commonly based in Lạng Sơn City or a district head town, obtain star anise without an initial payment and then settle their accounts when the spice is sold to even larger-scale wholesalers or private export companies (Figure 2.2.).[3] These larger intermediaries must also invest time in securing trust with farmers. One such wholesaler relayed: 'We have a long relationship. A long time ago, my parents used to go to their village and ate meals and drank alcohol with them'.

3 We did not encounter any state-owned export companies involved in star anise trading in Lạng Sơn Province, but Le et al. (2004) have mentioned one in neighbouring Quảng Ninh Province.

Larger enterprises can invest in more complex mechanised processing operations for packaging star anise for export. 'Rotating grater' machines remove the stems from the dried fruit, with workers then sieving the fruit to sort for size and, by extension, quality. Workers then chemically dye the spice from a yellow tinge to bright red – depending on specific purchasers' requirements – and package the finished product in bags or boxes. Large-scale wholesalers often own the machinery required for distilling oil as well.

While information about profits at this node of the commodity chain remains elusive, one large-scale wholesaler moving 600–1,000 tonnes per year, located near the Chinese border, disclosed that she charged a mark-up of VND5,000 per kilogramme [USD0.22] on dried star anise. Profits can soar for those who distil star anise oil, with one informant selling oil for VND280,000–300,000 [USD12–13] per litre in 2015.

International itineraries

Occasionally, large-scale wholesalers in Lạng Sơn Province trade directly with buyers at the border with China.[4] Compared to star anise grown in China, the spice grown in Vietnam is considered of superior quality – according to Vietnam-based interviewees – due to its higher oil content. Therefore, one common 'trick of the trade' mentioned by one interviewee is for Vietnam-based wholesalers to buy Chinese star anise at the border, mix it with their own Vietnamese stock, and then sell it back across the border for a higher price as 'Vietnamese star anise'.

Usually, though, larger wholesalers maintain contracts with export companies, which tend to be based in Hanoi and trade a range of spices and commodities. Very few export trade companies are based in Lạng Sơn Province itself (this is similar to what we find for 'cinnamon' from Yên Bái Province, in Chapter 4). However, we completed interviews at one large star anise export company established in Lạng Sơn Province that employs workers who sort the star anise for quality, and then dye and package it in a rural processing factory, with its accounting, marketing, and advertising units based in Lạng Sơn City. The company's director, a Nùng woman, revealed that they have a showroom and a small stall at a night market in Hanoi to 'introduce our products to domestic customers, as well as exporting it'.

4 These wholesalers are not registered as export trade companies and lack the numerous promotional materials, commodity range, and extensive overseas networks of export companies.

This export company, like several large-scale farmers and wholesalers, also distils star anise oil, selling the lucrative liquid in bottles and packaged in gift boxes of room fresheners. While the oil can be extracted via traditional steam distilling methods or via a process involving liquid CO_2, all of the farmers, large wholesalers, and exporters we interviewed used steam distilling. This steam distilling process takes about three days to complete and involves placing up to 30 kilogrammes of fresh star anise, typically broken pieces, in a stainless steel retort. The fruit is mixed with water and heated by a wood- or coal-fuelled fire. Along with steam, the oil vapour rises and condenses in an outlet tube, from which it is collected.

At the export processing factory we visited, all the workers were local Tày or Nùng men and women. As this factory work was only available following harvest times, they engaged in this irregular wage labour to supplement their usual farming livelihoods, earning VND200,000 [USD9] per day. This employment represented one of the few options for local labourers who were wary of crossing the border to seek work in China. As one worker explained: 'Working in China we get higher pay but it's more risky, people go there to grow sugar cane, work in plastic manufacturing… It's dangerous'. This narrative presents an interesting point of comparison to former cardamom cultivators in Lào Cai Province who now travel to China for work (see Chapter 3).

Companies based in Thailand, Bangladesh, and India regularly send 'overseas scouting teams' to Vietnam to negotiate star anise purchases.[5] Details discussed at this stage include preferred dye colours and packaging as well as quantity and quality. The export company in Lạng Sơn City boasted 20–30 international customers and over 1,000 metric tonnes of yearly trade. According to this and other large-scale wholesalers and exporters based in Hanoi, most Vietnamese star anise is sold to China, with far lesser quantities going to Singapore, India, Thailand, Bangladesh, Turkey, the US, and the UK. Farmers we interviewed only reported China as the destination for their star anise, a difference in market knowledge we return to later. Overall, though, it is clear that China is the leading supplier of star anise to the world, and most Vietnam-sourced star anise is blended in China to then be re-exported (Chempakam and Balaji, 2008). Officially 80 per cent of Vietnam's star anise products is sold to or transits through China,

5 When visiting Lạng Sơn Province, such teams usually hire interpreters; larger exporters often provide their own translators.

although local experts estimate that a truer figure could actually be as high as 95 per cent (Parsfield, 2019).

Local customers with a love of phở

A comparatively small amount of star anise is therefore destined for use by local consumers in Vietnam. Intermediaries based in Hanoi or Bắc Ninh Province (to the east of Hanoi) purchase the spice from Lạng Sơn wholesalers and sell it onto lowland traders of dried foods (*hàng khô*) at Đồng Xuân wholesale market in Hanoi. From here, Đồng Xuân wholesalers (usually Kinh women) sell star anise to Hanoi's neighbourhood market vendors as well as to wholesalers from other parts of Vietnam. At these nodes of the commodity chains, trust and social capital are again crucial in facilitating trade. Intermediaries between the Hanoi wholesalers and upland distributors will travel to Lạng Sơn Province to meet with large-scale wholesalers, initiating trust during preliminary meetings. Follow-up phone calls are made to maintain good relations and negotiate regular shipments if trade goes smoothly.

Wholesalers in Hanoi rely on such intermediaries for a regular supply of high-quality star anise that is fragrant, free from mould and fungus, and distinguished by having full, even carpels. One Đồng Xuân wholesaler explained the trust-based bond that developed in the relationship she has with her intermediary supplier:

> In the beginning, the whole cost [for the merchandise] had to be paid, but over time I became a regular so it was fine if I delayed a little; it was normal. Yet at the end of the year everything has to be settled in full. My suppliers know merchandise takes time to sell. Honestly, for serious people [traders] debt is an ongoing thing. […] It can also be seen as a security deposit to ensure no overpricing takes place, or a guarantee of merchandise quality… but this is only between time-tested regulars, not for new customers.

In turn, this Đồng Xuân wholesaler has her own regular customers to whom she provides goods on credit. These include large retailers in other provinces, as well as large-scale purchasers in Hanoi like restaurants and neighbourhood market traders. These local customers can phone in orders to be delivered by motorbike couriers from Đồng Xuân market. The wholesaler then receives payments after these customers have sold all their stock.

Much of the demand for star anise in Vietnam stems from its use in *phở bò* – beef noodle soup – a ubiquitous breakfast dish. Many would agree with one Đồng Xuân wholesaler, who opined: '*phở bò* without star anise is not *phở bò*'. According to multiple Hanoi residents, star anise, black cardamom, and 'cinnamon' – the three spices at the heart of this edited collection – are central to *phở bò*. These three spices are also used to season *sốt vang*, a red wine sauce. Vietnamese herbal medicine also utilises star anise, which is considered a 'hot' herb, with traditional practitioners mixing it with alcohol to create a massage oil that stimulates blood circulation and relieves joint pain.

AN UNPREDICTABLE LIVELIHOOD

Despite the versatility of star anise and the significant financial and social capital poured into the commodity chains outlined above, can farmers and rural wholesalers truly rely on it to support their livelihoods in the long run? Several aspects that we address in the following sections are discouraging. First is the volatility in the star anise market, especially as a result of its use by the global pharmaceutical industry. In addition, actors along star anise commodity chains acquire knowledge that remains highly fragmented, leaving cultivators and other uplanders especially vulnerable to price manipulation and withheld profits. Moreover, Lạng Sơn Province's official efforts to promote star anise as an export commodity and bolster its price by declaring a geographical indication seem to have failed to provide useful support in the uplands to date.

A volatile global market for a local spice

For centuries, the price of star anise has largely been dependent on demand beyond Vietnam's borders. In the colonial period, it was French traders who established the value of the spice. As one 86-year-old farmer remembered, French merchants bought star anise 'but we didn't know where they took it. We sold to them and they took it to Europe, America perhaps – we didn't know. But at that time, star anise was valued'.

The commercial value of star anise declined significantly during the collective era, but then rose again with market liberalisation. Farmers recalled the late 1980s and early 1990s as golden years for production and in 1988–1989, prices topped VND120,000 [USD30] per kilogramme of dried

star anise. According to one farmer, people would carefully collect all the fruit, making sure none was missed in the drying process. Another farmer in his 60s recalled the highest profits being in 1995–1996, when 'two kilos of dried star anise could be traded for an electric fan S91 – Thống Nhất brand – at about VND110,000–120,000 per kilo of dried star anise'. This farmer emphasised that just a 30-kilogramme star anise harvest meant you were 'very rich and could build a house'. A large-scale wholesaler concurred, saying he could 'build a house large and wide, all because of star anise'. Electric fans appear to have consistently been a marker of wealth, with another farmer noting that in 2002–2003: 'I sold 60 kilogrammes of dried star anise and 1 pig to buy a Minsk motorbike … I only needed 2 kilogrammes of star anise to buy an electric fan'.

Star anise farmgate prices became increasingly volatile in the 2000s. A Lạng Sơn wholesaler recalled that while the price was VND150,000 per kilogramme [USD10] in 2000, it soon dropped. Yet, as one exporter in Lạng Sơn elaborated, a few years later the price of star anise rose again 'because at that time, there was the bird flu H5N1 epidemic and star anise essential oil is a main component of Tamiflu'. Indeed, star anise remains the main natural source of shikimic acid, a key component in the anti-influenza medicine oseltamivir phosphate, or Tamiflu, for which the Swiss pharmaceutical company Roche gained a worldwide production monopoly in 1996 (Roche, 2005a).

The outbreaks of avian and swine flu in the 2000s appear to have had a profound effect on the price of star anise. The avian flu outbreak in the mid-2000s created enormous demand for Tamiflu, at that time seen as one of the most effective treatments against the deadly flu. As a result, Roche substantially expanded production, commandeering about 90 per cent of the world's supply of star anise (Roche, 2005b; Awang, 2006). Global star anise prices briefly soared, and in a sudden 'gold rush' (Peter, 2005: online), Chinese star anise prices doubled in a single week (Handwerk, 2005). However, in the wake of the outbreak, prices crashed before demand for Tamiflu – and prices for star anise – briefly rose again in 2009 when the swine flu pandemic hit (National Public Radio, 2009).

As one of the countries severely affected by the avian flu and the second largest producer of star anise in the world, Vietnam was eager to produce its own generic version of the anti-viral drug. News outlets reported that Vietnam was negotiating with Roche to gain permission to produce the anti-viral drug Tamiflu (Viet Nam News, 2005; BBC News, 2005) and that

scientists from Vietnam's Chemistry Institute had successfully synthesised shikimic acid from star anise (Viet Nam News, 2006). Nonetheless, things turned out rather differently. Not only did the complex technical requirements for production hold up licensing, but Roche had begun to wean itself off star anise (Elbe, 2018). In order to 'ensure that Tamiflu production is not held back by a crop failure or other disruption of supply' (Roche, 2005b: 23), their synthetic biologists had developed a microbial fermentation process for producing shikimic acid. By the end of 2005, Roche was producing about a third of its supply this way, and by 2012, most of its shikimic acid was sourced from microbial fermentation (ETC Group, 2012).

Not surprisingly, the development of Roche's synthetic shikimic acid also had an effect on the price of dried star anise in Vietnam, which dropped to VND60,000 per kilogramme [USD2.60] in 2015 and, as noted earlier, has continued to drop even further. At these prices, many farmers said that they no longer bothered to pick their fruit, concentrating instead on other supplementary crops like pine trees. The rise and fall from favour of star anise as a major component of Tamiflu closely aligns star anise with the category of 'anticipated flexing'. As noted at the outset of this chapter, 'anticipated flexing' occurs when 'no flexing happens, but there is significant anticipation of or speculation about such activities based on a clear material and logical basis' (Borras Jr. et al., 2016: 106). One could argue that a brief period of flexing occurred in this case, and that it had important impacts on both farmers' incomes and their confidence regarding expanding this crop, but it was indeed fleeting. The failure of star anise to remain a global biomedical ingredient appears to disqualify it from being labelled a 'true' flex commodity (Borras Jr. et al., 2016). Indeed, while technological breakthroughs have expanded the roles of many flex crops such as soya, the opposite has occurred for star anise with synthetic shikimic acid production severely curtailing its demand.

Fragmented knowledge

> *'I don't know where it comes from; I just go to Đồng Xuân market to buy it'* (*phở* stall holder, Hanoi).

Throughout our interviews all along the star anise commodity chains, it was striking how little the individuals at each node knew about what was happening elsewhere along the chains they were involved in. One farmer

stated: 'We only sell [star anise], we don't know what's done with it. Maybe it can be used to produce star anise oil. Traders buy from us and sell to China'. In turn, one small-scale wholesaler had no idea what the Chinese wholesalers who bought his spice at the border then did with their supplies. Some wholesalers noted that they were hindered from expanding their roles along the commodity chains. In one case, a small-scale wholesaler recounted his attempt to travel to China to sell star anise. Chinese officials let him cross the border despite lacking a passport or permit (cf. Schoenberger and Turner, 2008), but when he had sold his stock and attempted to return to Vietnam, the very same border guards confiscated his considerable earnings of nearly VND40 million [USD1,760]. This small-scale wholesaler added that he only sold to larger wholesalers with an export license after that experience. This example illustrates why many small-scale wholesalers are stuck at this node, lacking the financial and physical capital (such as trucks), in addition to the crucial knowledge and contacts needed to negotiate along the commodity chains. Though some farmers and upland wholesalers were aware that the price spike in the early 2000s was due to demand for Tamiflu, not a single interviewee – from cultivators to officials – reported knowing about Roche's synthetic shikimic acid and its impact on star anise demand.

At nodes further along star anise commodity chains, individuals notably lacked knowledge of the origins and cultivators of the spice. In the words of one wholesaler in Hanoi's Đồng Xuân market: 'Growers are bare-foot people, they know nothing about markets and stuff'. Another Đồng Xuân wholesaler said that the 'remoteness' of the cultivators appeased her food safety concerns: 'It's grown by local people, they are [natural] like that, nothing is added; we feel reassured'. When asked about the origins of the spice, several Hanoi neighbourhood market traders knew no more than that 'it comes from Đồng Xuân market', though most traders and consumers knew that it was produced 'somewhere in the north'. Star anise importers and retailers in other Asian countries, the US, and Europe seldom knew whether their stock was from Vietnam or elsewhere. Supermarkets in Europe, for example, may just label star anise as being 'of foreign origin' rather than from China or Vietnam in particular.

Overall, there was general agreement among farmers, wholesalers, and exporters that demand is driven by China and that Chinese actors 'manipulate prices'. It was a common complaint among farmers that the market was unstable 'because of the Chinese', while wholesalers in Hanoi's Đồng Xuân

market criticised Chinese individuals participating in these commodity chains. Visiting Chinese wholesalers frequently purchase all of the market's available star anise, forcing market traders to quickly order more stock from upland wholesalers, often at an inflated price. The Chinese buyers then quickly depart, leaving the Hanoi market wholesalers with an oversupply. As one Đông Xuân wholesaler said:

> When [the Chinese] buy, prices go up at least double... They clean up awfully quick, in 1–2 days there isn't anything left… Some days we see a stranger come in asking to buy a few dozen kilos, but they end up taking all my stock of 100–200 kilos. We soon realise Chinese are buying; they clean up Đông Xuân market. Whatever the Chinese buy, there's nothing left… Sometimes they buy and suddenly stop, and then we're stuck with high-priced stock.

Though the specific meanings and representations of geographical origins have been investigated in relation to how they are advertised at sites of consumption (e.g. Crang, 1996; Leslie and Reimer, 1999; Cook et al., 2004), less research has probed how actors along commodity chains may lack access to relevant geographical knowledge. As noted by Appadurai (1986: 41): 'The production knowledge that is read into a commodity is quite different from the consumption knowledge that is read from the commodity... these two readings will diverge proportionately as the social, spatial, and temporal distance between producers and consumers increases'. Star anise farmers are 'in the dark' about the larger sums of money accrued further along the star anise commodity chains and rely on rumours rather than on reliable information. The highly segmented state of market knowledge also precludes the players in the star anise industry in Vietnam from creating links of solidarity with each other, for instance to potentially pressure the government to improve transportation links, or to take collective action to prevent profits from vanishing into the hands of Chinese traders. Beyond talking to their neighbours, farmers did not appear to communicate widely to establish a reasonable farmgate price or exchange information on the reliability of wholesalers. In the event of a complete market collapse – as is currently taking place – local farmers and traders are left on their own to readjust and diversify their livelihood portfolios. With market knowledge so compartmentalised, more powerful actors further along the commodity chains are able to profit while farmers and small-scale traders are left with

limited prospects. We would argue that such fragmented information and communication means that numerous possibilities for innovation and cooperation are squandered.

The (unmet) promise of a geographical indication

The last two decades have increasingly exposed star anise farmers and traders to the vagaries of the global market while enriching actors outside Vietnam. However, provincial officials maintain that the spice has lucrative potential. Containing 71 per cent of the total star anise forest in Vietnam, Lạng Sơn Province has deemed its production 'a key economic and *long-term* strategy' (Lạng Sơn Province Department of Science and Technology, 2007, emphasis added). As part of this push, an '*appellation* of origin' for Lạng Sơn star anise was established by order of the provincial People's Committee. The 'geographical indication'[6] of Lạng Sơn star anise was approved in May 2007 by the national Department of Intellectual Property, making it into a 'national property' to be 'indefinitely protected by the state' (Hoa Hồi Lạng Sơn, 2014a: online).

Officials at the provincial and national levels (but not at the district and commune levels) consider this geographical origin indication an important step in establishing Lạng Sơn star anise as a high-quality speciality crop on domestic and global markets (Hoa Hồi Lạng Sơn, 2014a; 2014b). According to Lạng Sơn provincial officials, the registration scheme will boost exports (Hoa Hồi Lạng Sơn, 2014a), and help them to market Lạng Sơn as 'the largest raw material area [for star anise] not only in the country but in the world' (Hoa Hồi Lạng Sơn, 2014d: online). Along the same lines, the Lạng Sơn Province Department of Science and Technology launched a star anise information website. On the occasion of the 12th Party Congress, street lamps were festooned with posters of star anise, which also appears on the provincial logo, and in May 2016 the provincial People's Committee organised a star anise-themed festival. At the national level, in 2013 the Department of Intellectual Property and the Vietnam Book of Records listed Lạng Sơn star anise as one of the top ten best natural products in Vietnam (Hoa Hồi Lạng Sơn, 2014c).

6 As also discussed in Chapters 3 and 7, a geographical indication is 'a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin' (WIPO, 2013: 8). Other examples include champagne, tequila, and gruyère cheese.

Despite the fanfare surrounding these promotions, it is still unclear how they might affect farmers and local wholesalers. We only met one farmer participating in the 'geographical indication' scheme, who had heard of it at a meeting of a local organic products cooperative. One small-scale wholesaler also recalled learning about it from the large-scale wholesaler he supplied, but he thought nothing more of it. The rhetoric of the state has clearly not affected local marketing, as is investigated and supported further in Chapter 7 of this collection.

While Vietnamese scientists have been funded to research shikimic acid extraction (Bích Liên and Anh Ngọc, 2006), we found little evidence of tangible state support to farmers and local wholesalers. One exception was the subsidisation and donation of seedlings by the local government to poor farmers (VND3,000–4,000 [USD0.13–0.18] per sapling in 2015). This programme began after the 'appellation of origin' scheme in 2007, and while the subsidised nurseries are privately run, they appear to have been established by the state. We heard of one instance in which the wife of a local DARD official became the owner of such a nursery after a series of 'irregular payments', and local farmers cited numerous instances of graft along the supply chain of star anise inputs. According to one middle-aged farmer: 'If I am a Director of the Department of Agriculture then I will let my relatives and children grow seedlings and when the project comes, the money will come into my relatives and children's pockets. They don't care about the quality of the seeds or seedlings'. He continued: 'It takes 15 years to notice whether the seeds are good or not, so almost a lifetime of the Director's position. So when the star anise tree gives a harvest, the Director is retired; no one takes responsibility for the quality of star anise seedlings anymore. The conscience of the Vietnamese is a bit cheap'.

When asked whether DARD supports star anise cultivation and promotion or wields any regulatory power over quality, another farmer laughed: 'They are young and they don't know as much as we do'. According to all the farmers we interviewed, DARD had never provided them with information regarding growing star anise or best practices. A senior official from DARD whom we interviewed was indeed quite young, and seemed to know very little about the regional history of star anise, the amount of acreage under cultivation, local trade patterns, growing techniques, or any specific production improvement programmes.

Overall, the government's marketing and promotion of Lạng Sơn star anise appears to be in its infancy compared to other large-scale cash crops

in Vietnam like tobacco and coffee (Castella and Dang, 2002). In this sense, the industry is similar to that of Vietnamese cardamom, which also sees little state involvement, as discussed in Chapter 3. Local star anise farmers and wholesalers were certainly unimpressed with official efforts to improve their livelihoods, and it remains unclear to what extent state and private efforts will actually improve the ability of local actors to respond to price vagaries and to access viable, stable livelihoods. Private export companies are thus taking the promotion of star anise into their own hands, marketing products like essential oils, room fresheners, necklaces made out of star anise root, and even therapeutic scented pillows.

CONCLUSION

For a few years at the beginning of the millennium, star anise appeared to be a globally relevant flex crop, with skyrocketing demand for use in the anti-influenza medicine Tamiflu, alongside more traditional usages of the spice. But when concerns about supply spurred the development of alternative production methods for shikimic acid, star anise soon faced an economic bust, and market volatility threw farmers' livelihood decisions into doubt. Given that farmers were left with farmgate prices valued at only one-third of their peak, we inquired as to why farmers kept growing star anise trees. One elderly farmer noted that the trees can last at least three or four generations, so he maintains them for his children's and grandchildren's sake. The majority of Nùng and Tày farmers in Lạng Sơn Province continue to retain a customary livelihood system centred around staple crops for their own consumption, drawing on economic reciprocity within the family and village, and engaging in small-scale trade and local wage work as needed. As previously noted, the cultivation of star anise comprises only a portion of this composite livelihood approach, with rice or maize grown as a core staple alongside fruit trees like longans, persimmons, plums, and peaches to sell for cash and pine trees to tap for resin (used as an ingredient for paint and glue). Fruit trees generate important short-term revenue when market conditions are right, and farmers consider them a potential long-term source of income. Farmers know that they can continue to rely on star anise in a variety of ways during difficult times, giving it the status of a contingency crop. For example, despite the fact that he had stopped picking star anise, one farmer lauded the crop: 'No tree can live as long as star anise at 100-years-old and

no tree is as valuable as star anise'. This farmer wanted to retain the trees for his descendants, while also noting that star anise wood is valued by farmers as a building material when needed, with its resistance to termites making it an attractive option for house construction.

A high degree of knowledge compartmentalisation along the star anise commodity chains means that the numerous actors involved poorly understand each other's roles and/or the causes of price fluctuations. The state has been actively supporting Lạng Sơn star anise, especially by creating a geographical indication, while some export companies have recently begun to promote the organic production and export of star anise. Notwithstanding this, farmers and traders have not experienced any useful benefits materialising from this endeavour. Instead, it appears that they continue to be 'on their own' in the face of global price fluctuations, cross-border trade challenges, and the realities of maintaining rural livelihoods with rising input costs. The hopeful narrative of star anise as a flex crop has not materialised, since technological innovations have all but eliminated its demand in the global pharmaceutical industry. Local ethnic minority farmers in this frontier locale therefore continue to pursue diversified livelihoods as they have through centuries of economic uncertainty, rather than relying on a single 'star' flex crop.

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CHAPTER 3

Cardamom cultivator concerns and state missteps in Vietnam's northern uplands

Patrick Slack

INTRODUCTION

The Vietnamese state has been diligently attempting to implement its ideal vision of 'modernised' agricultural landscapes in its northern upland provinces. An agrarian transition, as outlined in Chapter 1, remains in full swing here, with agricultural intensification and mechanisation strongly encouraged by local officials as pathways to 'ideal' agrarian production systems for ethnic minority farmers (McElwee, 2009; Scott, 2009; Turner et al., 2015). In recent years, the northern uplands have been targeted by agricultural development policies facilitating the mono-cropping of cash crops and agricultural intensification to promote food security and surplus for trade. Most notably, hybrid rice and maize seeds have been introduced to this frontier region, along with chemical fertilisers and pesticides, all of which need to be purchased yearly (Bonnin and Turner, 2012; Kyeyune and Turner, 2016). Other cash crops have also been promoted by state programmes, encouraging the mono-cropping of 'cinnamon', coffee, eucalyptus, and rubber (McElwee, 2009; Pick et al., 2017).

Two specific rural development programmes have helped to modify the agricultural landscapes of these uplands: the 'One Commune, One Product' (OCOP) programme, and geographical indications (GIs).[1] While Vietnam has only recently implemented the OCOP programme, it is built upon rural specialisation schemes that have been implemented across Asia since the late 1970s (Hoang et al., 2018). The most well-known in the region is Thailand's

1 GIs are managed by provincial People's Committees (government administrations), overseen by both the Ministry of Agriculture and Rural Development and the Ministry of Industry and Trade (Pick et al., 2017).

'One Tambon One Product' (OTOP) programme, which has focused on the sub-district level and has reached over 50,000 communities across the country since its inception in 2001 (ibid.). Although Thailand was not the first country to implement niche crop programmes, it was the first to scale up such initiatives nationwide, serving as a trendsetter for commodity-based rural development schemes across Asia (Natsuda et al., 2012; Hoang et al., 2018; Nobel, 2019).

Similar to other top-down interventions in Vietnam, such as Programme 135 ('Programme for the Socio-economic Development of Extremely Difficult Mountainous and Remote Communes') and Programme 143 ('National Target Programme for Hunger Eradication, Poverty Reduction and Job Creation') (Nguyen and Baulch, 2007), the OCOP programme was introduced as a rural development plan touted to improve food security and reduce poverty (Hoang et al., 2018). Unfortunately, such interventions have frequently disregarded the local and culturally appropriate livelihood strategies that semi-subsistence ethnic minority communities have relied upon for generations in these uplands (McElwee, 2004a; Forsyth and Michaud, 2011).

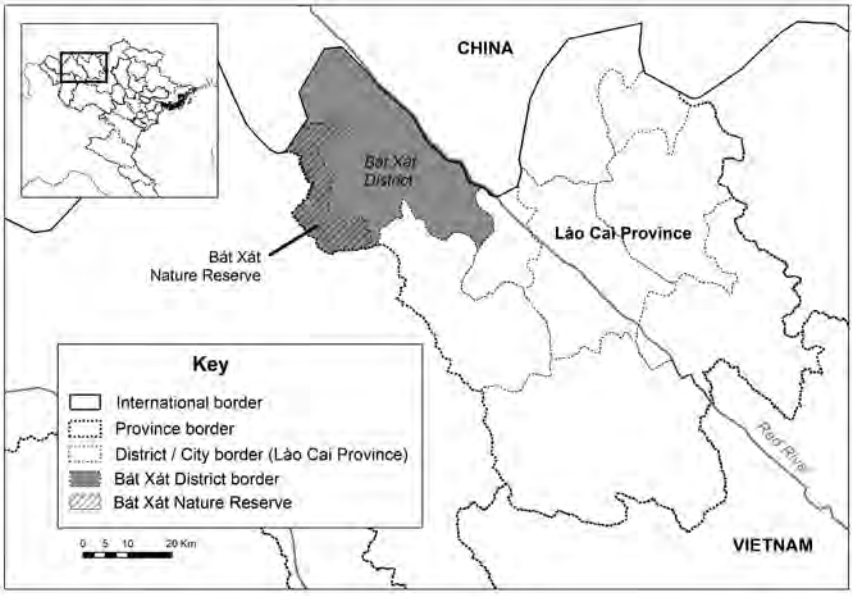
Livelihoods in these upland communities have long been centred on cultivating landrace varieties of rice, maize, and cassava, with the quality of the soil, micro-climates, and slopes usually determining the specific crops grown. Households supplement these staple crops with livestock such as water buffalo, pigs, goats, and chickens, as well as home gardens composed of vegetables and fruit trees. Households often also collect a range of non-timber forest products (NTFPs) for consumption including black cardamom, mushrooms, honey, and wild game. When a household needs additional income or sustenance, or when a household secures a surplus harvest, people engage in small-scale trade at local periodic markets, often selling home-distilled alcohol, NTFPs, or livestock. In this chapter, I explore how 'successful' the Vietnamese state has been at transforming ethnic minority households' livelihoods – which have relied on such semi-subsistence approaches for generations – into 'ideal', 'modern' farming approaches, with a focus on households whose prime cash crop was or still is black cardamom. This is taking place within the context of an agrarian transition strongly supported by the Vietnamese state, alongside rising numbers of extreme weather events across these uplands.

First, I draw upon conceptual debates regarding livelihood coping responses, adaptation strategies, and diversification, outlined briefly in the next section. I then introduce my case study site, Bát Xát District, a relatively remote

mountainous region located in Lào Cai Province, directly on the border with China (Map 3.1.), and home to Yao (Dao), Hmong (H'môngg), and Hani (Hà Nhì) minority farmers. Third, I analyse a range of livelihood pathways farmers in this district have engaged with in response to increasing cash needs, primarily due to the introduction of hybrid rice and maize seeds across these borderlands. I find that black cardamom has emerged as a firm favourite amongst Bát Xát's ethnic minority farmers despite this NTFP not being a state-endorsed 'modern' cash crop. I also find that, along with the state-induced agrarian transition occurring in this district, black cardamom cultivators have needed to negotiate an increasing frequency and intensity of extreme weather events. Such events have risen in severity since 2008, including protracted bouts of drought and cold-weather precipitation, such as freezing rain, hail, and snow. Moreover, I describe how these shocks have been compounded by specific state plans to create a nature reserve in the west of the district, further curtailing the ability of farmers there to cultivate cardamom. Fourth, I focus on farmer adaptations to these extreme weather events and state policies, revealing the broad range of complementary crops and options that farmers have sought out, including livestock intensification, wage labour, and silviculture. Such complex engagements with diversification and adaptation approaches continue to contest state ideals. I conclude that despite state efforts to make these borderland communities engage with specific commodities and schemes, officials have failed to build trust-based relations and to fully appreciate the social capital ties and cultural nuances of farmer livelihoods. In the meantime, farmers note that black cardamom remains a top choice for cash income within their diversifying, semi-subsistence livelihoods.

This chapter is based upon ethnographic fieldwork completed in Bát Xát District in 2018, with ongoing updates from informants via mobile phone until November 2021. I interviewed a total of 139 farmers from 122 rural households, including 73 Yao (38 of whom were women), 50 Hmong (nine women), and 16 Hani (seven women) individuals. The proportions of the ethnic minority households interviewed broadly reflected the ethnic composition of cardamom cultivators in the district. Of Bát Xát District's total 23 communes, I made sure to complete interviews in all 21 communes where cardamom is cultivated.[2] I conducted interviews – conversational,

2 One of the remaining communes is the urban area of Bát Xát Town, and farmers and state officials confirmed that neither commune has cardamom plots.



Map 3.1. Bát Xát District, located in Lào Cai Province, upland Vietnam.

semi-structured, and oral histories – across agro-ecological conditions, including at different proximities to the Sino-Vietnamese borderline and at different market hubs. Interview themes covered changes observed over the past three generations, with a focus on cardamom cultivation, other livelihood components, extreme weather events, forest cover, and comparisons of trends across households. Besides interviews with ethnic minority cardamom cultivators, I conducted semi-structured interviews with 21 government officials, all of whom were Kinh men, except for one Kinh woman. Throughout my fieldwork, overt participant observation also prompted new interview themes and questions.

CONCEPTUALISING DIVERSIFICATION IN VIETNAM'S UPLANDS

In this chapter, I utilise the livelihood concepts of coping strategies, adaptation strategies, and diversification in order to better understand the combined impacts of state 'frontier capitalism' approaches (see Chapter 1, this collection) and the rapid rise in extreme weather event frequency and severity across the northern Vietnamese uplands on farmer livelihood options.

Coping strategies can be considered as reactive, short-term actions that are either erosive or non-erosive, and that are often in response to a livelihood shock (Davies, 1993; Scoones, 1998; Small, 2007). Erosive coping strategies 'dispose of assets, undermine [an individual or a household's] nutrition and health, and generally erode their availability to survive in the present and the future' (Cannon and Müller-Mahn, 2010: 623), diminishing the effectiveness of the strategies over time (Davies, 1996). Non-erosive coping strategies either retain or improve stores of capitals and/or capabilities, while also assisting in the recovery from unanticipated exogenous factors (ibid.). In comparison, adaptation strategies are broadly conceived of as longer-term approaches that household members engage with to ameliorate vulnerability contexts in response to longer-term trends, seasonality, or other on-going negative experiences (Ellis, 1998; Scoones, 1998; Agrawal, 2010).

Scoones (1998: 9) considers livelihood diversification as a route to coping 'with temporary adversity or more permanent adaptation of livelihood activities, when other options are failing to provide a livelihood'. Ellis (2000a) suggests four modes of diversification that household members may pursue: 1) on-farm diversification, including localised wage labour and the adoption of new crops; 2) on-farm, non-farming activities such as homestays, or furniture and textile production; 3) local, off-farm activities such as factory labour, NTFP cultivation, or marketplace trade; and/or 4) labour activities that necessitate migration outside of local areas to distant cities or across national borders (see Bouahom et al., 2004, for a similar categorisation based in Laos).

Other definitions of diversification highlight the motivations behind new livelihood pathways. 'Progressive diversification' can take place in response to a positive 'pull' factor. Such diversification may incentivise the multiplication of livelihood strategies by household members, using available assets to improve livelihood outcomes such as gaining increased cash or livelihood security (Ellis, 1998; Bouahom et al., 2004). Alternatively, 'distress diversification', or a response to a negative 'push' factor, can be employed by household members to address vulnerability stressors, such as restricted access to land or accumulating debt (Ellis, 1998; 2000a; 2000b; Bouahom et al., 2004; Scoones, 2009). A more flexible diversification approach, 'selective diversification', comprises the engagement in a new livelihood activity when the particular timing and specific circumstances of a household member makes it a viable option, with the ability to (dis)engage again if circumstances change (Turner, 2007).

There remains a fair degree of 'conceptual confusion' regarding the terms coping strategies, adaptation strategies, and diversification, with a number of authors drawing contradictory connections and other causal relationships. For example, some authors consider coping strategies to be a 'component of diversification' (Vincent et al., 2013: 195), a mechanism for the adaptation to specific events, or an adaptive strategy (Hussein and Nelson, 1998). Highlighting these categorical difficulties, Ellis (2006) notes that distinguishing the point where coping ends and adaptation begins remains challenging, particularly with regard to retrospective data collection. Following Davies (1993), in this chapter I consider coping strategies as immediate responses to an unanticipated negative shock. In turn, 'successful' or reliable coping strategies may evolve over time into adaptation strategies (Small, 2007). Thus, I deem adaptation strategies to be longer-term livelihood responses to negative 'push' factors, and hence these strategies might include what has also been defined as distress diversification. In comparison, I determine that progressive livelihood diversification occurs in response to positive 'pull' factors (Ellis, 1998; Agrawal, 2010).

CONTEXTUALISING ETHNIC MINORITY LIVELIHOODS IN LÀO CAI PROVINCE

Northern Vietnam's Lào Cai Province has been the focus of important and persistent state efforts to integrate a high proportion of upland ethnic minority communities into 'modern' agricultural ideals through 'development' interventions and policies lauding food security, market integration, and 'enhanced' natural resource use (De Koninck, 1996; Turner et al., 2015; McElwee, 2016). Lào Cai Province's Bát Xát District, a mountainous district covering 1,057 square kilometres and abutting the Sino-Vietnamese borderline, has been a prime target of such government interventions. As of 2019, there were 82,733 people residing in Bát Xát District, of whom close to 18 per cent were Kinh, 31 per cent Hmong, 26 per cent Yao, 18 per cent Giáy, six per cent Hani, and two per cent 'other' (Socialist Republic of Vietnam, 2020).

As recently as the 1990s, farmers traversed the mountainous landscapes here on foot or on horseback, along rugged trails. Since then, an extensive government-funded road infrastructure has been introduced or upgraded, although four-wheel drive vehicles or motorbikes are still needed to navigate

many routes today. Access to electricity for rural inhabitants across Bát Xát District has also been improved, in part due to the 'New Countryside Programme', just one of the numerous 'development' programmes implemented here. This programme has also promoted 'modern' housing styles, which means, as farmers explained to me, that houses must be constructed with cinder blocks, bricks, and/or corrugated iron, instead of following traditional methods of construction using wood or clay (see also Nguyen, 2016; Nguyen, 2017). With regard to agriculture, extension officers have persistently encouraged hybrid seeds, seeking to intensify staple crop production to increase food security and stimulate entrepreneurship, through farmers selling their surpluses. Farmers confirmed that state-supported hybrid varieties of rice – which can only be grown in terraced wet fields – have become increasingly prevalent. However, despite government encouragement to grow hybrid seeds, many farmers with whom I talked have continued to cultivate landrace varieties of rice, with some varieties grown in terraced, wet-rice fields, and others in swidden fields, along with landrace varieties of maize. They noted that they preferred these seeds for their taste, their preservation qualities, and their cultural importance in a range of ceremonies and as heirloom seeds.

Along with agricultural intensification programmes, forestry programmes have also been implemented in Bát Xát District since the early 1990s, aiming to halt swidden agriculture, regulate and restrict natural resource use in forests, and reforest or afforest large swaths of land (McElwee, 2004b; Castella et al., 2006). Whereas closed-canopy forest covered approximately 11 per cent of the land area of the district in 1999, this area had expanded more than fivefold to 63 per cent by 2014 (Trincsi, 2014). Although this increase in closed-canopy forest cover may be attributed to forest access restrictions and silviculture programmes, farmers also detailed how they specifically regenerate forests to protect and improve the yields of their cardamom crops, which are grown under the shade of tall canopy trees (see also Trincsi et al., 2014).

Nonetheless, despite cardamom cultivators working to preserve and regenerate forests, the government has other forest management plans. In 2013, the Lào Cai Province's People's Committee (LCPC) passed Decision 12 to restrict black cardamom cultivation across the province (Lào Cai Department of Agriculture and Rural Development [LCDARD], 2013). The LCPC and the provincial-level LCDARD determined that black cardamom cultivation was thwarting forest regeneration, with officials explaining to me that this was due to the removal of immature trees for optimal cardamom

productivity, along with the collection and burning of dead trees to dry the spice in situ (see also LCDARD, 2013; see Figure 3.1.). Furthermore, in 2015 a project entitled KfW8 or 'Sustainable Forest Management and Biodiversity as a Measure to Decrease Carbon Dioxide Emissions' was implemented throughout Lào Cai Province, as well as in the neighbouring upland provinces of Yên Bái, Lai Châu, Hà Giang, and Bắc Kạn (Management Board for Forestry Projects [MBFP], 2015). With funding totalling USD32.31 million provided by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ; the German Development Agency), the project aims to increase carbon stores, improve economic development, enhance forest ecosystem services, and promote biodiversity conservation (MBFP, 2015).

One of the key components of the KfW8 project has been the establishment of the Bát Xát Nature Reserve (BXNR) in 2017 (LCPC, 2017). Spanning five communes, the BXNR covers 18,637 hectares of upland forest, or nearly 20 per cent of the district (ibid.). For now, within the core of the BXNR the collection of NTFPs and timber is prohibited, with the *exception* of black cardamom. Farmers are nonetheless restricted from expanding cardamom plots or burning dead wood to dry cardamom pods. Voluntary and paid forest patrols are organised and funded by KfW8, in addition to the promotion and allocation of loans for alternative income sources. Government officials with whom I discussed the BXNR and its regulations have indicated that while only the expansion of cardamom cultivation is prohibited for now (and existing plantations are still being harvested), all cultivation will be banned within the BXNR in the near future.

In accordance with the geographical indication and the 'One Commune, One Product' programmes being promoted by Vietnam's central government, Lào Cai Province's five-year rural development plans seek to advance the intensification of specific cash crop production as an important socio-economic development model (LCPC, 2015; 2016). Provincial officials encourage ethnic minority households in Bát Xát District to establish monocrop plantations for cash income, including for pears, oranges, and kiwifruit, as well as the cultivation of specific varieties of rice and medicinal plants. The provincial government also advises households to intensify the breeding of water buffalo and local black pigs and to create cold-water trout fisheries (LCPC, 2015; 2016). An agricultural extension official in Bát Xát District explained: 'In the future we want farmers to specialise in medicinal plants and fruit tree production, so they'll have a guaranteed income source

Figure 3.1. Dried black cardamom ready for sale to intermediary traders, Lào Cai Province, Vietnam. **Colour** p. 148.

and the same buyers for their product'. Similarly, a senior official at the Bát Xát Nature Reserve noted: 'With the KfW8 project, we have been promoting the cultivation of specific medicinal crops around Y Tý Commune, in addition to fisheries and pear tree cultivation around the Nature Reserve, so that farmers have a substitute for black cardamom income'. Nonetheless, for farmers to want to engage in growing such crops, they need to have trust in intermediaries and market prices. The government has not been successful in demonstrating an ability to guarantee such market linkages to date, a point I return to later. Therefore, while government officials seek to spread specific cash crops and speciality farming options, farmers remain fairly loyal to black cardamom. These farmers are wary of many of the options the state is promulgating, although they are also willing to 'test the ground', especially if family and friends have done so before them.

GROUNDED REALITIES

Black cardamom: Frowned upon by the state, but a farmer favourite

Since the introduction of hybrid rice and maize seeds to Bát Xát District in the late 1990s, many upland farmers have begun cultivating and trading black

cardamom to fund the purchase of agricultural inputs (such as hybrid seeds, fertilisers, and pesticides). While these inputs were initially subsidised for households deemed 'poor' by government parameters, farmers explained that the subsidies were subsequently reduced, with some incentives revoked completely. Drawing from their traditional ecological knowledge and utilising their existing informal access to closed-canopy, highland forests, many farmers pivoted to black cardamom cultivation from previously harvesting only small amounts of the fruit from the forest floor when needed for household medicinal use. Farmers explained that they were keen to try to expand their involvement with this crop because of rising demand for the spice across the border in Yunnan Province, China (see also Turner, 2018).

Cultivators gain initial access to black cardamom plots by clearing the forest understory in plots they have inherited from kin, or far less commonly, by purchasing informal land-use rights. With cardamom plots located in relatively high-altitude forests, travelling to the plots can often take a whole day, depending on proximity, difficulty of terrain, physical infrastructure, and available modes of transportation (usually motorbike and/or hiking). Households typically clear and weed their cardamom plots twice a year, depending on labour availability and the quality of the land. Harvesting and drying cardamom then takes one to two weeks, depending on the size of one's crop. For a month preceding their harvests, cultivators often stay in the forest to protect their precious commodity from theft. The labour demands of cultivating cardamom nonetheless remain low compared to other livelihood activities and cardamom cultivation is also somewhat flexible and fits in well with local livelihood calendars, as it does not interfere with the timing of staple crop production or of regular important cultural events.

The income that farmers gain from selling cardamom depends on the quality and size of their harvest and on current market prices. Prior to the extreme weather events that have been devastating cardamom yields repeatedly since 2008, research participants reported receiving between USD269–5,375 per year for their dried cardamom harvests. To put this financial windfall into perspective, the United Nations International Children's Emergency Fund (UNICEF) and the Lào Cai Province People's Committee released a joint report in 2016 stating that the per capita income within Lào Cai Province was VND17,616,000 [USD758] per year (United Nations International Children's Emergency Fund and Lào Cai Province People's Committee, 2016). This influx of cash thus contributes substantial-

ly to household financial capital, with farmers explaining that it was funding not only the purchase of hybrid seeds and other agricultural inputs, but often also new motorbikes, school fees for children, and house improvements.[3]

In the late 2000s, those who had successfully diversified into black cardamom cultivation were hit by a series of shocks as extreme weather events became increasingly frequent. These events included extended droughts, floods, and a slew of cold-weather precipitation, such as freezing rain, hail, and snow (Delisle and Turner, 2016; Rousseau et al., 2019). Farmers recounted that the winters of 2015 and 2016 had been particularly severe. Vang, a 40-year-old Hmong farmer, recalled that the 2016 winter caused the 'most snow damage, with 80 centimetres in the cardamom forest!'[4] Vang and other respondents perceived the winter of 2016 to have been the harshest in living memory, with irregular and heavy snowfalls and extreme, prolonged cold. The weight of snow and hail on cardamom leaves and extended and extreme periods of cold temperatures devastated cardamom plants and limited fruit development for at least the following two to three years (Figure 3.2.).

All ethnic minority farmers whom I interviewed noted that from the mid–2010s onwards their cardamom harvests have returned less than one-third of their regular yields, with many experiencing complete crop failures. These failures steadily increased from as early as 2013, when ten per cent of all cardamom-cultivating households had complete cardamom crop failures. These proportions increased yearly, with 24 per cent of households reporting complete crop failures in 2014, rising to 46 per cent of households in 2015, 58 per cent in 2016, to a staggering total of 62 per cent of households in 2017. Comparing extreme weather events across her lifetime, Ta May, a 64-year-old Yao farmer recalled: 'About two years ago [2016]… it was the most terrible winter… the most terrible snow ever. Before, when I was a kid, there might be some white stuff on the top of the trees some winters, but not on cardamom shrubs. Now, there's so much snow it's killed all the cardamom'.

While farmers remain anxious about extreme weather events potentially devastating their cardamom harvests, those living in the western regions of

3 Between 2008 and 2018 farmgate prices for black cardamom in Bát Xát District ranged from VND130,000 [USD5.60] to VND450,000 [USD19.35] per kilogramme, the highest price coming after the harsh winter of 2016 when many crop failures were reported and low supply drove prices up. Since 2017, the price has hovered around VND220,000 [USD9.45] but increased to as much as VND400,000 [USD17.60] in February 2021 (interviews, 2018–2021).

4 All names are gender-appropriate pseudonyms.

Figure 3.2. A black cardamom crop coming to fruition for the first time in four years, Lào Cai Province, Vietnam. **Colour** p. 149.

the district must now also navigate a number of uncertainties regarding the establishment of the Bát Xát Nature Reserve in 2017, limiting NTFP cultivation and collection, including cardamom, in the core of the reserve. The government's proposed curbing of black cardamom cultivation frustrated many ethnic minority cultivators, who argued that growing cardamom was contributing to *protecting* local forests and expanding closed-canopy cover. Ngan, a 38-year-old Yao male farmer, noted bitterly:

> If they ban cardamom we will die of poverty. How can they tell us to stop growing cardamom when we will still be hungry without it? … KfW8 is so terrible, we aren't allowed to collect wood for our house … but we have no [financial] support to build with bricks and cement and other materials … we know we need to protect the forest, but that project doesn't allow us to collect anything.

Because of this 'double whammy' of livelihood shocks, a number of farmers are now experimenting, yet again, with other crops. One could argue, therefore, that cardamom has served as a form of 'gateway crop', a term Mahanty and Milne (2016) use to refer to a commodity that leads to

intensified capitalist relations for rural communities. Nonetheless, despite the rising difficulties in maintaining black cardamom as a livelihood option, the majority of Bát Xát farmers whom I interviewed indicated that they will continue to tend to their cardamom fields, in the hopes of 'better times' ahead.

Farmer adaptation to extreme weather and state policies: Complementary crops and options

Alongside rising numbers of extreme weather events, Bát Xát farmers must now navigate an increasingly complex socio-economic, political, and climatic context in which state policies encourage monocrop plantations while obstructing cardamom cultivation. Applying Ellis's (2000a) four types of diversification to this case study, I found that – despite state attempts to create 'modern' mono-cropping farmers – ethnic minority farmers are taking a far more heterogeneous approach to exploring new livelihood strategies. Not only did I find each of Ellis's (ibid.) four diversification categorisations present in Bát Xát District as a whole, but more surprisingly I often noted multiple types of diversification employed within a household (sometimes all four) or in neighbouring households. Thus, far from borderland residents becoming cash- and mono-cropping farmers as the state hopes they will, a distinct rise in the diversity of Bát Xát farmer livelihood activities is occurring instead. Farmers are carefully selecting complementary livelihood strategies and testing crops that align with their ongoing labour calendar demands and household needs.

⁜ *The top complementary option – livestock intensification*

Following the harsh winters of 2015 and 2016, and subsequent damage to black cardamom plants, the most common livelihood adaptation approach farmers took to meet cash demands was to intensify their livestock rearing of traditionally bred animals such as chickens, local black pigs, and water buffalo. Indeed, over half (55 per cent) of interviewed households decided to raise and sell more animals than they had previously, as an adaptation strategy to respond to cardamom shocks.

Farmers often chose more than one type of livestock, with 30 per cent of interviewees intensifying their breeding of both black pot-bellied pigs and chickens. In 2018, chickens sold for roughly VND200,000–250,000 [USD8.60–10.75] each, with households often selling 10–60 chickens annually, gaining VND2,000,000–12,500,000 [USD86–538]. Households

raising black pot-bellied pigs typically sold both piglets and adults, with households commonly selling six to twenty piglets for VND100,000 [USD4.30] each, plus raising and selling between three to twenty large black pigs for VND90,000 [USD3.90] per kilogramme in 2018. These adult pigs ranged from 30–100 kilogrammes, hence, depending on the weight and number of animals sold, farmers could generate a fairly substantial VND8,100,000–50,400,000 [USD348–2,167] per year.

Since 2015, 11 per cent of farmers have begun to breed buffalo with the intention of selling them. This marks an important change from the roles water buffalo have traditionally played in ethnic minority upland livelihoods, being customarily traded only in times of great emergency (Garber, 2021). In 2018, the price of a buffalo ranged from VND11,000,000–23,000,000 [USD473–989], with health, size, and age, as well as the bargaining prowess of the buyer or seller, determining specific prices.

However, although farmers in Bát Xát District have taken up livestock rearing as an adaptation strategy to compensate for lost income from cardamom, extreme weather events have caused substantial livestock losses. Due to extremely cold winters in 2015–2017, 18 per cent of households lost at least one buffalo. Sixteen per cent of households also experienced chicken and pig deaths due to disease attributed to irregular and erratic changes in temperature. For farmers who lost buffalo to extreme cold, selling the meat was a common coping strategy, although the selling price was roughly half the sale price of a live animal. The government distributed poultry (chickens, ducks, geese) to compensate upland households experiencing these climatic shocks, but this gesture unfortunately harmed farmers more. When I discussed this in 2018 with Nhay, a 55-year-old Yao farmer, he grumbled that government officials were 'embezzling money. They supported us by giving us chickens, but when the chickens arrived, they were all dead or very ill and transferred diseases to our other animals. The government bought sick poultry and the officials kept the money!' This was reported in more than one commune, with Gu, a 26-year-old Hani woman farmer in a commune far from Nhay's, noting that '60 to 70 per cent of the poultry died in my village due to the diseased poultry from the government!'

Although both extreme weather events and local government programmes increased the risks associated with livestock breeding and rearing, farmers still largely preferred this adaptation strategy to other options discussed below. Raising livestock allowed farmers to remain on their farms,

Table 3.1. The year the first household member to undertake wage labour began to do so, by proportion of interviewed households where at least one member engaged in this activity, Bát Xát District (N = 55).

Year	The percentage of first household members to undertake wage labour in a given year
2008–2012	9%
2013	20%
2014	11%
2015	38%
2016	11%
2017	9%
2018	2%

as opposed to adaptation or diversification options requiring migration. Rearing animals also allowed them to draw upon existing traditional ecological knowledge for animal care, as opposed to navigating new crops and the potential stumbling blocks associated with them. Animals also continued to embody multiple livelihood capitals, with buffalo serving as physical capital when ploughing fields, financial capital when traded, and holding important cultural value when involved in ceremonies and shamanic rituals (in contrast to new crops, which only have a cash value).

⁜ *Second complementary option – wage labour*

Interestingly, just under half (45 per cent) of interviewees indicated that one or more members of their household had begun to engage in wage labour since the late 2000s, making it the second most common adaptation strategy. I did not anticipate the prevalence of this activity, as wage labour has been relatively unobserved among ethnic minority farmers elsewhere in the province to date (e.g. Turner et al., 2015). Table 3.1. notes the year household members began to engage in this option.

Of the households where one or more members had pursued wage labour, 84 per cent reported that the decision represented an immediate coping mechanism in response to cardamom crop failures. In relation to this, 70 per cent of interviewees indicated that if their household were to harvest an average cardamom harvest again, then household members would halt their wage labour, with only 30 per cent of interviewees considering wage labour as a long-term adaptation strategy for their household.

Agricultural wage labour undertaken in Vietnam or Yunnan, China, the latter being more common, included growing maize or rice for others, and working on banana, ginger, or black cardamom plantations. Other labouring options spanned employment in fisheries or wood processing plants, working as a border market porter, or as a manual labourer in hydroelectric dam maintenance, mining, or construction. In Vietnam, daily wages for these occupations ranged from VND150,000–250,000 [USD6.45–10.75], while wages in Yunnan fluctuated between RMB50–70 [USD7.25–10.15] per day. To put this into perspective, a day's wage on either side of the Sino-Vietnamese borderline roughly equated to the average income farmers gained for selling a kilogramme of cardamom. This wage labour option provided individuals with yearly incomes ranging between USD172–2,030, dependent upon the skills required, the location, and the number of days worked. It should be noted, however, that most yearly incomes were at the lower end of this range, as farmers tended to engage in wage labour infrequently, when their households required a cash injection.

⁜ *Third complementary option – silviculture*

Attempting to better understand the role of silviculture activities in local livelihood portfolios highlights the difficulties in delineating progressive diversification from adaptation strategies. Programme 327 ('Greening the Barren Hills') and Project 661 ('Five Million Hectare Reforestation Programme') are Vietnamese state programmes that began in the early 1990s to incentivise upland farmers to protect forests and plant trees. Both initiatives have been touted as supporting biodiversity conservation, improving environmental and economic conditions, and increasing natural resource production (Ohlsson et al., 2005; McElwee, 2009; 2016). Both have also aimed to 'rehabilitate' areas considered 'wastelands', although much of these lands in Bát Xát District, as elsewhere across the northern Vietnam uplands, have been managed by ethnic minority farmers for generations for timber and NTFP collection, livestock grazing, and rotational swidden farming (McElwee, 2009).

One third (32 per cent) of the ethnic minority households where I conducted interviews have begun cultivating trees as a livelihood activity to earn cash income. Of these, half started planting trees *prior* to cardamom crop failures, with the support of the aforementioned government programmes, in what could be considered a form of progressive diversification. The other half began planting saplings after 2015, in *direct response* to the disastrous

impacts that the first severe winter inflicted on their cardamom crops. This could thus be considered distress diversification, albeit these households still received support from government programmes, blurring the distinction between distress and progressive diversification.[5] At the same time, and to complicate matters further, farmers defied the recommendations of agricultural extension officials to monocrop new tree species, instead planting a mix of trees or intercropping maize or medicinal plants with trees. Some farmers living at high altitudes were promised pear tree saplings by the government, but they had a similar experience to the farmers mentioned above who were promised chickens. The saplings that were delivered either arrived in poor condition or simply never arrived at all. Che, a 20-year-old Hani farmer recalled: 'I didn't receive all the 30 pear trees I was promised, and the ones I did get were nearly dead'. He added bitterly: 'I prepared the land for nothing!' As with the pear trees, sapling health and reliable deliveries were also cited as concerns in relation to government-allocated 'cinnamon' saplings, something which caused a good deal of frustration among farmers.

⁜ *Other complementary options*

Less frequently, Bát Xát farmers also employed other adaptation strategies and livelihood diversification approaches, based upon their available capitals and locales. Just under one-third of the interviewed households decided to experiment with growing medicinal plants for sale, with many noting that they replicated the crop selection patterns of other 'successful' farmers nearby. Others trialled small plots of crops that the KfW8 programme promoted for households near the Bát Xát Nature Reserve. Households also began intensifying their cultivation of crops historically grown for subsistence cultivation. For example, 13 per cent of households who suffered cardamom crop failures intentionally intensified production of hybrid rice and maize to sell for surplus, while seven per cent of households started home-distilling maize-based alcohol for trade.

One-eighth (12 per cent) of households began the small-scale trade of other goods as an adaptation strategy. Household members undertook a

5 Some of the more common tree species farmers were trialing included *cây mỡ* (*Magnolia conifera*), *cây xoan (Melia azedarach), cây sưa (Dalbergia tonkinensis)*, and *cây sa mộc* (*Cunninghamia lanceolata*). Other tree crops that farmers were cultivating included *cây quế (*probably *C. cassia)* and *cây lê tai nung* or 'French pear trees'. At the time of fieldwork, all these species were supported by government initiatives, with the exception of *cây sa mộc,* which had no governmental support.

range of trade activities, from selling everyday goods at local marketplaces, including clothing, medicine, and agricultural inputs, to acting as intermediaries selling NTFPs such as harvested plants, insects, and black cardamom to traders in China. Others engaged in longer-distance, village-city trade. These households sold pears, NTFPs, and rice from Bát Xát District in Lào Cai City and returned to Bát Xát District with clothes, electronic goods, and fresh noodles to sell. Four-fifths of these households began trading in 2015-16, when the most extreme weather events devastated their cardamom harvests, while only one-fifth had engaged in such activities before the mid–2010s.

Since 2015, district-level DARD and KfW8 project staff have encouraged cold-water trout breeding in newly constructed household fishponds (LCPC, 2015; 2016; see also Garber, 2021). While only four per cent of households practised aquaculture, several additional farmers conveyed their interest in constructing fishponds using funds from future black cardamom harvests and wage labour. Finally, hoping to take advantage of the 'spill-over effect' of rapidly increasing domestic tourism in adjacent Sa Pa District, local state officials and those from the BXNR and KfW8 planned the development of numerous new tourist activities. In 2018, only three homestays were open in Y Tý, a town near the Nature Reserve and the main target for tourism in the district. Two of these homestays were owned by Kinh individuals with no agriculture in their livelihood portfolios, while the third was owned by a Hmong farmer, Muas, who opened his homestay in 2013 as a progressive diversification strategy. Four more ethnic minority farmers were preparing to open their own homestays at the time of fieldwork, three of whom selected this livelihood strategy due to dwindling cardamom harvests and from seeing Muas's success with tourism.

TRYING TO BUILD 'MODERN' FARMERS BUT NEGLECTING TRUST

A confusing range of state or state-endorsed projects and policies – including the KfW8 project, geographical indications, and OCOP programmes – were being implemented across these uplands at the time of my fieldwork in 2018 to persuade farmers to engage with specific commodities, preferably as monocrops. These projects and policies were backed by different stakeholders spanning national, provincial, and district-level state authorities, as well as non-governmental organisations (NGOs) and foreign aid agencies.

In this context, ethnic minority farmers with whom I talked were being very prudent in their engagement with such initiatives. While farmers were carefully and selectively trialling some of the new crops being introduced, they were also making sure not to 'put all their eggs in one basket' (*cho tất cả trứng vào một giỏ*) and were also engaging in a range of activities that the government and other 'development' actors were *not* promoting.

Throughout the district, it became increasingly clear that upland ethnic minority farmers were selectively engaging with state or state-endorsed projects and policies despite persistent state efforts to create a very specific model of modern, mono-cropping farmers. Rather than having blind faith in state policy approaches, farmers were deliberately choosing activities that corresponded with their intimate knowledge of local agro-ecological limitations and that drew upon long-standing trust relationships and social capital with kin, neighbours, and trusted trade intermediaries. This allowed households to fashion appropriate livelihood approaches aligned with their cultural understandings and expectations (cf. Turner et al., 2015).

Indeed, farmers in these borderlands maintained clear understandings of local agro-ecological and micro-climatic conditions, with this information passed down through the generations. They put this knowledge to work when deciding which land to trial new species on, and how to adjust the timing of planting, irrigation, and other phases of cultivation accordingly. From the numerous mono-cropping options the government was promoting, farmers were thus 'picking and choosing' the ones they wanted to invest in. While the government promised specific seeds or saplings to a number of households (promises that it then broke), committed to purchasing crops at a set price (at least in theory), and maintained demonstration plots for farmers unfamiliar with the newly introduced crops, farmers were reluctant to blindly jump on board. It has been demonstrated by Ducourtieux et al. (2006) in neighbouring Laos that trust in crops, markets, and intermediaries is vital to sustain newly introduced cash crops. The evidence from Bát Xát District revealed that state actors and NGOs had failed to secure such trust with upland farmers.

In comparison, farmers with cardamom plots continued to rely upon strong trust relations with intermediary traders, who were essential to facilitating households' access to financial capital through the sale of cardamom or loans. Such traders – either minorities or majority Kinh – have understood the importance of engaging directly with cardamom cultivators, gaining

their trust, and forging strong relations. Over the past 15 years, larger-scale Kinh traders have even begun to supply loans of up to VND100,000,000 [USD4,300] to cardamom-cultivating households, to be repaid through cardamom harvests. Kinh cardamom traders whom I interviewed explained the need to be transparent and honest in their pricing and negotiations to ensure a steady flow of cardamom from ethnic minority cultivators (see also Tugault-Lafleur and Turner, 2009; Chapter 5, this collection). These important investments in time (over decades in some cases), of financial capital, and in building trust and social capital were all factors that state officials had not developed or delivered for the new commodities they were promoting in Bát Xát District.

Trust relations and social capital also moderated the degree to which households could gain access to specific adaptation and diversification strategies. For example, individuals seeking off-farm wage labour opportunities, especially in China, drew heavily upon intra-village and family networks. These trust-based networks helped them connect with potential employers and allowed them to access details of the best ways to travel across the border – be it illegally or legally – as well as information regarding the working conditions and financial benefits to be gained.

Cultural responsibilities also informed decisions over whether to engage in wage labour or not. For example, Hani men, as household heads, must be physically present for ancestral worship rituals at home, resulting in more Hani women conducting off-farm wage labour, especially in comparison to Hmong and Yao households. Flexible employers who allowed workers to return home to partake in significant festivals, shamanic rituals, or household on-farm labour became favourites for ethnic minority farmers seeking work across the border.

The state, by contrast, did not take local cultural needs or local knowledge into account. I would argue that if state officials were to better recognise farmers' traditional ecological knowledge and cultural conceptualisations of the environment, government-sponsored livelihood options might receive a more positive response from local farmers. Moreover, instead of a 'fences and fines' approach to the new Natural Reserve, recognition that these minority groups have firm practices of environmental stewardship, including the protection of waterways and watersheds, could allow for a far more flexible – and I would argue positive – co-management approach to the reserve (Corlin, 2004). In sum, current state plans and policies overlook all of these forms of

social capital and trust relations, understandings of cultural responsibilities and knowledge, and flexibility in approaches to providing livelihood options.

CONCLUSION

It is well documented that farmers in the Global South constantly rework livelihoods as their opportunities and bundles of capitals shift, and as they cope with unexpected shocks (Hapke and Ayyankeril, 2004; Forsyth and Michaud, 2011). In the midst of the ongoing agrarian transition in the Vietnamese upland frontier, farmers successfully negotiate a range of possible livelihood options with flexibility and creativity (Li, 2016; Peluso, 2017). Contrary to the view that Vietnamese state discourse perpetuates, upland ethnic minority farmers are anything but static and inflexible (Rambo and Jamieson, 2003), adapting their approaches and drawing on their traditional ecological knowledge as best they can (Champalle and Turner, 2014). However, these farmers face important obstacles as they try to maintain what they deem to be appropriate livelihoods amidst a slew of government-led programmes attempting to push an exogenous agrarian transition.

Despite persistent policy attempts to 'reprogramme' uplanders into 'modern', mono-cropping farmers, ethnic minority farmers in Bát Xát District continue to contest state ideals by carefully diversifying their livelihood portfolios. Not only do livelihoods diverge considerably across villages, they also often differ within mono-ethnic villages. This demonstrates the prudent agency of upland ethnic minority farmers encountering rigid, top-down 'development' schemes being promoted in this frontier region. Using this agency and the livelihood assets they have at hand, farmers selectively adopt (or adapt) state-supported initiatives when they deem them appropriate, and disregard initiatives that they judge to be unreliable or inappropriate (Turner et al., 2015). It is important to also note that for most farmers whom I interviewed, rice or maize remains at the core of the semi-subsistence livelihood portfolios they mobilise to meet their household needs. Farmers are not keen to completely relinquish their customary livelihood strategies to remake themselves into full-fledged cash crop farmers focusing on specific monocrops, as we have seen play out elsewhere in Southeast Asia. In this context, black cardamom continues to remain a favourite cash-generating option for the majority of these farmers. Most farmers even assert that their other livelihood adaptation

or diversification approaches are temporary, and that they intend to return to cultivating black cardamom again as soon as the weather allows.

The analysis above has highlighted that the challenges ethnic minority farmers from Bát Xát District face while trying to maintain black cardamom as part of their livelihood portfolios result from both political and climatic circumstances. It is clear that political interventions by state and state-endorsed actors could support sustainable upland livelihoods far more positively than they are currently, *including* championing sustainable black cardamom cultivation. In northern Laos, Aubertin (2004) has illustrated how black cardamom production, introduced by the state for cash cropping (unlike in Vietnam), has become an officially approved agroforestry approach for opium substitution. Considering cardamom as a positive agroforestry option in Vietnam, and providing support to cardamom cultivators, could certainly help to relieve the concerns of many ethnic minority households. A better understanding among state officials and NGO workers of the specific socio-economic and cultural contexts and needs of communities are also essential (Ducourtieux et al., 2006). However, it remains to be seen whether state officials at different levels of government are willing to entertain such considerations, or invest in developing long-term trust relations, social capital ties, and nuanced appreciations of local cultural approaches. Certainly, such a culturally sensitive approach has not been a common feature of state-society relations in these uplands to date (Turner et al., 2016; Lam, 2020). Farmers are going to have to deal with future extreme weather events which are completely outside local control, and unless the government is willing to 'do development differently', the combination of ecological and political hazards that farmers face is likely to convince ethnic minority cardamom cultivators that their own home-grown livelihood diversification approaches remain the most promising option in this fragrant frontier.

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CHAPTER 4

The taste of cinnamon

Making a specialty product in northern Vietnam

Annuska Derks, Sarah Turner, and Ngô Thúy Hạnh

INTRODUCTION

'Cinnamon is the taste of globalisation', writes Crowther (2018: 67). Its lightweight and compact properties make it a perfect global commodity, connecting distant producers with consumers across the world (ibid.). The spicy-sweet flavour of cinnamon is a prominent ingredient in both sweet and savoury dishes, and its reputed medicinal and antioxidant properties make it a valued component in pharmaceutical and beauty products (Wang et al., 2009). The use and trade of cinnamon go back to antiquity, when it was a treasured spice, with its trade expanding during colonial times, as noted in Chapter 1. Now cinnamon has become part of an agro-food complex geared towards 'producing more at cheaper prices', and between 1970 and 2018 the global production of cinnamon multiplied more than tenfold (Augustin-Jean, 2012: 1; Piyasiri and Wijeratne, 2016; FAO, n.d.).

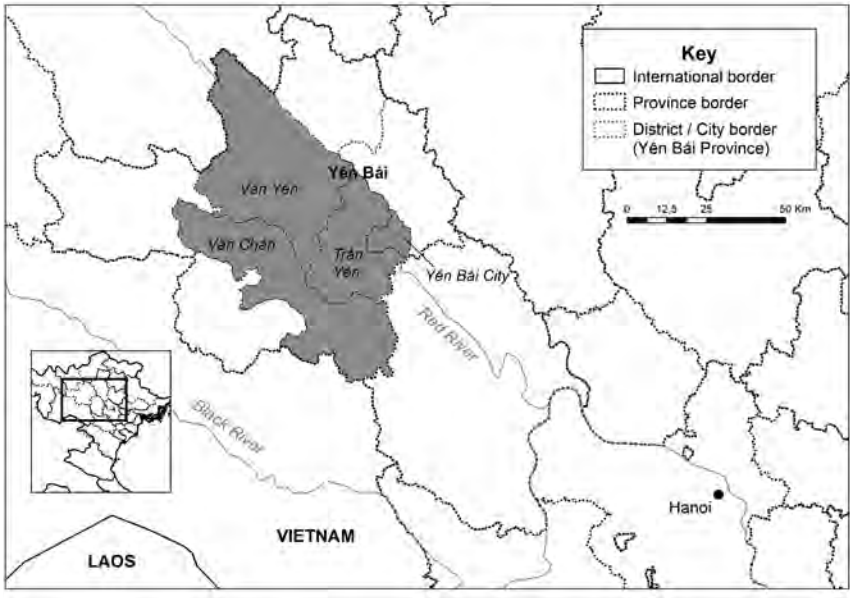
The proliferation of agro-food production and the globalisation of agro-food markets have contributed to an intensification of interconnections across the globe. At the same time, consumers in the Global North are becoming increasingly aware of and concerned about the circumstances of agro-food product cultivation in the Global South. Geographical indications, along with organic and fair-trade certifications, have multiplied in response to consumer desires for high-quality products that are perceived to be environmentally friendly and socially responsible (Goodman, 2004; Taylor, 2005; Lyon, 2006; Elias and Saussey, 2013). However, given the complex nature of agro-food commodity chains, distinguishing between products of different value categories is not a straightforward process (West, 2010; le Polain de Waroux and Lambin, 2013). The questions of why products

get categorised in specific ways, who chooses such labels, and how these decisions impact livelihoods in the Global South require an analysis of the interactions within and among commodity chain actors and nodes.

In this chapter, we explore the contested ways by which 'Vietnamese cinnamon' is categorised and how value is created along its commodity chains, focusing on the spice that originates from the country's northern uplands. We trace the routes by which this 'cinnamon' (*quế* in Vietnamese) moves from cultivators in the hills of Vietnam to consumers in the Global North, investigating the actors involved in its production, processing, transport, marketing, and retail. Along the way, we aim to uncover the often contradictory ways in which different actors define 'Vietnamese cinnamon' and endow it with value. We pay particular attention to how these processes affect ethnic minority farmers in upland Vietnam, a region where previous scholarship has documented increasing global market integration of agro-food commodities including coffee, cassava, and black cardamom (Grant, 2014; Turner et al., 2015; To et al., 2016).

As became clear during the course of our research, cinnamon is a particularly difficult agro-food commodity to define and qualify, despite its long history and its ubiquity as a global commodity. It turns out that much of what is sold in supermarkets around the world as cinnamon is what some refer to as 'bastard cinnamon', or rather, varieties of cassia (Chennault, 2006: 156; see also Senanyake and Wijsekera, 2004; Haw, 2017). But even cassia is 'not just cassia', our informants insisted. While controversy surrounds the categorisation of the species grown in Vietnam's northern uplands, actors ranging from cultivators, state agencies, and development organisations to overseas retailers insist that particular (often conflicting) properties set apart the Vietnam-sourced spice as a high-quality 'cinnamon'.

Drawing on scholarship regarding tropical commodity chains and anthropological debates over the creation of value and quality, in this chapter we analyse the routes and controversies of 'Vietnamese cinnamon'. Through ethnographic fieldwork and an in-depth content analysis, we first attempt to decipher the taxonomies of 'cinnamon' – somewhat of a tall order given the contradictions we find both within the scientific literature and among our informants. We then trace this spice as it works its way from Yên Bái Province – Vietnam's top 'cinnamon' producing province – to consumers across the world. Along the way, we focus on how actors at different nodes along these commodity chains generate and enhance value through naming and



Map 4.1. Yên Bái Province, Vietnam, with key 'cinnamon' cultivation districts.

marketing practices. We also show how the 'cinnamon' commodity chains originating in upland Vietnam are built on asymmetric power relations vis-à-vis ethnicity, gender, and politics, and how value – far from being simply an inherent property of the spice – emerges from portrayals of its authenticity, of the exoticised cultivators of the spice, and of social responsibility (cf. West, 2010; 2012, regarding specialty coffee).

We completed ethnographic fieldwork at multiple sites throughout Yên Bái Province, Vietnam from 2014 to 2018. In the province's three top cultivation districts of Trấn Yên, Văn Chấn, and Văn Yên (see Map 4.1.), we conducted interviews with 32 individuals involved in 'cinnamon' cultivation, oil distillation, and wholesaling, as well as with five officials from local People's Committees, a land registry department, and the provincial Department of Agriculture and Rural Development. In Hanoi, we completed conversational interviews with 35 wholesale and neighbourhood market stall vendors, and 35 consumers. Further research was conducted via online or in-person interviews with two agriculture researchers in Hanoi, an NGO expert in spice commodity chains, a botanist, and a spice export company manager from 2014 to 2021. In addition, we undertook a survey of 48 online retailers claiming to sell Vietnam-sourced 'cinnamon' – 18 in the US, 15 in China, ten

in Europe, and five in Canada.[1] At other end points of the commodity chain, including other Asian locales (Beijing, Shanghai, Bangkok, Hong Kong) and global cities farther afield (Auckland, Montreal, New York, Zurich), we conducted 23 conversational interviews with 'cinnamon' retailers.

VALUE CREATION ALONG COMMODITY CHAINS

The argument that commodity chains are built on unequal power relations is nothing new. Classical commodity chain studies that trace a good from its start to end nodes have revealed the inequalities in the types of labour expended and profits reaped by different actors along these chains (Hopkins and Wallerstein, 1986; Gereffi and Korzeniewicz, 1994; Bair, 2009; Bowen, 2010). That is also why commodity chain frameworks have appealed to researchers with an interest in battling inequalities and supporting the position of less economically powerful countries, communities, or individual actors (Forster, 2006; Neimark et al., 2016).

However, frameworks such as global commodity chains (Gereffi and Korzeniewicz, 1994) and global value chains (Gereffi et al., 2005) have also been criticised for their linear, deterministic interpretations (Forster, 2006; Bair, 2009); for obscuring the ways in which actors' values and interpretations may diverge at different nodes along the chains (Long and Villarreal, 1998; Hughes, 2001); and for disregarding the interplay of factors like gender, ethnicity, and class influencing social relations between actors (Leslie and Reimer, 1999). In response to these critiques, a 'systems of provision' approach has sought to illuminate the connections between economic actors by concentrating on the material and cultural practices that govern the creation, distribution, and consumption of commodities (Fine and Leopold, 1993; Narotzky, 2005). This framework focuses on how goods like agro-food products move through space, how the actors involved assume their roles and power relations, and how the livelihood trajectories of cultivators at initial stages of commodity chains can be affected by socio-economic and political forces (Leslie and Reimer, 1999; Hughes, 2001; Bush, 2004).

This 'systems of provision' approach is particularly relevant for case studies of tropical agro-commodity chains that seek to reveal historical and

1 These were completed in 2017, three years earlier than the searches for Chapter 7. Different online sites were the most active at the two different times, however the advertising approaches were very similar across both time periods.

ongoing structural inequalities. These studies typically involve the flow of goods from the Global South to the Global North, as crops uniquely adapted to specific ecological niches are exploited and processed in systems that often have colonial roots. This flow of goods is not only determined by interactions among producers, traders, and consumers, but also by actors such as state officials and NGOs who influence governance regimes (Gibbon, 2001; Talbot, 2002; 2009).

In such a context, it is particularly important to pay attention to what Callon et al. (2002) call the 'economy of qualities', or the ways by which different actors qualify goods, assigning value to them in relation to other goods. Forster (2006: 290) explains this as 'the construction of qualitative value – value produced in a system of differences'. In addition, commodities can be seen as having 'careers' (Appadurai, 1986), such that yesterday's 'bastard spice' may be today's high-value export. A commodity's value thus emerges through its movement as well as through the social relations, material networks, and ideological connections between producers and consumers (Forster, 2006). This commodity value is therefore defined not only in Marxist economic and labour terms but also through the existence of 'meaningful difference' within some greater system of categories (Graeber, 2001). For example, actors along a commodity chain, from producers to trade managers, retailers, and consumers, are constantly creating and negotiating qualitative standards, tastes, preferences, and images of authenticity (Forster, 2006). Commodities can be sorted into value classes that cater to different markets, creating a 'proliferation of niches' based on diversity (Tsing, 2013: 35). Though factors such as culture, gender, ethnicity, and geographic origin tend to be 'banished from the economic', the profitability of niches in global commodity chains may rely on marketing these very aspects of their production (ibid.: 158).

Ethical agro-food networks, such as registration systems for fair-trade and organic goods, provide relevant examples of how value can be created through such categorisations (Bidwell et al., 2018a). Rather than participating as usual in a market of undifferentiated goods with competition based on price, the products in these ethical agro-food networks are 'de-commodified'. This may entail supplying consumers with information about producers or the ecological features of a good, which are purportedly outside the realm of the economic, but nevertheless serves to add value by differentiating the good on the basis of quality and identity (ibid.). Hence, 'de-commod-

ification' should not be understood as a process by which products fully move out of their usual commodity sphere (Kopytoff, 1986), but rather as a process that involves the conscious use of non-economic factors to enhance value. One goal of de-commodifying a good – setting it apart in terms of quality, identity, or geography to add value – is to shield producers from price volatility (ibid.). In our case study of 'Vietnamese cinnamon', we document strategies of de-commodification that are often inconsistent and even contradictory – and that in the end fail to benefit actors at the starting nodes of commodity chains like farmers and local traders.

TENUOUS TAXONOMIES

> It would not be an exaggeration to say that the cinnamon from Yên Bái Province is coveted. Known as the 'champagne of cinnamon', it contains a high level of essential oils, giving it a more intense flavor (Sahale Snacks, n.d.).

Among some experts, 'Vietnamese cinnamon' has a positive reputation for its particularly strong, spicy, and bittersweet flavour (Madan and Kannan, 2004). Indeed, in the quote above, the US-based nut and dried fruit company Sahale Snacks praises cinnamon from Yên Bái Province for its unique qualities. The question, however, is whether this is just advertising, or if it actually reflects inherent quality differences between 'Vietnamese cinnamon' and other varieties.

Both cinnamon and cassia varieties originate from the dried bark of evergreen trees of the family *Lauraceae,* genus *Cinnamomum*, whose native range stretches across tropical continental Asia and insular Southeast Asia (de Guzman and Siemonsma, 1999; Weiss, 1997). Among the 150 to 250 species classified within the genus *Cinnamomum*, only a few are utilised commercially. According to International Organisation for Standardisation (ISO) criteria, Ceylon cinnamon, or 'true cinnamon' (*Cinnamomum zeylanicum Blume*; ISO 6539), also known as *Cinnamomum verum*, should be distinguished from three other species, whose common names confusingly include cassia (ISO 6538). These three species are: Chinese cassia (*Cinnamomum cassia* (Nees) ex Blume); Indonesian cassia (*Cinnamomum burmanni* C.G. Nees); and Vietnamese cassia (*Cinnamomum loureirii* Nees) (Statista, 2018; Workman, n.d.).[2]

2 In this chapter, when we refer to cassia (no italics), we are referring to the common name that has been given to cluster together Chinese cassia (*Cinnamomum cassia* (Nees) ex Blume),

These different species of *Cinnamomum* are considered to be of different qualities that correspondingly demand different prices. The bark and oil of Ceylon cinnamon is considered to be the highest quality, especially when sourced from Sri Lanka (Senanayake and Wijesekera, 2004; CBI, 2018; Piyasiri and Wijeratne, 2016). This species is the most widely available to consumers in Europe and Latin America and can demand a value of up to ten times that of the three common cassia varieties. US and Canadian consumers, on the other hand, usually find one of the cheaper cassia varieties on their shelves (Feldman and Bauer, 2008).

Compared to the various types of cassia, Ceylon cinnamon has a lighter colour and a milder, sweeter taste, while cassia is stronger and spicier. Ceylon cinnamon sticks consist of several thin layers of dried bark, while cassia sticks comprise one thick layer of rolled bark. These distinctions are linked to differences in chemical composition, with Ceylon cinnamon boasting a wider range of aromatic compounds and less coumarin (an aromatic organic chemical compound) (ISO, 1997; Senanayake and Wijesekera, 2004; Wang et al., 2013). Due to the fact that coumarin is now recognised as potentially hazardous in high quantities, the value of cassia has fallen even further.[3]

Nonetheless, several actors in the spice trade contest these supposed quality differences. For instance, the Canada-based South China Seas Trading Company (n.d.) praises fine and fragrant 'Saigon cinnamon' and argues that conceptions of Ceylon cinnamon as superior to cassia varieties are 'more about colonial politics than quality'. Moreover, since cinnamon and cassia varieties are mostly consumed in powder form, the subtle differences easily get lost. Naming practices do not help matters either. In the US, both cinnamon and these different cassia can officially be referred to as cinnamon, and the same is true for the common designations used in European languages, which are derived from the root words of cinnamon, such as *canela/kaneel* or *cimet/Zimt* (Ravindran and Nirmal Babu, 2004; Feldman and Bauer, 2008). Hence, most consumers in the Global North

Indonesian cassia (*Cinnamomum burmanni* C.G. Nees); and Vietnamese cassia (*Cinnamomum loureirii* Nees). When we refer to *C. cassia* (italicised), we are talking about that specific species.

3 EU regulations, for instance, have set limits on coumarin in ready-to-eat foods, and endorse Ceylon cinnamon over cassia varieties (European Union, 2006; Bundesamt für Risikobewertung, 2012). The Food Safety and Standards Authority of India (FSSAI) also officially distinguishes between Ceylon cinnamon and cassia varieties on the basis of coumarin levels (FSSAI, 2017).

remain unaware of the finer distinctions between *Cinnamomum verum*, and the three most commonly recognised varieties of cassia.

Adding to the confusion, global trade statistics count *Cinnamomum verum* and the cassia varieties together. This resulted in Sri Lanka, still the chief producer of Ceylon cinnamon, seeing its global share of production fall in the early 1980s with the expansion of the cultivation of cassia varieties by Indonesia and China. After Vietnam entered the global market in the wake of the Đổi Mới economic reforms in the mid-1980s, the country's 'cinnamon' cultivation skyrocketed (Madan and Kannan, 2004). Vietnam's production increased from 3,200 to over 35,000 metric tonnes from 1990 to 2016, making Vietnam the world's third largest exporter in global statistics after Indonesia and China, with 15 per cent of global cinnamon/cassia exports (Piyasiri and Wijeratne, 2016; FAO, n.d.).

While Vietnam has thus become a major player in the global cinnamon/cassia trade, there exists considerable confusion about what is actually grown in the country. The spice from Vietnam is known by many names, including Vietnamese, Saigon, Annam, or Tonkin cassia, as well as *Cannelle de Saïgon* or Saigon cinnamon (Weiss, 1997). The ISO (1997) recognises Vietnamese cassia (or *Cinnamomum loureirii* Nees)[4] as a distinct variety, and bases this classification on the higher concentration of volatile oils in comparison to Chinese or Indonesian cassia. However, botanists are increasingly uncertain as to whether *C. loureirii* is actually a separate species from *C. cassia* (also known as Chinese cassia). Ito et al. (2004) have surveyed cassia varieties within Vietnam and have reported significant differences in oil content and taste between trees located in the central and northern parts of the country. While the authors suggest that these could comprise different species, with *C. loureirii* in central Vietnam and *C. cassia* in northern Vietnam, they note that more taxonomic tests are necessary to determine whether the species' origins are really different. Yet, as the lead author of that article, Michiho Ito, has suggested in private correspondence, even with further tests it might not be possible to clearly determine whether a species distinction exists, since the chemical properties of cassia varieties can vary based on many factors, including climatic and soil differences.

4 The botanical name of Vietnamese cassia recalls João de Loureiro, the Portuguese Jesuit missionary and botanist who first described the species during an 18th century voyage to Cochinchina (today's southern Vietnam) (Weiss, 1997; Nguyen, 2004).

Other scholars seem to doubt whether *C. loureirii* exists at all. Leela (2008) does not mention the variety in his chemical analysis of cinnamon and cassia, but states that Chinese cassia comes from both China and Vietnam. Ravindran and Nirmal Babu (2004) report that the native range of Chinese cassia extends to both China and Vietnam, while asserting that, although *C. loureirii* exists, it is so rare that it 'cannot be the source of Vietnam cassia' (ibid.: 10). Nguyen (2004: 158) also states that Vietnamese cassia is not *C. loureirii,* detailing that 'based on 20 years of study on collection and classification of specimens of *Cinnamonum* from the north to the south of Vietnam, we reached the conclusion that Vietnamese cassia is nothing but *C. cassia*' or Chinese cassia. 'Vietnamese cassia' and 'Saigon cassia' are thus, he argues, labels introduced by the government, and are not grounded in regional differentiation according to botanical criteria or grade quality.[5]

This taxonomic inquiry casts doubt on how unique Vietnamese cassia truly is. Though retailers exalt Vietnamese cassia as the world's best and the ISO categorises *C. loureirii* as a distinct species, the academic literature challenges these assumptions. While leaving us in a state of mild confusion, this leads us to our next step – heading to plantations in northern Vietnam to ask: how do local farmers and traders categorise the spice they grow and sell, and why? And how do these categorisations relate to how value is assigned to this spice?

VIETNAM'S KEY 'CINNAMON' COMMODITY CHAINS

'Cinnamon' production in Vietnam is principally located in the northern provinces of Yên Bái and Thanh Hóa and in Quảng Nam Province in central Vietnam. Yên Bái Province, our study site in the northern uplands, produces by far the most 'cinnamon' in the country, with cultivation concentrated in the districts of Trấn Yên, Văn Chấn, and Văn Yên (see Map 4.1.; Ngoc Thao, 2014). The cultivation of 'cinnamon' in Yên Bái stretches back hundreds of years. The spice was offered as tribute to imperial Chinese feudal overlords, and then during French colonial rule (1887–1954) it was valued as an export

5 The designation 'Saigon cinnamon' is particularly ironic, because no cassia varieties are grown in or around Saigon (now Ho Chi Minh City). One official whom we interviewed mused that the name 'Saigon cinnamon' might be derived from the city's status as an important port and that perhaps exporters hence labelled the spice 'Saigon cinnamon' because it came through Saigon, regardless of where it was grown.

crop (Gouvernement Général de l'Indo-Chine, 1901; Miller, 1947; Nguyen, 2004). After Vietnam gained independence and entered the subsidy era (*thời bao cấp*), only forestry officials were allowed to cultivate and trade 'cinnamon'. One ethnic minority Yao (Dao) farmer recalled: 'Only foresters had the right to grow or transfer [use-rights of] cinnamon trees because cinnamon cultivation was illegal, like opium is now'.[6] This changed after Vietnam's Đổi Mới economic reforms from the mid-1980s, and in particular with the 1991 Law on Forest Protection and Development and the revised Land Law of 1993 that granted usage rights. Fifty-year land-use certificates, commonly known as Red Books, provided limited rights over certain plots of forest to individuals or groups of households, meaning that cultivators were able to increase their 'cinnamon' production (Pettenella, 2001).

The expansion of 'cinnamon' cultivation that then occurred was not only related to land access and market opportunities, but was also due to a shift in the Vietnamese government's forestry priorities from exploitation to restoration in the 1990s. State programmes that aimed to reforest 'bare hills', combat swidden agriculture, and reduce poverty involved subsidising tree seedlings and compensating households that planted trees (McElwee, 2016). Many Yên Bái Province farmers reported that they began growing 'cinnamon' on their hills during this period. Though the government initially distributed seedlings of other trees like pine and Bodhi (*ficus religiosa*), according to locals these 'only make green and have little economic value', unlike 'cinnamon'. As a result, the number of Yên Bái Province farmers producing 'cinnamon' has steadily expanded. In 2016, the People's Committee of Yên Bái Province planned to plant almost 20,000 hectares of new 'cinnamon' trees in order to reach a total area of 76,000 hectares by 2020 (Yên Bái Province People's Committee, 2016). Văn Yên District – promoted by local officials as the 'Kingdom of Cinnamon' – already has more than 40,000 hectares planted with 'cinnamon' (Ngoc Thao, 2014; Yên Bái Province People's Committee, 2016).

Commencing at the nurseries

The trees grown in Yên Bái Province's three main 'cinnamon'-producing districts often start as seedlings in local nurseries. Mr Tuan, who operates four such nurseries, each with about two million seedlings, was buying his

6 Local informants predominantly used *quế* in interviews, and in quotes we translate this broadly to cinnamon.

seeds from farmers for VND280,000 [USD 12] per kilogramme in 2017.[7] He germinates and tends to the seeds for nine months before they are ready for transplanting. Some cultivators, however, have expressed suspicion regarding the quality of seedlings sourced from local nurseries. According to one Yao farmer who prefers to germinate seedlings from the seeds of his own mature trees, nurseries sometimes mix 'Chinese and Vietnamese varieties', meaning that farmers risk ending up with 'an inferior Chinese type'. When we asked Mr Tuan, the nursery operator, about these varieties, he rationalised that two types of cassia are grown in Yên Bái: local *Cinnamomum cassia*, which he is adamant originates from the province and is the variety he grows, and what he calls '*Cinnamomum cassia* China' (*quế Tầu*, or Chinese 'cinnamon'), which comprises a different variety. He added that the boom in this spice farming since the 1990s resulted in the increased importation of Chinese seeds, which continue to be much cheaper than those from Vietnam. Considering that, as just discussed, all *Cinnamomum cassia* is known in botanical circles as 'Chinese cassia', this distinction only adds to the confusing nomenclature of the spice – a point we return to later.

Growing 'cinnamon'

Most 'cinnamon' farmers in Yên Bái Province belong to the Yao or Tày ethnic minorities. Regardless of ethnicity, local farmers tend to pursue composite livelihoods that usually involve growing rice for home consumption, harvesting complementary cash crops like bamboo, corn, tea, and mulberry leaves, and raising livestock like pigs and chickens. However, of these cash crop options only 'cinnamon makes you rich' (*quế làm giàu*), according to one commune chairman, who proudly pointed to new houses being constructed in his village thanks to 'cinnamon money'.

Farmers grow 'cinnamon' on the hill slopes surrounding their villages. They plant the seedlings about one metre apart at a density of about 10,000 per hectare and intercrop them with cassava to provide shade and protection from weeds. After three years, the young trees are thinned to 6,000 per hectare, with farmers selling the harvested bark, leaves, and timber. Trees are then pruned twice a year for another eight to ten years to collect leaves and branches for sale. 'Cinnamon' trees are finally completely felled for their bark,

7 Currency conversions are based on the time of interviews throughout this book.

Figure 4.1. 'Cinnamon' plantations in Yên Bái Province, Vietnam. **Colour** p. 149.

timber, and leaves. Non-household labour is often required at these harvesting stages, with workers paid according to the quantities of leaves, branches, or bark collected. The bark is carefully peeled from the stem of the tree and usually sun-dried in hot, dry conditions for two days, although it can also be dried over a fire. It is sometimes also sprinkled with sulphur, which farmers and traders said prevents mould and enhances the colour of the spice.

All the farmers whom we interviewed highlighted the multi-functionality of the crop, with some noting that they 'can sell everything'. The leaves and small branches can be processed into oil or incense, while the timber can be used in construction. However, the most valuable element is the bark, and the thicker the bark, the more costly the spice. Indeed, most of the farmers we interviewed expressed little interest in our questions about species or varieties, instead emphasising the importance of the thickness of the bark, which directly correlated to local grading standards and pricing, as outlined below.

Trade intermediaries in Yên Bái

Before 'cinnamon' grown in Yên Bái reaches the market, it usually goes through the hands of several intermediaries. Farmers commonly sell their 'cinnamon' to local traders with whom they have built trust-based relationships over the years. These relationships enable traders to maintain loyal

Table 4.1. Grading criteria for 'cinnamon' harvested in Yên Bái Province, Vietnam.

Grades	Criteria	Prices traders paid farmers, 2016–2017 (VND/kg)
Grade A	Top quality. Only local 'cinnamon' (not Chinese). Bark 7 mm thick or more; trees need to be over 10 years old.	30,000–36,000
Grades B1–D	*Local or Chinese 'cinnamon' – traders do not seem to mind; whole sticks, broken, or split*	
Grade B1	5–7 mm bark	30,000
Grade B2	3–5 mm bark	19,000
Grade C1	2.5–3 mm bark	16,500–18,000
Grades C2-4	1 mm to 2.5 mm	16,000 and less
Grade C5	1 mm bark or less	16,000 and less
Grade D	Poor quality, mouldy, irregular, etc.	16,000 and less

farmer relationships and hence assure a steady supply of 'cinnamon'. At the same time, farmers trust the traders to provide them with a fair price and can request cash advances for their harvests when necessary. When 'cinnamon' changes hands from cultivators to such traders, the dried bark is assigned a quality ranging from A to D, which determines the price the farmers can gain (see Table 4.1.). The best quality, or Grade A 'cinnamon', has the thickest bark and is usually identified as being only 'local cinnamon' or 'Vietnam cinnamon'. The other grades can consist of both local and/or Chinese 'cinnamon'. While Grade A is typically exported to Western countries, Grade B and C 'cinnamon' tend to be exported to several Asian locations, with Grade D 'cinnamon' usually being sent to China for further processing. Although Grade A bark can be sold for higher prices and is thus potentially more profitable for local intermediaries, the precise expectations of exporters and overseas importers make its trade a more challenging endeavour. Most local intermediaries we met therefore specialize in the trade of lower quality bark, which involves smaller profits, but also less risk.

Most intermediaries sell the 'cinnamon' they collect from local farmers to spice wholesalers in Hanoi and Bắc Ninh Province, who then export the 'cinnamon' more widely, although some large-scale intermediaries in Yên Bái Province also maintain direct links with foreign customers. One

trader explained: 'We sell to India. They come to inspect the goods, and on approval we truck it to Bắc Ninh [to the wholesaler], or pack it in containers for transport to Hải Phòng'. Large-scale intermediaries also reported that foreign importers from South Korea, Japan, and the US come to visit them, not only to negotiate about price and quality but also to visit 'cinnamon' plantations to inspect trees and meet the cultivators. These face-to-face meetings are crucial to the ability of local traders and state officials to push a particular narrative regarding 'Vietnamese 'cinnamon, discussed shortly.

Large-scale 'cinnamon' oil refiners

After being sorted by local intermediaries, dried 'cinnamon' sticks and powder pass along their own commodity chains, while bark, twigs, and leaves are processed into 'cinnamon' oil. The distillation process for this oil is fairly simple, with all the 'cinnamon' material placed into vats with water and heated over wood fires. The first large-scale 'cinnamon' oil distilleries in Yên Bái Province were built in 2014, boosting what was previously small-scale, farm-based production. 'Cinnamon' oil is now a significant output, especially for export to China, and by 2018 the province boasted four large factories distilling 'cinnamon' oil along with several smaller ones. Though the end product, a mix of about 60 per cent oil with water, is not a true essential oil, the high demand from Chinese buyers, who usually buy via exporters in Hanoi or borderland intermediaries in Lào Cai and Lạng Sơn Provinces, continue to drive production.

'Cinnamon' wholesalers and exporters

A relatively small amount of Yên Bái 'cinnamon' is transported by local intermediaries to Đồng Xuân wholesale market in Hanoi, where it is purchased by vendors from smaller city markets or larger traders based elsewhere in Vietnam (Figure 4.2.). One local expert explained that the 'cinnamon' sold on the domestic market is often 'bad quality with a low price; the good quality cinnamon can't be sold to Vietnamese people as we can't afford to buy it'. At local markets, distinctions are mostly made between the different forms and degrees of processing, rather than between particular species or varieties. For instance, thicker peeled sticks that can be marketed as export quality 'cinnamon' (*quế xuất khẩu*) were being sold for VND150,000 [USD6.60]

Figure 4.2. 'Cinnamon' at Đồng Xuân market, Hanoi, Vietnam. **Colour** p. 150.

per kilogramme in 2017, whereas the rough, unpeeled, or broken 'cinnamon' could only sell for VND65,000 per kilogramme – although this is still four to five times more than what farmers received (Table 4.1.). Đồng Xuân traders seemed fairly ill-informed about the varieties and origins of the spices they sold. Most knew that the spice was grown somewhere in mountain forests (*núi rừng*), but they seldom knew where in particular, and only a handful mentioned Yên Bái Province as a particularly high-quality source.

Most 'cinnamon' cultivated in Vietnam leaves the country for China, the spice's largest market, with important amounts also being shipped to India, the US, Japan, Taiwan, and South Korea. Like farmers and local traders, wholesalers make distinctions between different quality grades of 'cinnamon' rather than specifying any particular species. The spice is also sorted by whether it is whole, in sticks, split, broken, or powdered, and occasionally by whether it is labelled as organic or not. Top-quality 'cinnamon' is often traded via Singapore, where it is further processed, packaged, and branded on the way to international buyers.

Hence, while local farmers make a distinction between different varieties of the spice, traders and exporters seem far less interested in the origins and species grown in Vietnam, determining prices on the basis of other categorisations, most notably the thickness of the bark. As we have seen, the different actors

along the commodity chains, along with botanists, media outlets, and official websites, seem to differ in their understandings of the type and quality of 'cinnamon' that is grown in Vietnam, the taxonomical differences between so-called Chinese and Vietnamese 'cinnamon', and the relevance of these differences for prices. Notwithstanding these confusions and controversies, most actors within Vietnam are strikingly united in their description of the Yên Bái sourced spice as superior quality 'Vietnamese cinnamon'. Our investigation therefore turns to how 'Vietnamese cinnamon' has emerged as a distinctive product.

THE CREATION OF 'VIETNAMESE CINNAMON'

The question of the distinctiveness of 'Vietnamese cinnamon' may appear tangential considering the fact that much of the product grown in Vietnam is transported to China, where it gets mixed with Chinese-sourced cassia varieties regardless of grade. According to one intermediary, it is then re-exported 'without mentioning the source of cinnamon'. Another portion of Vietnam-grown 'cinnamon' transits through the regional wholesale hub of Singapore, where it may be mixed and blended with cassia varieties from other regional producers, such as those from Indonesia, and then re-exported as 'cinnamon' (Madan and Kannan, 2004). The way that all sorts of cassia varieties are routinely combined regardless of origin and grade echoes Tsing's (2013: 35) findings regarding how *matsutake* mushrooms lose any specific regional information regarding their place of origin when exported from Yunnan to Japan, as the privilege of regional labelling is 'reserved for Japan-grown food'. This indistinctiveness of origins is, however, at odds with Vietnamese state campaigns to market local 'cinnamon' as a higher-value product.

Introducing a 'geographical indication'

One Mường farmer, Mr Anh, was adamant about the differences between local and Chinese 'cinnamon', explaining that: 'Chinese cinnamon doesn't taste as sweet and hot as Vietnamese cinnamon. The tree is shorter, and the bark isn't as good. The only advantage is that after drying the weight doesn't change much.' Like Mr Tuan, the aforementioned nursery owner, Mr Anh distinguished between *quế Tầu* (Chinese cinnamon) and *quế bản địa* (local cinnamon). He also suggested that farmers in the area used to grow 'Chinese cinnamon', but that they have nearly all switched to the 'local' variety.

While these ideas of taxonomy clearly conflict with the scientific categorisations discussed above, this supposed shift undertaken by Yên Bái Province farmers towards favouring 'local cinnamon' has been actively promoted by the Vietnamese state and international development organisations. One Dutch development organisation in particular worked with local government officials to market 'local cinnamon' during a three-year project involving subsidised 'local' seedlings, drying ovens, and various branding strategies. Despite the effort such individuals put into cultivating and marketing 'local cinnamon', the term proves nearly impossible to define. According to one former project adviser with experience in quality control and the organic certification of 'local Yên Bái cinnamon', there is actually no scientific evidence regarding any of the presumed differences between varieties. In fact, he explained, a great deal of cross-border intermixing had occurred between Vietnamese and Chinese trees. Such ambiguity with regard to the actual plant involved did not, however, prevent the adviser from encouraging farmers to cultivate 'local cinnamon' in order to 'maintain good quality as well as preserve its originality for traceability'.

Geographical indication (GI) certification systems rely heavily on the ability to define and convey 'the geographical origin, as well as the cultural and historical identity, of an agricultural product' (Bowen, 2010: 210). Because they enable global consumers to create associations between quality, place, and taste, GIs have gained attention for their potential to enhance the profits of farmers in the Global South (Bowen, 2010; UNCTAD, 2015; Pick et al., 2017). The Vietnamese state has certainly taken note of this, launching a top-down management framework and strong public policies for advancing GIs (Pick et al., 2017), as noted in Chapter 2. The Văn Yên District People's Committee, supported by the *Agence française de développement* (AFD) and the Food and Agricultural Organization of the United Nations (FAO), accordingly registered the GI for Văn Yên cinnamon in 2010 (FAO, 2016; Pick et al., 2017). In a national newspaper article, the People's Committee Vice-Chairman explained that the GI registration helped to 'increase the value of the local specialty' as well as maintain and conserve 'genetic resources and strengthen the promotion of Văn Yên cinnamon products to domestic and international markets in a sustainable manner' (Nguyen, 2014).[8]

8 Other 'cinnamon' varieties in Vietnam are also registered as GI products. 'Trà My cinnamon' (Quảng Nam Province, central Vietnam) was registered in 2011 and

On the ground, however, the farmers we spoke to were less enthusiastic about the GI certification. The GI initially pertained to only about 20,000 hectares in eight of Văn Yên District's 27 communes (Cục Sở hữu trí tuệ, n.d.; Nguyen, 2014). One farmer, Mr Cuong, complained that since he used seedlings obtained in Văn Yên District, his 'cinnamon' – planted in a neighbouring district – was essentially identical, and although not technically covered by the GI, he planned to label his product as certified anyway. The vast majority of farmers and traders, however, had never heard of the GI when we asked. They also seemed uninterested in the concept, stating that current quality measures and their trade relations were sufficient. It is therefore questionable whether this GI will facilitate tangible improvements to local livelihoods.

These findings regarding Yên Bái 'cinnamon' echo what we found regarding the introduction of a GI label for star anise from Lạng Sơn in 2007 (see Chapter 2). Farmers there seemed similarly uninformed of the star anise GI, while overseas star anise traders preferred not to buy GI-certified spice from local export companies when they wanted to alter or hide its origins to keep their supply sources secret (see also Pick et al., 2017: 327). Likewise, when we searched the websites of major 'cinnamon' export companies in Vietnam, we found no mention of the GI for Văn Yên 'cinnamon'. We therefore question the extent to which these GI initiatives, driven by outside actors like state and development agencies, truly bolster the economic position of Vietnamese spice producers on the global market. In the words of one foreign spice trader:

> The GI is not relevant at all. The initiatives are entirely done by … outsiders in NGOs. They stop in for a few months and meetings, leave their imprint and move on. I've seen five cycles of NGOs work on this now, and heard of two more. … It may have made some foreigners feel good, but it never increased the value or contributed to anything but market chaos and skimming … European and UN funds for houses and vehicles.

In defence of some of the NGO projects in Yên Bái Province, a few farmers we interviewed expressed appreciation of features such as the 'cinnamon' drying ovens that these organisations had introduced. In addition, as exemplified by the statements of Mr Anh and Mr Cuong, 'cinnamon' producers are not just 'passive subjects of discourses', but indeed people who 'adopt and

'Thường Xuân cimnnamon' (Thanh Hóa Province, north coastal Vietnam) was noted to be in the process of being registered as of 2017 (Pick et al., 2017: 315-316), but we could not find evidence that this had been successful by 2021.

adapt these discourses … by laying claim to greater decrees of authenticity or higher ecological standards' (Bidwell et al., 2018b: 7). However, the GI designation for Yên Bái 'cinnamon' seems to have been somewhat of a marketing failure to date. What has proven far more successful in branding local 'cinnamon' is an appeal to historicised and exoticised images of places and producers.

Creating a speciality product

Although the main motivation for a GI is the concept that a good can be assigned some essential value based on its geographic origin, consumers may care more about a marketed image and branding than the location of cultivation (Hull, 2016). The promotion of 'Vietnamese cinnamon' is an especially clear – and indeed somewhat absurd – case. One French spice company markets 'cannelle de Saïgon' as a rare spice with a strong flavour, native to the 'province of Saigon' (Ducros, n.d.), despite the fact that no Vietnamese province has been named Saigon since 1976, nor is 'cinnamon' cultivated in that area. Sahale Snacks, the company that promotes Yên Bái's spice as the 'champagne of cinnamon', claims on its website that 'unexploded bombs lie on the same land where cinnamon forests like to grow [… but the] good news is that … a Seattle-based humanitarian organization [is] working in central Vietnam to help clear the farmlands'. Yên Bái, however, is not in central Vietnam, and it is unlikely that the areas where their 'carefully sourced' 'cinnamon' grows were heavily bombed. The purpose of this image of a (fictional) war-torn locale is to conjure remoteness, danger, and inaccessibility, thereby enhancing the distinctiveness of this company's products. In a promotional video, the CEO of another large US-based organic produce wholesaler describes travelling 'almost to the end of the world, literally' to visit Vietnam's major 'cinnamon' growing region and provide aid for children to attend school. In the opening scene, viewers are told that they can 'make a difference with Vietnamese cinnamon', which is now back on the international market after an absence of 'more than 20 years due to the Vietnam War' (Frontier Co-op., n.d.). A suggestion is thus made that buying 'Vietnamese cinnamon' is also an act of humanitarianism. These retailers' marketing of Vietnamese 'cinnamon' utilises stylised imaginings of place that emphasise remoteness and recall the colonial era and the Vietnam War, a theme discussed further in Chapter 7.

The way cultivators are portrayed by Vietnamese state news outlets similarly highlights the spice's distinctiveness, albeit through other images. Although most 'cinnamon' farmers in the province are members of the Yao and Tày ethnic minority groups, some Hmong, Mường, and ethnic majority Kinh also cultivate the spice. Nevertheless, reports on Yên Bái 'cinnamon' found on Communist Party, Voice of Vietnam, and official news websites consistently show photographs of Yao 'cinnamon' farmers in colourful ethnic minority clothing (Communist Party of Vietnam Newspaper, 2016; Thua Xuan, 2016). These pictures particularly feature women toiling in the fields – despite the fact that men also cultivate the spice, and farmers certainly do not wear their best attire while engaging in agricultural work.

The links between 'cinnamon', gender, and ethnicity are also made in promotional videos produced by development agencies and exporters and during the new, but now annual, 'Văn Yên cinnamon fair', where ethnic minority traditions are put on display. A recurrent theme is the Yao custom for women to receive 'cinnamon' trees as part of their dowry (*của hồi môn*). Children also inherit the trees they have planted and taken care of (see Nguyen Hanh, 2016). Nonetheless, Yao farmers we talked to did not find this particularly noteworthy; they explained to us that all children, both boys and girls, help adults grow 'cinnamon' and partake equally in land inheritance. Hence, the overstated portrayal of Yao culture's relationship to the spice is not so much related to actual practices but rather exemplifies a majority Kinh exoticisation of 'the other' (World Bank, 2009), strategically employing narratives about gender, ethnicity, and culture to craft Văn Yên 'cinnamon' as an authentic, indigenous specialty product. Of course, this indigeneity only exists at the very start of the commodity chains, as the majority of actors with the power to develop provincial policies or promote cassia to foreign buyers are Kinh.

CONCLUDING THOUGHTS

As we have shown, actors along 'cinnamon' commodity chains originating in Vietnam have shaped this product as either the 'champagne of cinnamon' or a 'bastard spice', exemplifying the complex ways that agro-food value is created. After entering the global market in the 1990s, growers and exporters in Vietnam sought niches for their spice as they found themselves competing with both prized Ceylon cinnamon and cheaper, mass-produced Chinese and Indonesian cassia varieties. A distinctive narrative thus became central

to augmenting the value of their product. However, much of Vietnam's exported spice becomes 'faceless' and 'sourceless' as it enters the international markets, either in China or via Singapore. By tracing these commodity chains, we have been able to reveal the complexities of assigning value to Vietnamese 'cinnamon' and the involvement of contradictory imaginings – or not – of geographies, gender, ethnicity, and botanical taxonomies. As Appadurai (1986: 44) noted: 'Whenever there are discontinuities in the knowledge that accompanies the movement of commodities, problems involving authenticity and expertise enter the picture'.

As a result, depending on the actors and spatial scales being interrogated, taxonomies and categorisations of cassia varieties cultivated in northern Vietnam prove to be highly fluid and contested. Acting alongside these commodity chains, the provincial government and international NGO partners emphasise the distinctiveness of 'Vietnamese cinnamon' – particularly 'Yên Bái cinnamon' – as a specialty spice distinct from the Chinese variety and one that should be protected by a geographical indication. Another set of actors, most notably Global North importers and retailers, leverage exoticised images of a remote, war-torn locale and ethnic minority women cultivators, to carve out a niche for this 'cinnamon'. This is in an effort to entice consumers who consider their tastes refined and for whom environmental and social concerns weigh heavily. Yet at the same time, we observe how Vietnam-sourced 'cinnamon' undergoes a politics of devaluation (Bair and Werner, 2011) in the eyes of those who question its distinctiveness: traders and importers from other regions, especially China, as well as several botanists.

This raises the questions of how value is created along these commodity chains and who benefits. At the moment, the relative prosperity of 'cinnamon' cultivators compared to other ethnic minority farmers in the region can be traced to rising global demand for the spice, especially Chinese demand for lower-quality supplies. Cultivators seem to benefit the most from selling an indistinct product on the global market. In the long term, though, these farmers are at the whim of a global market dominated by Chinese and Indonesian producers (Piyasiri and Wijeratne, 2016), who could increase output and depress prices. As noted above, different 'strategies of de-commodification' that seek to differentiate and add value to a product like 'cinnamon' based upon its quality, geography, or the identity of its cultivators, aim to protect producers from such price volatility. The attempt to create a niche market through a geographical indication was spearheaded by the Vietnamese state

as well as various international development agencies, with global retailers in turn adding value through the marketing of this 'authentic' product as cultivated in a remote location by ethnically distinctive people, hence mobilising origin and ethnicity in the commodification of the spice.

Despite efforts like these to enhance value, these strategies of harnessing social and spatial relations for economic profit appear to have failed to provide tangible benefits for local producers. One of the reasons for this undesirable outcome is the highly uneven distribution of both botanical and marketing knowledge between the nodes along these commodity chains. Previous scholarship has demonstrated that the success of a GI designation 'depends strongly on the producers' collective organisation and [their] knowledge and skills about GIs' (Pick et al., 2017: 330). However, local knowledge of – or even interest in – the economic potential of Yên Bái's 'cinnamon' GI was low among ethnic minority cultivators. This lack of knowledge among cultivators mirrors the lack of awareness, and also of interest, among Global North consumers in the precise geographic origins of the spice. One former import company employee noted that 'every economic incentive, in fact, supports continued obfuscation' of the origins of 'cinnamon' behind a veil of exoticised, fanciful branding. Indeed, as we have shown, the marketing of Vietnamese 'cinnamon' as a speciality product is seldom based on any precise location or truthful understandings of the cultivators involved. Hence, there are few 'bridges between worlds of knowledge' in these commodity chains (Appadurai, 1986: 42). In our view, this fragmentation will need to be overcome if GIs and other attempts to connect cultivators with consumers are to succeed in their socio-economic goals.

Our findings highlight the need for commodity chain scholarship to more fully consider how actors augment value and spread or restrict knowledge transfer from node to node. While accumulation of knowledge and profits at the end nodes of the commodity chains is part of the problem, cultivators themselves also tend to err on the side of straighforward, low-risk strategies, and have a well-founded suspicion of – or pure disinterest in – the economic machinations of distant outsiders. Far from being 'passive recipients of, if not obstacles to, agricultural innovations and market opportunities', as they are often portrayed in scholarship on agricultural value chains (cf. Bassett et al., 2018: 1244), our research demonstrates the benefits of centring cultivators in analyses of commodity value creation and acknowledging their agency in livelihood decision making. The ethnic minority 'cinnamon' farmers at

the heart of this research variously seize specific trade opportunities and ignore others as they deploy nuanced – if incomplete – knowledge of their geographical location, traditional trade links to China, and market volatility. If outsiders like development agencies, state officials, and global retailers are to legitimately support commodity chains in the Global South and make a positive impact on cultivators' lives, they must therefore recognise local knowledge systems and the perspectives of ethnic minority actors.

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CHAPTER 5

Extreme weather events, cardamom livelihoods, and commodity chain dynamics in Southwest China

Jean-François Rousseau and Xu Yiqiang

INTRODUCTION

This chapter emerged from two 'failed' fieldwork missions that we undertook in the Sino-Vietnamese borderlands. In fall 2016, we visited six villages in Caoguo Township,[1] an important cardamom cultivation and trade hub in Honghe Prefecture, in the southeast of Yunnan Province. At the outset, our aim was to attend the annual black cardamom *(Lanxangia tsaoko)* harvest and to look into how this spice, and the high prices it commands, contribute to the livelihood strategies of local cultivators. However, no harvest occurred in fall 2016, as a series of extreme weather events decimated almost all the cardamom plants in January of that same year. As a result, we had the opportunity to learn about how ethnic minority cultivators experience, and respond to, the livelihood consequences of extreme weather events. In an attempted follow-up visit in June 2017, we found that unusually late flooding had destroyed a section of the road we were due to use on our way to Caoguo. Our 'plan B' this time was to follow cardamom commodity chains as they unfold outside production zones, tracing how this crop, mostly used as a spice or in traditional Chinese medicine, reaches consumer markets.

This chapter brings together our findings from these two fieldwork journeys. We probe how a range of actors experienced harvest failure and the resulting market disturbances and price spikes – with farmgate prices rising more than 200 per cent to over RMB100 (Chinese Renminbi; about USD15) per kilogramme between 2014 and 2016. In doing so, we shed light

1 Caoguo is a pseudonym, as are all the patronyms we cite in this chapter.

Map 5.1. Case-study cardamom production sites and marketplaces in Southwest China.

on the capacity of different stakeholders to benefit – or at least avoid negative impacts – from trade vagaries resulting from extreme weather events. We investigate how trust and power manifest among actors along the cardamom commodity chains, and we highlight the series of informal arrangements and behaviours that shape the governance of these chains.

We begin our chapter by briefly outlining the conceptual underpinnings that span vulnerability and livelihood studies, as well as debates from commodity chain literature. We then introduce the cardamom commodity chains as they functioned before the 2016 extreme weather events, together with how different stakeholders experienced the extreme weather events, and the impacts on cardamom supplies. We examine how these data testify to the potency of extreme weather events and argue that their role in driving livelihood and economic disruptions with regards to spices grown in these borderlands deserves further scrutiny.

We have been conducting ethnographic research centred on ethnic minority livelihoods and agrarian change alongside ethnic minority collaborators in the Sino-Vietnamese borderlands since the late 2000s. We gathered the specific data introduced here over the course of three ethnographic fieldwork periods spanning 2015–2017 and lasting for over six weeks in total in cardamom production areas and wholesale markets in both Yunnan Province and Guangxi Autonomous Region (Map 5.1.). Our data stem from

conversational interviews and participant observation in urban settlements as well as in upland ethnic minority villages within Caoguo Township. In Caoguo, a Hani villager facilitated our integration into the communities and served as a driver and interpreter with non-Mandarin Chinese-speaking contributors. We interviewed 34 Yi, Hani, and Hmong (officially part of the Miao *shaoshu minzu* in China) ethnic minority cardamom cultivators in total, as well as two Han Chinese ethnic majority traders of non-timber forest products (NTFPs) and their four employees. In urban research sites beyond the borderlands, we interviewed six Han traders based in Mengzi, the seat of Yunnan's Honghe Prefecture, which serves as an important trans-shipment point for cardamom pods grown on both sides of the Sino-Vietnamese border. We also met eight Han traders of NTFPs in retail and wholesale markets in Kunming, the capital city of Yunnan Province, and seven in Yulin City in Guangxi Province, where significant quantities of cardamom grown in Yunnan and Vietnam transit as the pods make their way towards the main consumption markets in eastern China.

LIVELIHOODS, COMMODITY CHAINS, AND VULNERABILITY

The conceptual literature we engage with pertains to livelihood approaches, commodity chain analysis, and vulnerability to climate shocks such as extreme weather events. Extreme weather events diverge from average climatic patterns and drive significant and potentially long-lasting social consequences and responses over a short period of time (Jentsch et al., 2007; Morss et al., 2011). Anthropogenic factors affect the frequency and magnitude of extreme weather events, and such events are expected to become more frequent in the future due to climate change (Stott, 2016). A stream of scholarship unpacking the outcomes of extreme weather events focuses on livelihood impacts, the severity of which is dependent on the vulnerability of affected populations to climate stimuli. Numerous vulnerability frameworks exist, though a common proposition frames vulnerability as the outcome of exposure, sensitivity, and adaptive capacity (Adger, 1999; Intergovernmental Panel on Climate Change [IPCC], 2012). Exposure encompasses 'the nature and degree to which a system is exposed to significant climatic variation' (IPCC, 2001: 987), while sensitivity is 'the degree to which a system is affected, either adversely or beneficially, by climate-related stimuli' (ibid.: 993). In turn, adaptive capacity is

'the ability to anticipate and transform structure, functioning, or organisation to better survive hazards' (IPCC, 2012: 71).

Livelihood approaches introduce a framework to assess how extreme weather events impact individuals and households with different vulnerability levels. Livelihood scholars seek to highlight the complexity and diversity of livelihood asset portfolios and how they combine both tangible and intangible components. To do this, livelihood components are typically conceptualised in the form of an asset pentagon that groups five forms of capital: natural, social, financial, physical, and human (Ellis, 1998; Carney et al., 1999). Changes in access to these assets by an individual or household can drive livelihood diversification strategies that aim to establish new opportunities and to cope with new stressors. The livelihood literature often posits livelihood diversification, or pluri-activity, as a risk-spreading strategy, although the entry costs associated with some livelihood activities mean that diversification is not an option for all, as is also argued in Chapter 3 (Hahn et al., 2009; Martin and Lorenzen, 2016).

Vulnerability and livelihood conceptualisations are frequently addressed together. Localised livelihood knowledge is increasingly acknowledged as key to understanding climate change-driven social impacts and implementing effective mitigation and adaptation policies (Smucker et al., 2015). This literature posits livelihood diversification as a core criterion shaping vulnerability, with households whose livelihoods are more diversified being considered less vulnerable (Adger, 1999, 2006; Goulden et al., 2013; Tian and Lemos, 2018). Yet this scholarship often overemphasises financial income as a determinant in shaping livelihood diversification and tends to assume that diversification correlates with both greater financial wealth and reduced vulnerability (Scoones, 2009). Livelihood approaches have been critiqued for this economic bias, which can overlook the non-financial assets upon which people structure their livelihoods (ibid.).

Moving on from the livelihoods literature, less is known about how the impacts of extreme weather events manifest along commodity chains. Commodity chain analysis first emerged from world system theory scholarship, which defined such chains as the 'network of labour and production processes whose end result is a finished commodity' (Hopkins and Wallerstein, 1986: 159). Critiques have focused on how this vision was embedded in rigid conceptualisations of the hierarchies between actors, from the core vis-à-vis the periphery (Neimark et al., 2016). In response, approaches such as global commodity chains (GCC), global production networks (GPN), and global

value chains (GVC) have considered how macroeconomics and industrial organisation shape profit distribution along commodity chains (Bair, 2005; Gereffi et al., 2005). Often absent from this scholarship, however, are the social and power relations that commodity movement breeds, together with the cultural factors that govern these relations, as is also discussed in Chapters 1, 2, and 4 of this book (Bush et al., 2015; Hughes et al., 2015).

Commodity chains connect actors set within diverse social, cultural, and geographical contexts, with radiuses of influence ranging from the local to the regional and global scales (Hartwick, 1998; Ribot, 1998; Tugault-Lafleur and Turner, 2009; To et al., 2016). None of these variables are permanent or fixed in space, and commodity chain analysis exposes the dynamic power relations that link actors as well as the institutional, political, economic, and socio-cultural factors that mediate these interactions (Leslie and Reimer, 1999; Turner et al., 2017).

Despite the benefits of drawing upon commodity chain analysis to expose these relationships, the commodity chain literature has allocated little attention to how extreme weather events disturb the social relations embedded in commodity chains (Rousseau and Xu, 2021). Among the few scholars to have addressed this link, Adger, Eakin et al. (2009: 152) posited that 'commodity and financial markets serve as a structure for transferring risks', including climatic risks, during their study of the Brazil coffee bust in the 1990s, when rising prices prompted production booms elsewhere. Our case study differs in its approach from their work, however, as we focus on localised, small-scale production that fuels niche culinary and traditional medicine markets. Also, unlike in the case of coffee and other food commodities, financial mechanisms are not involved in any way in cardamom price fixing. Instead, the price bubble that rendered cardamom such a lucrative crop for farmers by the mid-2010s and the price spike that followed the 2016 extreme weather events were outcomes of supply-demand imbalances and speculative manoeuvres from a handful of large-scale market actors, as we reveal below.

CONTEXTUALISING COMMODITY CHAIN INITIAL NODES: YUNNAN'S BORDERLANDS

Given the high prices that black cardamom commands in Yunnan's borderlands, ethnic minority cultivators there consider it a crop for which there

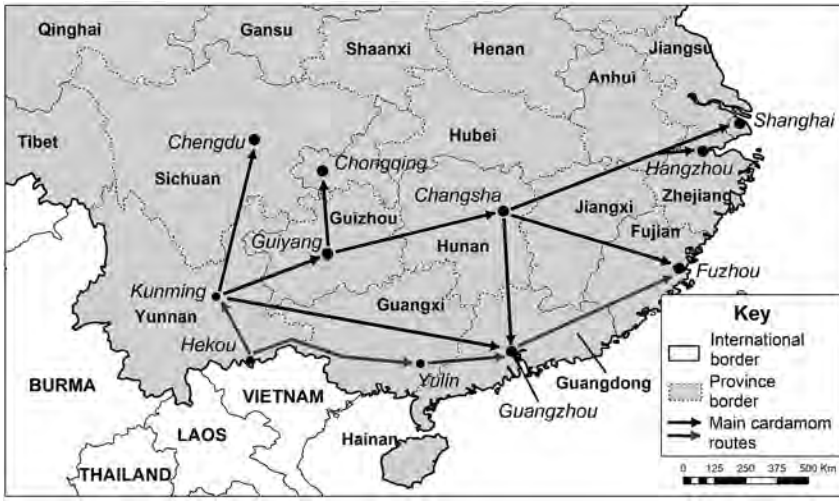
is no equivalent in terms of profitability, and local authorities highlight its unique importance for the economies of villages in Caoguo Township. As one village chief from a remote upland settlement explained in 2016: 'There are only two ways for people to earn cash here: either they sell cardamom, or they leave the village and engage in wage labour'.

Although cardamom cultivation generates unique opportunities for ethnic minority cultivators, they nonetheless consider cardamom an unpredictable and unreliable crop. Growers acknowledge that cardamom yields have customarily varied due to environmental circumstances beyond their control, a situation encapsulated in the idiom *kaotian chifan,* which translates to 'relying on heaven to make a living' (see also Writer, 2017). In comparison, local farmers do not think this way about bananas, the main cash crop they grow using intensive 'modern' agrarian technologies including hybrid seeds and chemical farm inputs.

Political and market circumstances have also been key in shaping opinions regarding cardamom cultivation since the country's broad economic reforms of the 1980s. State authorities actively promoted cardamom cultivation expansion in Caoguo Township at the outset of these reforms. At that time, cardamom was framed as an alternative to swidden farming, a semi-nomadic customary agricultural system practiced by many ethnic minorities in this area, which state campaigns sought to eradicate due to its alleged 'backwardness' (see Sturgeon, 2005). Yi, Hani, and Hmong ethnic minority farmers from this upland setting were thus invited to grow this perennial crop in old growth and/or state-protected forests where they had previously maintained swiddens. By the late 1990s, a rapid price increase for cardamom spurred plantation expansion, which increasingly emerged as a challenge to state forest protection priorities (cf. Xu and Melick, 2007). By the mid-2000s, forest regulations had become more stringent and plantation expansion was officially halted.[2]

From then on, regulations made it virtually impossible for those who had not previously sown cardamom to join this lucrative industry; newcomers to growing could only sow cardamom in their home gardens, where conditions were not as optimal and where the available space was much more

2 This coincides with the onset, in western China, of a reforestation and afforestation campaign initiated after catastrophic floods hit central provinces in 1998. Officially targeted at 'upper catchment protection', the campaign also aimed to regulate ethnic minority behaviour considered undesirable, such as cardamom expansion (see Rousseau and Sturgeon, 2018).



Map 5.2. Main black cardamom commodity chain routes in China.

restricted than in distant old growth forests. Those who had already secured access to plantations still managed to expand their cardamom lands after the ban, though at a very slow pace. They explained that the forestry bureau limited resources to control plantation expansion and forest rangers would not bother them if they added a few more plants each year. These small encroachments were not considered serious affronts to the ban, and forest rangers who lived in the communities or knew the cultivators personally turned a blind eye. Hence, access to cardamom plantations in this setting remained an important driver of wealth and livelihood differentiation in the villages in the late 2010s. Those with greater access to cardamom lands were typically better off and have continued to maintain more cardamom-centred livelihoods than their fellow villagers (Rousseau et al., 2019).

These increasing restrictions regarding cardamom crop expansion also coincided with a period of growth in demand for cardamom from the China-based food and medicine industries. Black cardamom is a key ingredient in some Chinese dishes as well as in a number of traditional medicines for stomach and respiratory ailments. The markets for these niche products have grown in the last several decades, fuelled by an expanding Chinese middle class and the retail sectors catering to it. This has also boosted both Vietnamese and Laotian cardamom imports (Ducourtieux et al., 2006; Tugault-Lafleur, 2009; Choocharoen et al., 2013), along with steady price rises.

A significant portion of these imports now enters China through Jinping County, in which Caoguo Township is located, and then follows two main routes before reaching the main processing and consumption centres in eastern China (Map 5.2.). We document how cardamom circulates along this route next (shown in dark grey in Map 5.2.) and highlight how certain commodity chain actors experienced drastic market disturbances that accompanied the 2016 extreme weather events.

EXTREME WEATHER EVENTS ALONG CARDAMOM COMMODITY CHAINS

Transborder flows and local traders

Steadily growing market demand, alongside legal constraints to plantation expansion, has driven Chinese demand for Vietnamese cardamom. This trade does not always follow 'formal' trade routes. Some Vietnamese pods do transit through large border stations where trade is monitored and potentially subject to import duties, but traders also utilise various tactics to avoid Chinese taxes. One such tactic involves dividing up shipments transiting through prominent border crossings into smaller amounts, so as to benefit from legal arrangements exempting tariffs on trade flows worth less than RMB8,000 [about USD1,250].

Some of this transborder cardamom trade also escapes officials' notice when conducted along small, porous border crossings (cf. Aubertin, 2004; Turner, 2013). The areas in which these crossings are situated have a much lower level of surveillance regarding cross-border movements, allowing for the evasion of trade laws. At one such border point in Caoguo Township, we met two Han traders, Mr Li and Mr Wang (Figure 5.1.). These individuals had known each other for decades, since working together for the former state cooperative that maintained a monopoly on NTFP trading until the late 1990s. Through their former employment, they had acquired the human capital (know-how) and social capital (contacts) now central to their private ventures, including trading this spice, amongst other activities.

Both traders explained that cross-border trade has become increasingly important to their businesses since the mid-2000s as an outcome of growth in market demand and limitations on expanding local cultivation. They added that they and other traders need to maintain trust-based relations with Chinese and

Figure 5.1. Han trader Wang's shop in Caoguo, Honghe Prefecture, Yunnan Province, China. **Colour** p. 150.

Vietnamese border patrol agents to ensure that cardamom and other NTFPs can keep crossing the border steadily. This involves treating border guards to regular dinners, a gesture that in turn generally shields traders from experiencing their shipments being halted at the border or seized in Chinese territory. However, changes in the individual officials posted to specific crossings or new policies can leave traders vulnerable to border patrols implementing the legal framework in a more zealous manner (Rousseau and Xu, 2021).

Local traders such as Li and Wang also maintain relationships with networks of Vietnamese trade intermediaries who regularly cross the border to sell NFTPs during the weekly market spanning both sides of the small Caoguo border crossing. Though Li and Wang do not speak Vietnamese and their Kinh (lowland majority Vietnamese) counterparts only speak very rudimentary Chinese, they manage to conduct weekly trade in cardamom and other NTFPs worth tens of thousands of US dollars during the fall harvest period. Prices are set in RMB, and no contracts are signed.

The trust relations these traders partake in also encompass networks of local, China-based cultivators. They explained that they have to be honest

and accommodating with farmers to ensure regular NTFP supplies. This notably involves using properly calibrated scales and offering cultivators the real market price for their crops. The latter aspect is now particularly important since cultivators can access real-time price information on social network platforms such as *Weixin* (WeChat) through their smartphones. Traders used to offer upfront payment for unharvested cardamom as another strategy to ensure steady supply and cultivator loyalty, but the incapacity of many cultivators to pay the traders back, particularly after the 2016 extreme weather events destroyed already-sold portions of their production, brought this scheme to an end. Li and Wang both stated that they knew there was no way for small cultivators to pay them back entirely that year, so they themselves absorbed most of the loss. While this served to maintain good relations with their respective networks of farmers, both traders agreed that any upfront payment for cardamom would now expose them to great risks and decided to bring this scheme to a halt.

In the early 2010s, Li and Wang both traded some 300–400 tonnes of dry pods yearly, representing a multi-million USD turnover.[3] In 2016, though prices skyrocketed, both traders argued that their profits from trading cardamom went down drastically, as fears about a sudden price drop convinced them to stockpile as little as possible. At that time, Li lamented that trading cardamom was not very lucrative for him anymore: 'I just make a few thousand RMB profit per tonne. This is ten times less than from trading cheaper and less risky NTFPs. Still, I have to buy cardamom to ensure that growers keep selling me their other products'.

Caoguo Township cardamom cultivators

Yi, Hani, and Hmong ethnic minority cultivators noted during interviews that the dry cardamom pods that they store in their attics is 'their most important household asset'. Given the high value of black cardamom, remote plantations in old growth forests have long been subject to theft, especially just before the harvesting period, when seeds have not yet reached full maturity but can nonetheless be redeemed for cash. Farmers therefore deploy various strategies to bring their crops to maturity while keeping them secure. For instance,

3 While historical price information has been difficult to collect, we know that farmgate prices averaged RMB40 [about USD6.25] per kilogramme in early 2015, compared to about RMB100 in late 2016 [about USD15].

Figure 5.2. A woman Hani cultivator descending from her attic, in which she has stored cardamom, Yunnan Province, China. **Colour** p. 151.

cultivators guard their plantations and/or those of their friends and relatives through work-pooling arrangements in the weeks leading up to the harvest. Cultivators also place animal traps with the aim of catching trespassers.

Another tactic to avoid theft that farmers have deployed is agreeing on a common harvest date for the whole village, based on current climatic conditions. Although this means that some areas produce suboptimal yields as they are harvested either too early or too late in the season for the specific micro-climates of the location, cultivators consider fixed harvest dates an efficient strategy to curtail theft; anyone caught with fresh pods before the harvest date is considered a thief.

In normal years, three groups of cultivators might sell their cardamom at harvest, either fresh or dry: those with immediate cash needs; those for whom cardamom only comprises a supplementary income source; and those harvesting very small quantities. In contrast, cultivators with no immediate financial obligations and larger plots dry their harvested crop in the old growth forests where their plantations are located. This is a labour-intensive activity that lasts for up to a week, during which time massive quantities of firewood must be gathered and a fire maintained non-stop so that the seeds dry properly. Forestry law allows cultivators to collect only dead branches lying on the ground for such purposes, but cultivators note that cutting branches on standing trees does not get them into trouble as long as it does not imperil the trees.

As the pods dry, their volume and weight diminish four to five times, with the market value by weight of the dried pods rising accordingly. Drying concurrently reduces the amount of labour required to carry the harvest back to the village, a task that is predominantly undertaken by women, who are considered more capable and careful than men when it comes to carrying sacks of cardamom. When stored in a dry place, dried cardamom pods can be kept for many years without their appearance or taste – and hence their market value – being affected. Ethnic minority growers' attics are perfect conservation environments in this regard: the combination of heat from firewood used for indoor cooking and heating and the fact that houses have few windows and doors creates a suitably dry environment for the pods. Those cultivators who can afford to store dry pods can therefore 'play the market'; they do not have to sell their crops at harvest time, when greater supplies tend to pull prices down, potentially benefitting from annual and pluri-annual supply and demand-driven price fluctuations instead (Figure 5.2.).

Until the 2016 harvest failure, this approach, together with steady price increases, suited large-scale cultivators who had secured significant land for cardamom cultivation before the expansion ban. These individuals typically harvested at least 500 kilogrammes during normal years, a quantity worth about USD10,000 when farmgate prices boomed at RMB100 per kilogramme in 2016, while cultivators with the largest plantations harvested up to a few tonnes per year. Such large-scale cardamom growers thus accumulated much greater financial savings compared to their co-villagers. They also developed cardamom-specialised livelihoods, focusing on cardamom as their key cash crop and taking on more plantation maintenance tasks than cultivators for whom cardamom only comprised a supplementary income source.

Given the range of plantation sizes and cardamom-based livelihood approaches, the 2016 harvest failure, in which local plantations yielded no more than 15 per cent of their usual outputs, affected cultivators very differently. Those maintaining larger plantations, with cardamom-specialised livelihoods, were highly sensitive to climatic events. Still, these cultivators could rely on their wide asset base, including their highly valued cardamom stocks, to cope with the immediate consequences, namely harvest failure and the medium-term impacts of having to wait for their crops to recover. At first, these larger-scale cultivators were not keen to reorganise their livelihoods away from cardamom in order to adapt to future extreme weather events. Though the 2016 events were the most severe they had witnessed in decades, the income they could potentially derive if weather patterns returned to normal in the medium-term was high enough to incentivise them to keep maintaining their plantations, even with financial losses, for some time.

Conversely, those who had secured less cardamom land due to state limits on expansion already relied upon more diversified livelihood portfolios spanning tourism, cash cropping, wage labour, and so on, before 2016. As cardamom constituted a supplementary livelihood activity for them, they were less sensitive to the extreme weather events and could reorganise their livelihoods to adapt relatively easily. Their diversification approaches were akin to those Langill and Zuo describe in Chapter 6, comprising a range of on-farm strategies such as crop substitution, as well as off-farm approaches such as engaging in work migration.

Traders beyond Caoguo Township

Some cardamom pods leaving Caoguo Township are bound for Mengzi, the closest prefecture-level city and a convenient node for commodity chains oriented towards Kunming, the capital city of Yunnan, or Yulin in Guangxi, home to China's biggest cardamom wholesale market. In Mengzi, Zhou, an NTFP dealer, explained during an interview in 2017: 'While we do buy pods from some cultivators we know well, we often have no choice and cannot bypass the local bosses,' referring to traders (or 'bosses') such as Li and Wang. All transactions occur over cell-phones through *Weixin*, and no contracts are signed. As Zhou's son-in-law elaborated: 'This business is all about trust. I only ask for upfront payments from new clients. Anyone not paying would be excluded from the business anyway'. Zhou also told us that

Figure 5.3. Han trader Chen's store in Yulin, Guangxi Province, China. **Colour** p. 152.

he only hired truck drivers he knew personally to transport his NTFPs to wholesale markets, such as Yulin or final destination markets farther east along China's seaboard.

In 2016, the Zhou family's business handled no more than 100 tonnes of cardamom, compared to 600 tonnes during average years. Zhou stated that this drop was not a major concern to him, as lower trade volumes exposed him to less risk. High cardamom prices, which he deemed 'irrational', do indeed breed high risk and low mark-ups. Like the traders from Caoguo Township, Zhou argued that he could not afford to stock cardamom since its high value, combined with the possibility of a sudden price slump, made this crop too risky. He further explained that such a situation is only beneficial

to a network of big bosses who have the capacity to handle such risks and 'buy everything they can and store for long periods, so as to pull prices up'. According to Zhou, these speculative manoeuvres had been on-going since the early 2010s and mostly involved Kunming and Yulin-based actors.

In Kunming, we were fortunate to meet with Mr Dao in 2017, who self-identified as the city's biggest cardamom dealer. He claimed to trade about 1,000 tonnes of cardamom per year – about 20 per cent of the local trade – while also amassing large stocks about which he remained rather vague. Dao stated that information is key to his business. He explained: 'I visit plantations three times a year. By May I can anticipate the size of the fall harvest precisely, and manage my stocks accordingly. That is how I was able to profit from the snow in 2016'. In relation to this, Dao frowned when asked about *Weixin*: '*Weixin* has made price information transparent. There are no more secrets in this business. We used to have more control over the market, as small sellers had no means of knowing the real market price'.

Moving on to the Yulin spice market in Guangxi, we met Mr Chen in 2017, another Han trader dealing 2,000–3,000 tonnes of cardamom per year, who agreed that accessing market information and anticipating supply vagaries are fundamental to the profitability of his business (Figure 5.3.). He asserted, however, that the size of local harvests is not that important for his bottom line. Chen said that his procurement strategies, spanning many cultivation zones in Yunnan and Vietnam, protect him from localised supply failures. Chen added: 'What really counts is that we know about supply vagaries first, so we can manage our stocks accordingly'. When failures occur, large-scale market actors aim to pull prices as high as possible while making sure to avoid a speculation-driven market slump.

Besides information, trust is also fundamental for large-scale actors. As elsewhere along the commodity chain, typical transactions do not involve paper contracts, and *Weixin* is central to business operations. For instance, Mr Liu, another large-scale Han trader whom we interviewed in 2017 and who was allegedly dealing thousands of tonnes yearly and holding important stocks, argued: 'Since we cannot inspect all supplies, we must be sure that the cardamom in the middle of a 60-kilogramme sack is the same as that on the top'. Liu specifically pointed out his dependence on local bosses such as the Caoguo traders, whom he knows personally, as they are the last actors along the commodity chains that oversee the handling of cardamom pods before Yulin. He added: 'These people control cardamom supply, and they

control our access to information about cardamom. We must have good relations with them'.

MURKY GOVERNANCE AND NATURAL EVENTS

Through tracing how cardamom pods make their way from Vietnam and/or Southwest China towards the main processing and consumption centres in East China, we add to research carried out by Yang (2016) and Putzel (2017), which has investigated parallel commodity chains between production centres in the Sino-Vietnamese borderlands and Kunming. Earlier studies have also probed how spice crop commodity chains partly oriented towards China unfold from cultivation centres in Vietnam or Laos up to the Chinese border (Ducourtieux et al., 2006; Tugault-Lafleur and Turner, 2009; Choocharoen et al., 2013; Turner et al., 2017). More specifically, in this chapter we are focusing on a range of informal arrangements that shape livelihoods and social relations along these commodity chains and investigating how different actors experienced the harvest failure resulting from the 2016 extreme weather events and the ensuing price spike. We analyse these two themes in greater detail below.

The murky governance of cardamom

A multitude of trust-based informal arrangements occur within and between nodes along the cardamom commodity chains, as detailed above. In Caoguo Township, these arrangements involve local traders maintaining good relations with border patrol agents so that Vietnamese cardamom pods can keep crossing the border smoothly and steadily. In relation to this, it is notable that Li and Wang do business with their Vietnamese counterparts without leaving any paper trails and using only rudimentary interlingual communication. At another initial node of these commodity chains, farmers in Caoguo Township engage in work-pooling arrangements and check on their friends' or relatives' plantations close to harvest time. They also comply with self-developed local resource management regimes in which all agree to harvest their fields on a commonly agreed-upon date, even if this means incurring some financial losses. Large-scale cultivators growing cardamom in old growth and protected forests maintain their own understandings of what

timber they are allowed to burn, which differ somewhat from what forest laws stipulate. They also negotiate the plantation expansion ban through expanding their fields by a small area year after year. This allows farming communities to increase their cardamom cultivation while maintaining good relations with forest rangers.

Beyond Caoguo, Zhou in Mengzi explained that he only conducts business, including securing contracts and hiring drivers, with people he knows. He considers this safer than filing any paperwork for his cardamom business, which generated a revenue close to USD two million at farmgate prices in 2016. Larger market actors in Kunming and Yulin who trade tens of millions of USD worth of cardamom yearly – and who also maintain stocks probably worth as much – likewise prefer not to leave a paper trail. They too deem trust relations sufficient to ensure that their business goes smoothly and safely. They also hold a tight grip on information about available supply and exert a strong control over market prices – tactics they consider to be key to business profitability and risk alleviation. It therefore comes as no surprise that these actors express little enthusiasm for social media outlets that now allow other commodity chain actors to exchange information that they previously could not access. However, these larger-scale actors realise that this is now an aspect of the commodity chains, and they also realise that they wield very little leverage over it.

The above circumstances testify to the limited influence of formal structures and institutions on these commodity chains, including tariff regimes at the Sino-Vietnamese border and forest laws. In addition, Kunming- and Yulin-based traders deploy strategies of market distortion that are prohibited under domestic trade laws, including the 2007 anti-monopoly law (see Ng, 2018). When asked why cardamom commodity chains operate in such legal grey zones, traders referred to the following reasons: cardamom has a very high market value per weight and volume unit; demand is price inelastic (i.e., consumers still buy cardamom-based commodities in spite of the rising prices of these); the plantation expansion ban makes it easier to anticipate supply; and the relatively small size of the cardamom market keeps it under the authorities' radar. Indeed, interviewees argued that the authorities' grip on the cardamom market is much looser than for commodities considered central to both the state's food security and modernisation agendas (Zader, 2011; Lin, 2017).

Who benefited and who suffered from the extreme weather events?

Turning to the impacts of the 2016 extreme weather events, our research has highlighted how the actors involved in these cardamom commodity chains experienced different levels of vulnerability to harvest failure. For instance, harvest failure drove limited livelihood disruptions for small-scale ethnic minority producers, who could compensate for their cardamom income losses with the other livelihood activities they already pursued. This finding mirrors vulnerability and livelihood scholarship that has posited livelihood diversification as a risk-spreading strategy (Hahn et al., 2009; Martin and Lorenzen, 2016).

Conversely, farmers who maintained more specialised livelihoods based on large-scale cardamom cultivation were more negatively affected. The important benefits they had been deriving from cardamom in the years leading up to 2016, together with the cultivation expenses they incurred, had previously convinced these farmers to concentrate their livelihoods around cardamom. These individuals were then severely affected when their cardamom crops were ravaged, simultaneously losing significant income for that season and potential future income opportunities, given the four- to five-year period it took for their plantations to recover. In addition, these actors now had to cope with greater plantation maintenance expenses.

Large-scale farmers were thus forced to mobilise important financial assets, including both monetary savings and dry cardamom stocks, which they had amassed through the years. As they divested themselves of their stocks, record prices for dried cardamom pods made it easier for these actors to navigate the impacts of the 2016 extreme weather events. Still, they found that the short-term gains earned from booming cardamom prices could not compensate for the immediate and longer-term impacts of harvest failure and plantation devastation. These circumstances reduced their capacity to cope with further cardamom-related expenses, causing concerns over what they could do should more bad weather events impact cardamom yields or plants in the future.

The story of these large-scale cultivators adds nuance to earlier scholarship that has highlighted how greater access to resources has usually correlated with lower degrees of vulnerability to climate change and how wealthier farmers in the Global South have often maintained diversified livelihoods that have lowered their vulnerability (Adger, 1999, 2006;

Lemos and Agrawal, 2006; Goulden et al., 2013; Thulstrup, 2015; Thomas et al., 2019). As growing cardamom has long been a lucrative and relatively hassle-free activity, the large-scale farmers we met decided to concentrate their livelihoods around this specific crop. Nonetheless, this meant that they were highly exposed and sensitive to harvest failure.

However, large-scale cultivators showed little interest in deploying adaptive strategies to reduce their vulnerability to future extreme weather events – for instance by changing their cardamom plantation management strategies or diversifying their livelihoods – citing ecological and technological constraints (cf. Adger, Dessai et al., 2009). They justified their decision to maintain the *status quo* on the grounds that there was no way to protect cardamom plants from future extreme weather events. Indeed, due to their lack of knowledge of alternative approaches, farmers argued that on-site adaptation strategies, such as protecting plants from the elements in the winter or growing more resistant breeds, were not options (Rousseau et al., 2019). Yet these farmers also stated that they wished to maintain their plantations – and thus their cardamom-oriented livelihoods – because they could not afford to miss potential good harvests in the future (cf. Gautam and Andersen, 2016; Cinner et al., 2018).

Despite what one might expect, the 2016 price spike created few profit opportunities for trade intermediaries in Caoguo and Jinping. These intermediaries were extremely concerned that prices were going to remain volatile and could thus drop at any stage, leaving them with important financial debts. In reality, however, there was such a shortage in supply that their cardamom trade volumes fell drastically anyway. In contrast, large-scale traders in both Kunming and Yulin who maintained significant stocks experienced positive impacts and capitalised on the price rise, which they further amplified.

It thus becomes clear that social factors such as ethnicity and location, as well as position and role in the commodity chain, have shaped differences in the distribution of benefits and losses emerging from the extreme weather events (cf. Ingram et al., 2014; Bargawi and Newman, 2017). For instance, none of the ethnic minority farmers we spoke with thought that they benefitted from the extreme weather events, whereas individuals further along these commodity chains, belonging to the Han majority, seemingly reaped the greatest benefits. Likewise, the price spike imposed financial losses or greater risks on most actors located far from large urban settlements, whereas those who gained were based in cities such as Kunming and Yulin. The capacity to store cardamom,

itself an outcome of one's position and role along the commodity chains, as well as access to financial capital, also stood out as an important factor.

CONCLUSION: TENUOUS BALANCES OF POWER

In this chapter we have investigated the activities, actors, and power dynamics involved with black cardamom commodity chains reaching from small China–Vietnam border crossings to the largest black cardamom wholesale market in Southwest China. Our research has exposed the diversity of roles that cardamom cultivation plays in ethnic minority cultivator livelihoods in the borderlands of southeast Yunnan. We have also highlighted the social relations in which these cultivators and other market actors engage, and we have analysed how these stakeholders experienced the consequences of the 2016 extreme weather events that struck the plantations in Caoguo and created nationwide supply and price disturbances.

Our analysis has pinpointed the fact that commodity chain actors engage in informal governance arrangements that often contrast sharply with the dictates of formal trade and legal institutions. These informal arrangements were in place before the 2016 weather events, and they suited the needs of all of the commodity chain actors we encountered when prices rose and the supply was stable. These actors, however, experienced different levels of vulnerability to extreme weather events. Large-scale cultivators were the most sensitive due to their degree of exposure, and such informal arrangements did not necessarily reduce their vulnerability. In contrast, access to important market information and the capacity to influence cardamom markets turned out to be especially beneficial assets for Kunming- and Yulin-based traders and wholesalers.

Nevertheless, new communication platforms that enhance different actors' access to market information and create new connections between distant stakeholders may further reshuffle the distribution of benefits and risks along the cardamom commodity chain in the future. Cultivators now follow real-time cardamom market prices on their smartphones, ensuring that they receive the right price for their pods. At the other end of the chain, the annoyance of some large-scale actors towards *Weixin* suggests that social media could mitigate their current capacity to pull the strings in this sector, regardless of market conditions. This may occur in a context where extreme weather events – and related market disturbances – become more frequent and intense due to global climate change.

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Photo: S. Turner

Figure 1.1. Black cardamom growing in Lào Cai Province, Vietnam. Text p. 12

Photo: Zuo Z

Figure 1.2. Star anise growing in Jinping Miao, Yao and Dai Autonomous County, Yunnan Province, China. Text p. 15.

Photo: S. Turner)

Figure 1.3. Mature ‘cinnamon’ (likely *C. cassia*) plantations and saplings (in foreground) in Yên Bái Province, Vietnam. Text p. 18.

Photo: S. Turner

Figure 2.2. Star anise drying in a large-scale wholesaler's courtyard, Lạng Sơn Province, Vietnam. Text p. 52.

Photo: P. Slack

Figure 3.1. Dried black cardamom ready for sale to intermediary traders, Lào Cai Province, Vietnam. Text p. 76.

Photo: P. Slack

Figure 3.2. A black cardamom crop coming to fruition for the first time in four years, Lào Cai Province, Vietnam. Text p. 79.

Photo: A. Derks

Figure 4.1. 'Cinnamon' plantations in Yên Bái Province, Vietnam. Text p. 105.

Photo: A. Derks

Figure 4.2. 'Cinnamon' at Đồng Xuân market, Hanoi, Vietnam. Text p. 108.

Photo: J.-F. Rousseau

Figure 5.1. Han trader Wang's shop in Caoguo, Honghe Prefecture, Yunnan Province, China. Text p. 130.

Photo: Xu Y.

Figure 5.2. A woman Hani cultivator descending from her attic, in which she has stored cardamom, Yunnan Province, China. Text p. 132.

Photo: Xu Y.

Figure 5.3. Han trader Chen's store in Yulin, Guangxi Province, China. Text p. 135.

CHAPTER 6

False promises

Cardamom, cinnamon, and star anise boom-bust cycles in Yunnan, China

Jennifer C. Langill and Zuo Zhenting

INTRODUCTION

Commodity booms and crop price volatility are increasingly familiar concepts for smallholder farmers across Asia. Market prices and the potential for stable, positive returns are two of the many factors producers consider in choosing what to cultivate on their farms. However, intensified crop boom-bust cycles are increasingly common at regional or even global scales, amidst processes of market integration, transitions away from subsistence production, changing commodity chains, and ongoing forces of globalisation. Such commodity booms and busts have important implications for small-scale farmers in Asia who have often selectively engaged in one or only a few cash crops, and who may have limited alternatives.[1]

Farmers in Asia's agrarian frontiers have witnessed a sharp increase in cash crop production in recent years (Taylor, 2016; Junquera and Grêt-Regamey, 2019; Kong et al., 2019; Mahanty, 2019). These frontiers have become important sites for analysing smallholder participation in cash crop cultivation due to the added vulnerabilities that farmers often face in these settings, including environmental enclosures, economic and political marginalisation, and state-led territorialisation, as noted in Chapter 1 (see also Sturgeon et al., 2013; Eilenberg, 2014; Turner et al., 2015; Mahanty and Milne, 2016). Despite the attention to commodity booms in Asia and their relationships with a broad spectrum of social, political, and economic concerns, there is still a shortage of such research situated within China, and particularly within its southern borderland regions and agrarian frontiers (Borras Jr. et al., 2018; Yin et al.,

1 Though see Chapter 5 for a discussion of the impacts for larger-scale cardamom cultivators.

2019). In this chapter we seek to help address this oversight, while focusing on the three spices at the heart of this collection.

The vast majority of studies that have examined boom-bust processes and their impacts for smallholder livelihoods in Asia have been based on one key commodity, such as coffee in Vietnam, cassava in Cambodia, rubber in Laos, or potatoes in Indonesia (Dang and Shively, 2008; Mahanty and Milne, 2016; Junquera and Grêt-Regamey, 2019; Griffin, 2020). In contrast, there has been limited attention to the occurrence of booms and busts across multiple different crops within a single country or region. To address this, in this chapter we take a comparative approach to all three of the spice crops of focus in this book — black cardamom, 'cinnamon', and star anise — and analyse the distinct vulnerabilities associated with their production by ethnic minority smallholder farmers in Yunnan Province, China. We examine the specific sociopolitical, economic, and environmental factors in this frontier region that have been relevant not just to the boom of each spice, but its specific bust as well. With an emphasis on livelihood continuity (McSweeney, 2004), we extend our discussion beyond the crux that caused the bust of each spice, including looking back to the initial motivations for farmers to cultivate each crop, as well as focusing on how affected farmers have responded to what became a 'busted opportunity'.

We base our discussions here on data obtained through 52 in-depth semi-structured interviews with ethnic minority cultivators of black cardamom, cinnamon, and star anise in Yunnan Province. These interviews were completed in Wenshan and Honghe Prefectures, just north of the Sino-Vietnamese border (see Chapter 1, Map 1.1.). Interviewees included 18 Hmong (Miao), Yao, Yi, and Hani farmers cultivating black cardamom in Jinping County, Honghe Prefecture; 18 Hmong, Yao, and Zhuang farmers who either previously grew or continue to grow cinnamon in Hekou County, Honghe Prefecture; and 16 Hmong and Yao ethnic minority farmers cultivating star anise in Maguan County and Funing County, Wenshan Prefecture. Fieldwork was undertaken in 15 villages across the four counties, intentionally chosen for their involvement with spice cultivation and trade. Recognising the role of culture in shaping ethnic minority livelihoods and state-farmer relations (Tao et al., 2010; Forsyth and Michaud, 2011), we purposefully sampled an ethnically diverse participant pool that included interviewees from each of the five ethnic minority groups most engaged with these spices in Yunnan's borderlands. We also interviewed 18 Han (Chinese

ethnic majority) traders, state officials, and cultivators in the four counties. Interviews were conducted by the second author in the local dialect of Mandarin Chinese or in Hmong in 2017 and 2018.

We frame our analysis, conceptually, at the intersection of crop boom-bust literature and rural livelihoods, with specific attention to livelihood vulnerabilities and diversification. We introduce these areas of the literature in the following section. We go on to contextualise our study within the sociopolitical and environmental backdrop of Yunnan Province, including a brief introduction to the three spice crops of focus within this context. We then dive into the specificities of each spice commodity, including the variety of environmental, economic, and political vulnerabilities that smallholder farmers have faced in their cultivation, as well as the subsequent responses that farmers have pursued. By analysing the booms and busts of cardamom, cinnamon, and star anise comparatively, we are able to tease out trends across spices and frontier livelihoods, including smallholder lived experiences of vulnerability, and stories of agency and resistance. In doing so, we also form nuanced understandings of the commodity volatility that extends beyond individual farms.

CONCEPTUALISING BOOM-BUST CYCLES AND LIVELIHOODS

Boom-bust cycles, defined in Chapter 1, are dynamic processes, with the specific trajectory of any single commodity having direct implications for the actors involved in its production. Previous studies have demonstrated that such cycles often connect with highly context-specific smallholder livelihood trajectories, inequality, labour relations, biodiversity and conservation, and land uses (cf. Clough et al., 2009; Meyfroidt et al., 2014; Gatto et al., 2015; Belton et al., 2017; Cramb et al., 2017; Filipski et al., 2017; Hervas, 2019, 2020; Ornetsmüller et al., 2019). While market trends and economic dimensions are often centrally involved in boom-bust scenarios, they cannot be understood in isolation from related social, cultural, and political factors, as well as environmental conditions and the broader livelihoods of the cultivating households (Vicol et al., 2018; Yin et al., 2019).

Conceptual approaches to livelihoods are thus also relevant here as they consider the many interconnected factors that relate to an individual's or a household's means of earning a living. As outlined in Chapter 1, this

includes the productive and reproductive activities that people engage in, the assets they mobilise to undertake these activities, the contexts within which they pursue their livelihoods – including regulating institutions and power structures – and the outcomes from these processes (Chambers and Conway, 1991; Ellis, 2000; Rakodi, 2002). Livelihoods are dynamic, historically embedded, under ongoing (re)negotiation, relational, and shaped by social difference and power imbalances. We draw on livelihood approaches here as a complementary conceptual field for understanding the lived implications of wider boom-bust processes, and the role of human agency in these analyses. Importantly, we employ a livelihoods perspective that looks beyond isolated economic dimensions to include sociopolitical considerations, culture, and ethnicity. Our perspective also recognises the myriad enabling and constraining forces that households face in pursuing their livelihoods, and to what outcomes.

More specifically, we wish to focus on and also refine understandings of the vulnerability context within which actors negotiate their individual and shared livelihoods (Ellis, 2000; Rakodi, 2002). Building on critiques of the ways in which the term vulnerability has been mobilised rather apolitically at times (see Adger, 2006; Ribot, 2010), we account for possible historical, political, social, economic, and environmental considerations in our understandings of vulnerability (Bebbington, 2000; Staples, 2007). For example, this could include the political context of pursuing one's livelihood in a particular location such as within a designated nature reserve, or sociocultural dynamics that enable some individuals to gain access to more opportunities than others. This context might also involve unforeseen shocks such as price drops or family illness, and environmental factors such as seasonality or extreme weather events.

Actors may adjust their livelihood portfolios, strategies, and objectives in response to changing vulnerability contexts, effects of embedded power structures, or outcomes of previous or ongoing livelihood activities. As also noted in Chapter 3, individuals and households can deploy short-term coping mechanisms, such as reducing consumption or seeking additional wage work, or engage in longer-term adaptations and changes, such as reorganising the household division of labour or changing between sectoral specialisations (Niehof, 2004; Adger, 2006). These shifts are not always reactive or out of desperation; they can also testify to proactive pursuits of new livelihood opportunities or anticipation of future changes (Bebbington,

1999; Bouahom et al., 2004). Diversification represents one longer-term livelihood transition that is commonly observed, occurring when individuals or households add additional livelihood activities or replace previous undertakings with new ones. More diverse portfolios are often seen as more secure, with livelihood risks similarly diversified (Ellis, 2000; de Sherbinin et al., 2008). As with livelihood change and response mechanisms broadly, many socio-economic factors mediate diversification, and differential access to diversification options can perpetuate inequality (Rigg, 2006; Gautam and Andersen, 2016). Within livelihood transition literature, some authors have highlighted the need for greater attention to livelihood fluidity and continuity, as livelihood diversification is not a uniform or streamlined process (Bouahom et al., 2004; McSweeney, 2004). We thus apply these concepts to our investigation of spice crop boom and bust processes, extending our analysis beyond one snapshot of the 'cycle' and examining the longitudinal experiences of the ethnic minority households involved. This temporal analysis demonstrates that while there have been clear boom-bust phases for each spice crop in Yunnan, changes for smallholder livelihoods have been more iterative.

SPICE CULTIVATION IN YUNNAN'S AGRARIAN FRONTIER

This chapter focuses on Wenshan and Honghe Prefectures, two of 16 prefectures in Yunnan Province that together are home to nearly 8.5 million people in the province's southeast region (Statistical Bureau of Yunnan Province, 2020). Marginalised socioculturally as much as geographically, numerous ethnic minority populations live alongside the ethnic majority Han Chinese in Wenshan and Honghe Prefectures, including the Hani, Hmong (part of the broader Miao group in China), Yao, Yi, and Zhuang (Xu et al., 2005; Michaud et al., 2016). For generations, ethnic minority farmers in this frontier region have undertaken semi-subsistence agrarian livelihoods, with wet or dry rice cultivation as their staple crop, maize cultivation as a complementary food source and, particularly in recent years, cash crops to earn income (Champalle and Turner, 2014; Rousseau et al., 2019). Regardless of local livelihood practices and preferences, these populations are often the target of agricultural and market extension programmes drafted in Beijing and Kunming to facilitate and orient local 'development' (Rousseau and Turner, 2018). These instances are a testament to the state's broader discourse of 'ecological modernisation' and

'scientific development' as the objectives for how these rural areas should be governed (Yeh, 2009, 2013; Rousseau and Sturgeon, 2018). Intergenerational and culturally embedded relationships between ethnic minority populations and nature have thus been increasingly challenged over recent decades. For example, animist beliefs and practices – including worshipping sacred trees, forests, streams, and mountains – have been increasingly monitored and regulated, fomenting state–minority tensions surrounding forest management (Xu and Ribot, 2004). Forest classification and regulation, together with their uneven implementation, trigger diverse and evolving farm-level implications, which ultimately create confusion amongst farmers (Zhou and Grumbine, 2011; He et al., 2020).

Since the 1990s, numerous (and at times seemingly contradictory) national and provincial policies and programmes have shaped the local population's access to land – an essential asset for growing spices such as black cardamom, cinnamon, and star anise. Four specific political campaigns are highly relevant for the Yunnan farmers we interviewed. The first is the 'Returning Farmland to Forests Programme' (more commonly known as the 'Grain for Green Programme'). Implemented in the late 1990s, this initiative was designed to facilitate reforestation and ecological restoration nationwide (He and Sikor, 2015). Immense in scope and considered one of the largest conservation schemes in the world at the time, the implications of the 'Grain for Green Programme' continue to impact small-scale farmers in Yunnan (Weyerhaeuser et al., 2005; Delang and Yuan, 2015; Gao et al., 2020). The second campaign is the designation of 'National Nature Reserves' (NNRs). While first introduced by the Chinese government in 1956, the number of NNRs has rapidly increased in recent decades (Xue and Jiang, 1994; Zhou and Grumbine, 2011). The establishment of NNRs in general, and their bureaucratic and top-down style of planning and management in particular, have redefined resource access regimes and created further obstacles for local livelihoods (Zhou and Grumbine 2011; Yeh, 2013), as also seen across the border in northern Vietnam, in Chapter 3 of this collection. Third, the 'China Western Development' policy was instituted in 2000 with the objective of improving infrastructure, economic investment, and social welfare in the region by means of accelerated urbanisation and other land cover changes (Lai, 2002; Barabantseva, 2009). Multiple levels of government have accordingly championed large-scale cash cropping programmes, with direct effects on ethnic minority livelihoods (Goodman, 2004). The fourth and last

political campaign of note here is China's 'Collective Forest Tenure Reform', referring to a series of collective forest reforms rolled out since 2003. Directly incentivising individual households to participate in collective forestry, this initiative has reshuffled land tenure rights and regimes as well as how they are interpreted and enforced (He and Sikor, 2017).

Against this complex backdrop of Yunnan's forest policies and differential access rights, we focus on three spices that are cultivated in Wenshan and Honghe Prefectures, namely black cardamom, cinnamon, and star anise, all of which have been subject to different state policy incentives or restrictions. In addition to the social, political, and economic context that ethnic minority spice farmers in Yunnan navigate on a daily basis, including household-level incentives and restrictions for cash crop cultivation, each spice crop also has specific ecological characteristics and circulates through multi-nodal commodity chains that cultivators need to work with. As introduced in Chapter 1, black cardamom (*Lanxangia tsaoko;* hereafter cardamom) is a perennial plant that ethnic minority farmers have grown in these borderlands for generations for household consumption or use as a medicinal agent (Rousseau et al., 2019). Cardamom has become a booming cash crop among ethnic minority cultivators in Yunnan, amidst growing domestic and international demand over the past 30 years. Local government reports indicate that Hekou's cinnamon trees (possibly *Cinnamomum cassia*[2] at our study sites) were introduced to the region as diplomatic gifts from Vietnam during the 1950s and 1960s (Hekou County Government, 2015, 2017). Since then, as interviewees in Hekou County, Honghe Prefecture noted in 2018, cinnamon cultivation has been encouraged as a prosperous cash crop to help alleviate poverty, particularly within the 'Grain for Green Programme'. In Honghe Prefecture, the cinnamon bark is initially harvested for sale from pruned small branches without disrupting the tree's growth, which is viable approximately four years after planting. The trees reach maturity at about ten years of age, after which cultivators fell them and harvest the remaining bark.[3]

2 Interviewees at the Honghe Research Institute of Tropical Agricultural Science of Yunnan Province in 2018 informed us that the species of cinnamon being grown in Yunnan has yet to be properly identified; however, it is likely to be *Cinnamomum cassia*. See Chapter 4 of this collection for more on this classification confusion. We use the term cinnamon in this chapter, following farmers' preferred terminology.

3 While farmers on both sides of the Sino-Vietnamese border have been found to also harvest the leaves and twigs for essential oil production (Fang, 2005; see also Chapter 4, this collection), this was not observed or mentioned by interviewees at any of our study sites.

Like cardamom, star anise (*Illicium verum*) has been cultivated in Yunnan for generations as one of the numerous semi-subsistence farming crops. Star anise continues to boast many local uses – as a common ingredient in Chinese cooking, as a traditional medicine, and as an ingredient in locally produced cosmetics and alcoholic beverages (Han and Ning, 2006). Each of these three spices has long played an important role in local semi-subsistence livelihoods, for consumption and reproductive uses. However, Yunnan cultivators have faced numerous challenges regarding each of these spice crops, which we turn to next.

BUSTED PROMISES: VULNERABILITIES OF SPICE CULTIVATION

Our interviewees explained the occurrence of three distinct forms of livelihood vulnerabilities affecting spice crop farmers in the region, which we categorise as environmental, economic, and political vulnerabilities. We present these findings, disaggregating the livelihood vulnerabilities associated with each spice crop, as well as detailing the diverse responses that cultivators undertook to cope with and adapt to these vulnerability contexts.

Black cardamom

Some of our oldest interviewees recalled many decades of small-scale cardamom cultivation in Honghe Prefecture, with the spice mostly being used for medicinal purposes. They recounted a slight expansion of cardamom cultivation in the early 1980s, when a small number of farmers were invited to participate in a state initiative involving growing cardamom in protected forests. However, interviewees noted that attitudes toward cardamom shifted starkly with the onset of economic reforms from the late 1980s, when farmers began to view the spice as an important cash earning opportunity in China's emerging market economy. Within ten years, the boom in cardamom in Yunnan had generated an important rise in income for ethnic minority households, but stricter enforcement of centralised forest protection laws began to prevent additional expansion in forested areas. By the time of our interviews in 2017 and 2018, specific environmental and economic vulnerabilities had halted the boom in cardamom production and had nearly led to its disappearance from smallholder livelihood portfolios in Yunnan's borderlands.

⁜ *Cardamom's environmental and economic vulnerabilities*

Cardamom plants are highly vulnerable to extreme weather events, which interviewees had observed to be increasing in frequency and severity in mountainous Yunnan Province. According to interviewees, these extreme weather events, in the form of cold spells, snow, and/or hail, had recently destroyed much of the cardamom cultivated in Yunnan. Interviewees noted that they had not seen snow in over three decades leading up to 2014, but had encountered snowfall every year since then, with the 2016 cold spell being one of the worst weather disasters in living memory – a finding also reported in Chapter 5. These extreme weather events had caused many smallholder farmers to lose their entire cardamom plantation, which for some was over 50 *mu*[4]. One young cultivator recalled:

> There has been so much more snow over the past three years! Selling cardamom used to be our family's main source of cash income. We cultivated a large area for cardamom, as my father was one of the first four farmers who started growing cardamom in this village in the 1990s. However, we can't count on it to earn money anymore after these years with so much snow. We just don't know how to save our cardamom plants from these heavy snowfalls! (27-year-old Yi man, Adebo Township, Jinping County, Honghe Prefecture).

Cardamom cultivators were at a loss as to how they could reduce the environmental vulnerability of their crop, as this same young farmer explained:

> There is basically no way to save our cardamom. You can see how large our cardamom plantations are, it would be impossible to cover them, especially for those cultivating on higher and steeper lands. The snow comes without any notice when you're not prepared. Within three or four days, the snow is done falling and all the cardamom is already frozen or dead.

Another farmer interviewee reported similar concerns:

> For as long as I can remember, there were never any heavy snowfalls in this area. That all changed three years ago, when the snow, cold spells, and hailstorms started. These are the greatest disasters threatening us farmers, but I don't know any solution (35-year-old Yao man, Jinhe Township, Jinping County, Honghe Prefecture).

4 1 *mu* is 666.5 square metres.

These experiences were common among our interviewees, with many sharing stories of cardamom shrubs killed by even just a few days of snow or frost. These environmental vulnerabilities had long-term implications for interviewees, given that extreme weather events can leave cardamom plantations unproductive for at least four years. These trends had also exacerbated price fluctuations for cardamom, thereby increasing economic vulnerabilities for some cardamom growers, as discussed in greater depth in Chapter 5.

Many cardamom cultivators felt that they had unequal relationships with wholesalers, creating further economic vulnerabilities. As one cultivator explained, due to the remote location of his community's plantations, he and his neighbours were dependent on intermediaries to get their cardamom pods to marketplaces, unable to afford the transport costs on their own. Importantly, this reliance meant that intermediaries held disproportionate bargaining power in determining purchase prices for the cardamom pods. Farmer interviewees also lamented the fact that intermediaries and large-scale wholesalers engaged in unfair stockpiling and speculation. They noted that this afforded intermediaries and wholesalers greater power at later nodes of the commodity chains, which created further price fluctuations and uncertainty for farmers. One farmer outlined how this stockpiling and speculation had caused the farm-gate price of cardamom to drop from RMB100 [USD15] per kilogramme in 2016 to RMB80 [USD12] per kilogramme in 2017, and then to RMB60 [USD9] per kilogramme in 2018. Another cultivator remarked:

> In recent years, the price of cardamom has been constantly changing. It's very difficult to decide when the best time is to sell your stock. My cousin refused to sell at RMB80 [USD12] per kilogramme and said he was waiting for a higher price, but then the price dropped to RMB60 [USD9] per kilogramme! You have no idea how much he regrets that decision. The prices are all controlled by the buyers. They stockpile the crops to drive down the prices they pay us farmers (58-year-old Hani man, Maandi Township, Jinping County, Honghe Prefecture).

⁜ *Responses to cardamom vulnerabilities*

Households responded to the environmental and economic vulnerabilities linked to their cardamom cultivation through both on-farm and off-farm livelihood diversification. We found that older and poorer individuals were

more likely to diversify on-farm, whereas younger and wealthier interviewees were more inclined to pursue off-farm diversification. For some households, goat-rearing comprised an important on-farm diversification strategy. This was most common in one village in Muchang Township, Maguan County, particularly for households whose cardamom shrubs had succumbed to extreme weather events. In a village in Maandi Township, Jinping County, 25 households had collaborated in their response to this same weather-based vulnerability and had begun a collective goat-raising initiative. Most of the other households that had pursued on-farm diversification chose to plant new crop species to replace their cardamom. *Sharen* (砂仁, *Amomum villosum,* also known as *Wurfbainia villosa*), a different plant species that belongs to the same genus as black cardamom, was the most commonly reported replacement crop. However, farmers who had adopted goat-rearing and/or *sharen* cultivation mentioned that they were experiencing similar vulnerabilities to those they had experienced with cardamom cultivation. Both replacement on-farm diversification endeavours were similarly vulnerable to extreme weather events, with interviewees reporting significant losses of goats and *sharen* shrubs during recent cold spells. Other cardamom farmers had converted old rice or maize fields into banana plantations, contributing to a larger regional boom in banana cultivation ongoing in Honghe and Wenshan Prefectures since the early 2000s. However, the pervasive spread of fusarium wilt (more commonly known as 'Panama disease') had decimated many of these new plantations. Therefore, the most common on-farm diversification responses to the environmental vulnerability of cardamom had been largely unsuccessful at creating greater livelihood security.

Other crops that interviewees had less-commonly begun cultivating either alongside or instead of cardamom included *chong lou* herb (重楼, *Rhizoma paridis*), a traditional medicine used for treating cancer, and *da qing ye* (大青叶/板蓝根, *Isatis indigotica,* also known as Isatic root or Chinese indigo), a traditional remedy for respiratory infections and other conditions. However, overall most cardamom cultivators reported that such on-farm diversification had not generated enough cash income to meet their needs, and that these new activities had given rise to other forms of environmental and economic vulnerabilities. These shortcomings had led some farmers, especially younger household members, to focus on off-farm diversification undertakings instead, or to develop livelihood portfolios combining both on- and off-farm activities.

For households that had recently pursued off-farm income generation, this usually included multiple new endeavours. One Hmong man, who was a village leader, noted that over 50 per cent of working-age adults in his village had out-migrated to seek day labour in urban areas. While varying between villages, the most common off-farm diversification activities included day labour on nearby farms, salaried work in tourism or construction, small-scale trade and operating local businesses, and out-migration for urban-based wage labour. One man described his approach:

> I do almost everything. You can see I offer meals and accommodation here, and I also sell tea, cardamom, and wine, not just to tourists but to local villagers too. I own two cars as well, so I can work as a driver if anyone needs (42-year-old Hani man, Maandi Township, Jinping County, Honghe Prefecture).

Another interviewee explained his diversification away from cardamom cultivation:

> My cardamom all died following a heavy snowfall. Now I mostly earn my income as a silversmith. If I'm lucky, I can make over RMB3,000 [USD450] per month from this (35-year-old Yao man, Jinhe Township, Jinping County, Honghe Prefecture).

While less common amongst interviewees in terms of their responses to the economic vulnerabilities associated with cultivating cardamom, some decided to promote customary laws and collective management approaches to resist intermediaries' unfair behaviour and the broader price fluctuations discussed above. We encountered this at two of our study sites, where villagers had created 'Cardamom Associations'. In these associations, all households cultivating cardamom in a given village collaborated to increase price stability, mutually agreeing upon harvest and sales timing based on each group member's crop maturation date (see also Chapter 5, this collection). While this approach was not widely implemented nor able to counter environmental vulnerabilities, it may hold potential for other villages in the region in terms of managing economic vulnerabilities.

Cinnamon

Of the three crop commodities we investigate here, cinnamon has had the fastest boom-bust cycle. As part of state reforestation projects, planting

Figure 6.1. 'Cinnamon' tree trial plots at Honghe Research Institute of Tropical Agricultural Science, Yunnan Province, China. **Colour** p. 222.

cinnamon was widely encouraged in the early 1990s, with the state-run Honghe Research Institute of Tropical Agricultural Science distributing seedlings. Farming households quickly followed suit, planting cinnamon on forest reserve land (Figure 6.1.). Both individual cultivators and provincial and prefectural cadres saw that cinnamon held great promise, with its sale price booming while other cash crops grown in the region were failing. For example, incomes from citrus trees and pineapple – common cash crops at the time – were plummeting, and the high altitudes across most of Hekou County meant that rubber – a booming cash crop elsewhere in Yunnan – could not be grown successfully. However, most cinnamon was felled and replaced by bananas within a decade of the initial wave of planting that began in the late 1990s in Nanxi Township and in the early 2000s in Yaoshan Township. This rapid shift away from cinnamon cultivation was due to complex relationships between multiple forms of vulnerabilities.

⁜ *Cinnamon's political, economic, and environmental vulnerabilities*

Among our three case study spices, cinnamon had some unique and notable political vulnerabilities associated with its production, which were closely

interrelated with additional economic and environmental vulnerabilities. After the government played a significant role in the boom in cinnamon cultivation in the region, particularly through the 'Grain for Green Programme' noted earlier, subsequent changes in government policies and their implementation produced livelihood vulnerabilities for cinnamon cultivators. This was often caused by a lack of clarity: while governmental subsidies and provisions of seedlings encouraged people to plant cinnamon, plantations were later (re)designated as protected forest reserves where 'environmental protection' guidelines forbade farmers from harvesting mature trees. Many households thus began cultivating cinnamon without knowing that they would be prohibited from harvesting their cinnamon trees or from growing other crops on that land once they had accepted the government's subsidy. A local Yao leader explained:

> In our community, we were encouraged to plant cinnamon trees rather than rubber trees, as the relatively high altitude here is not suitable for rubber tree growth. But now, most land plots planted with cinnamon are abandoned and we can't cut the trees down, as the location was later deemed within the protected watershed area (Yao man, Nanxi Township, Hekou County, Honghe Prefecture).

The political vulnerabilities that farmers experienced facilitated the bust associated with cinnamon in this agrarian frontier. One Hmong farmer stated:

> In our village, all the farmers chose not to plant any more cinnamon on forest land that was designated within the reserve, as it couldn't be harvested or cut down. The more you plant, the more you waste (51-year-old Hmong man, Nanxi Township, Hekou County, Honghe Prefecture).

Even in areas where farmers were allowed to harvest cinnamon trees, the 'Grain for Green Programme' created additional economic and environmental vulnerabilities. For example, in Yaoshan Township, interviewees shared that they planted cinnamon following government recommendations, but that the government did not provide training or guidelines on proper cultivation. As it turned out, farmers unknowingly chose poor planting locations and soil conditions, and they planted cinnamon seedlings too close together. These uninformed decisions negatively impacted tree growth and the value of the bark, and ultimately led to many households exiting cinnamon cultivation. Farmers who were permitted to fell their trees told us they were forced

to sell their harvest for extremely low returns. As one 43-year-old Hmong man in Nanxi Township (Hekou County, Honghe Prefecture) put it: 'We planted about 1000 cinnamon trees. When they were about eight or nine years old, we sold them all at once for RMB3,200 [USD480]. I know, it was such a cheap price, but we didn't have a choice'. To put this in perspective, this income amount covered less than two months of living expenses and tuition fees for this interviewee's children.

Moreover, the relatively long growth cycle of cinnamon, offering minimal returns for nearly ten years, created financial strains for farmers attempting to meet rapidly-increasing costs of living, as another Hmong farmer, this time a 38-year-old man in Nanxi Township, conveyed: 'In our village, we tried planting many different cash crops, and cinnamon was one of them. We tried it for a while, but eventually we gave up on cinnamon, mostly due to the long growth cycle. We can't wait that long'. This relationship between economic and environmental vulnerabilities thus caused many interviewees to turn to other cash crops that could generate income faster.

⁜ *Responses to cinnamon vulnerabilities*

The majority of cinnamon farmer interviewees had already exited cinnamon production prior to our fieldwork. However, in contrast to those who had abandoned growing cardamom (or star anise, as we detail below), cinnamon cultivators had adopted nearly exclusively on-farm alternative livelihood activities. Banana cultivation was overwhelmingly the most common replacement for cinnamon, but certain interviewees also mentioned growing mango, grapefruit, *sharen*, taro, pomelo, jackfruit, plums, and macadamia nuts. Switching to new cash crops largely complemented ongoing subsistence rice and maize production and small-scale animal husbandry, as was the case when these households were growing cinnamon. However, this on-farm diversification oriented towards labour-intensive cash crops pushed some households to abandon subsistence production and to restructure their household livelihood portfolios altogether. As the same Hmong farmer introduced above explained, this often led to increased household expenses:

> When we started planting cinnamon trees, our family also grew rice and maize. However, we had to quit growing them once we started our banana plantations. Now we have to buy maize from elsewhere to feed our pigs, which costs us about RMB3,000–4,000 [USD450–600]

every year (38-year-old Hmong man, Nanxi Township, Hekou County, Honghe Prefecture).

Diversifying away from cinnamon production solved many of the livelihood vulnerabilities specifically associated with this spice; however, banana cultivation generated new forms of vulnerability previously unseen with cinnamon, namely price fluctuations, additional labour input requirements, and widespread fusarium wilt. A few households were able to earn cash by renting out their agricultural land, but this was very uncommon among interviewees.

We only encountered two households who had yet to fell their cinnamon trees at the time of our fieldwork, with both clarifying that they were waiting for a good enough sale price before doing so. It was unclear from these discussions if the interviewees intended to harvest their trees legally or not, leading to our next finding.

Beyond the diversification strategies interviewees reported in response to livelihood vulnerabilities associated with cinnamon production, our analyses uncovered several examples of everyday resistance. Faced with political vulnerabilities related to changing forest regimes, some households felled their cinnamon trees as an active form of resistance. Members of these households explained that they cut down their cinnamon trees while they were still small, given their inability to harvest them once matured. Others felled their mature cinnamon trees and quickly replanted other tree species, thereby still 'complying' with the guidelines of the 'Grain for Green Programme'. Still others reported their cinnamon trees as 'stolen' and claimed financial compensation from state officials. Households thus pursued everyday resistance strategies in different ways and at different scales, but pushed back in some way against the political vulnerabilities that grew alongside their cinnamon trees.

Star anise

Turning now to Maguan and Funing Counties, both in Wenshan Prefecture, the great promise of star anise as a financially rewarding cash crop enticed many farmers toward the spice, given its projected high returns and its relatively low investment requirements. Some households had cultivated star anise extensively as early as the 1940s, before losing ownership of their trees during the collectivisation era. These same trees were reallocated again in the onset of the late 1980s reforms, but most often to different households

than those who had planted them originally. The boom in star anise took off with the widespread establishment of plantations from 1999 onward, closely related to the 'Grain for Green Programme'.

⁜ *Star anise's environmental and economic vulnerabilities*

While many farmers initially saw star anise as a safe and lucrative cash crop, it eventually became associated with a unique set of environmental and economic vulnerabilities that farmers had not anticipated. A crop disease never encountered before infected a significant portion of star anise trees across the region (Figure 6.2.). This environmental vulnerability, locally referred to as the 'cancer of star anise' or the 'falling leaves disease' either sharply reduced yields or killed the trees.[5] None of our farmer interviewees knew what caused the disease or how they could have saved their trees, noting how different it was from other crop disease outbreaks they had dealt with in the past. One farmer explained how severe and unprecedented this problem was for his household:

> We have about 17 *mu* of star anise. Those trees were our main source of income; we haven't planted any other cash crops since we started growing star anise. However, since they got infected by the 'cancer of star anise' there is basically nothing for us to harvest from the trees. We just left them there and can't do anything. I've worked in agriculture my entire life. I'm used to dealing with pest problems or unusual crop diseases, but I really don't know how to solve this star anise disease. I've never seen anything like it before (49-year-old Hani man, Muchang Township, Maguan County, Wenshan Prefecture).

Farmers had shared their concerns with local civil servants, who were similarly perplexed. One former village leader commented: 'Everyone, including the leaders of our village, is concerned about this weird disease, but nobody knows what to do to solve this problem' (Muchang Township, Maguan County, Wenshan Prefecture).

Beyond the economic vulnerabilities inflicted by this disease, fluctuations in star anise farm-gate prices further perpetuated these farmers' precarity. Most star anise cultivators sold their harvests to visiting wholesalers and, like

5 Interviews with officials at the Star Anise Research Institute, Funing County, suggested that the disease encountered by star anise farmers may have been *Colletotrichum gloeosporioides Penz* (see also Su et al., 2019); however, we were unable to confirm this at our field sites.

cardamom cultivators, noted that this created imbalanced power relations in negotiating sale prices. Moreover, star anise farmers had experienced an even more severe form of economic vulnerability through a price crash beginning around the year 2000 that rendered star anise cultivation largely unviable (as detailed in Chapter 2 across the Sino-Vietnamese uplands). Before this price drop, prices had been significantly higher during the late 1980s and 1990s, when many households had begun cultivating star anise. Interviewees recalled that they obtained as much as RMB25–50 [USD3.75–7.5] per kilogramme of dried star anise during these initial years, but that since then, prices had dropped to around RMB12 [USD1.80] per kilogramme, and sometimes to as low as RMB1 [USD0.15] per kilogramme. The household-level implications of this price bust cannot be overstated, particularly given the rapidly rising costs of living. Interviewees noted that they were able to earn a year's worth of cash income from star anise cultivation alone before the price crash, but that other income streams had become essential since the bust. One farmer detailed:

> My family has 3 *mu* of star anise, about 200 trees. From what I can remember, star anise made the most money in the early 1990s, when my family made about RMB10,000 [USD1,500] per year. However, from about 2004 until 2013, we could only make about RMB3,000 [USD450] per year. It is a bit higher now. We have made about RMB4,000 [USD600] per year since 2014 (42-year-old Yao man, Dongbo Township, Funing County, Wenshan Prefecture).

For star anise cultivators fortunate enough not to have had their trees infected by disease, the farm-gate prices they could have received were insufficient to make a profit, and oftentimes too low to even cover the labour costs incurred during the harvest period. Therefore, star anise trees have been left idle for years in the hopes of a future price boom, but star anise prices have yet to recover from the crash in the early 2000s. This economic vulnerability, coupled with the environmental vulnerabilities of the spice, has led most star anise farmers to abandon its cultivation. An official at the Star Anise Research Institute expanded on this: 'The price of star anise has remained low in recent years. The farmers don't have the same level of interest as before. We're trying to promote some projects to help them enhance the productivity of the trees to improve this situation' (Star Anise Research Institute, Funing County, Wenshan Prefecture). However, while

Figure 6.2. Diseased star anise trees in Maguan County, Wenshan Prefecture, Yunnan Province, China. **Colour** p. 222.

local government and research institute officials were aware of the local bust in star anise production, at the time of our interviews no solutions had been found to re-engage farmers in its cultivation.

⌗ *Responses to star anise vulnerabilities*

Livelihood diversification was the most common response to the vulnerabilities interviewees experienced with star anise cultivation, as was the case with cardamom and cinnamon cultivators. However, in contrast to the other two spices, most star anise cultivators pursued off-farm livelihood activities rather than on-farm alternatives. It seemed that many interviewees portrayed the star anise boom as a distant memory, reflecting on how limited their livelihood

portfolios were at that time. They mentioned that they now pursue a much broader spectrum of activities, among which migrant and day labour were the most common, followed by growing additional crops on family farms, including chayote, *sharen*, sugar cane, and various vegetables. Like respondents quoted earlier, star anise cultivators noted that these new livelihood activities presented their own sets of associated challenges, reiterating that livelihood change and diversification were no automatic panacea. For instance, interviewees whose household members pursued migrant labour noted how physically challenging this work tended to be. Meanwhile, *sharen*'s long growth cycle created financial concerns for other households, and households that began cultivating sugar cane discovered how difficult it was to grow this crop and navigate power-laden sugar cane commodity chains.

Stories of everyday resistance were also fairly common in our interviews with star anise cultivators facing the economic vulnerabilities associated with this spice. This was most frequently observed through farmers 'improving' the appearance of their star anise before its sale. We repeatedly heard from interviewees that the size, colour, and shape of their star anise dictated the price they obtained for it. They therefore developed micro-resistance strategies to improve their harvest's appearance. For example, star anise could be boiled and dried in the sun to increase its weight and improve its appearance, or alternatively, could be coloured with chemical dyes – each approach fetching higher sale prices than selling directly from the harvest.

Beyond these small-scale and individual tactics, some interviewees shared stories of a larger-scale resistance movement that occurred in the wake of a major price crash in the 1980s. At that time, farmers sold most of their star anise directly to a state cooperative, and therefore farmers blamed the economic losses they endured on the government. In response, many producers harvested their star anise, transported it to cooperatives, and then burnt it in protest. As price drops and fluctuations are now associated with the market rather than the government, such resistance strategies have become obsolete. Leaving their star anise crop unharvested so as not to waste time and resources selling it for insufficient returns represents the only option that farmer interviewees deemed reasonable.

Vulnerabilities and responses across spice crops

Our comparative approach to three boom-bust cycles in Yunnan revealed the complex and interwoven forms of environmental, economic, and

political vulnerabilities that ethnic minority farmers have faced with spice crop cultivation. Both environmental and economic vulnerabilities were experienced by cardamom, cinnamon, and star anise cultivators; however, these vulnerabilities manifested differently depending on which crop was involved. Cardamom and star anise were prone to environmental hazard-driven vulnerability, with farmers losing substantial yields and at times entire harvests or plantations. For cardamom farmers, these crop losses were caused by the increasing frequency of extreme weather events, whereas for star anise farmers, a new and unidentified crop disease proved fatal for most of their spice plantations. By contrast, the environmental vulnerability linked with cinnamon stemmed from poor tree growth (and therefore, poor yields) resulting from inappropriate growing methods that farmers had used, not knowing them to be inappropriate. Economic vulnerability was similarly reported amongst farmers growing all three spices, which manifested in more uniform ways across the spices than the other forms of vulnerability. Cash shortages, price drops and fluctuations, and unequal bargaining power with intermediaries and wholesalers further along the commodity chain (particularly for cardamom farmers) comprised common manifestations of economic vulnerability as interviewees experienced it.

Unlike environmental and economic vulnerabilities, political vulnerability was less commonly observed across our field sites and was only mentioned by cinnamon farmers. For cinnamon farmers, this political vulnerability was closely related to the national context and political campaigns that directly affected smallholder livelihoods, particularly the 'Grain for Green Programme'. Unclear and fluctuating government policies led farmers to plant cinnamon trees – with the intent to eventually harvest them – only to then have these same trees retroactively deemed 'protected' within forest reserves.

CONCLUSION: BIG BOOMS AND SMALLHOLDER RESPONSES

Recognising the ubiquity of crop booms worldwide, it is important to examine the significant implications that these processes present for the smallholder farmers involved – especially when a quick boom results in an equally rapid bust. This was the case for our ethnic minority spice cultivator interviewees in Yunnan Province, China, who discovered the complex environmental, economic, and political vulnerabilities associated with growing

cardamom, cinnamon, and star anise the hard way. Some of our interviewees responded to these conditions by undertaking additional livelihood activities in conjunction with spice crop cultivation. However, much more commonly, as each spice crop underwent its bust, respondents' households focused on longer-term adjustments to their livelihood portfolios that involved either largely or completely exiting spice cultivation. These findings demonstrate the extreme instability of cultivating boom crops, and the resulting precarity for those who rely on such crops as a key livelihood component.

In turn, most of the farmers we interviewed felt that they had received little to no support to cope with this instability. In some cases, governmental bodies facilitated households' involvement in spice crop cultivation – such as providing seedlings – but then failed to support farmers afterwards. We would thus argue that research institutes and government departments with a vested interest in maintaining cardamom, cinnamon, and star anise production in Yunnan need to better understand the specificities of cash crop vulnerabilities. Such an understanding is necessary if there is to be any chance of making these crops viable options in achieving long-term local livelihood security. While abrupt changes in market prices and demand often resulted from market behaviours that occurred further along the commodity chains, finding ways to reduce vulnerability and support successful response mechanisms would lessen the losses that farmers face as they rapidly transition between different boom crops. Here, non-governmental organisations may be better equipped to support smallholders and their nuanced livelihood vulnerabilities, as the capacity of civil society actors is harshly limited in the Chinese context, especially in frontier regions (Yeh, 2013).

Returning to the conceptual fields of boom-bust cycles and rural livelihoods, we have captured wider political and economic trends and their everyday implications for vulnerable spice cultivators. The concept of boom-bust cycles implies economic booms and busts; however, we found numerous understudied, yet interconnected sociopolitical and environmental drivers related to farmers entering and exiting commodity production beyond just price volatility. These drivers included extreme weather events and crop disease, changing environmental governance, and the power inequalities characterising the relations that farmers maintain with wholesalers and intermediaries. Despite the diversity seen between various commodity booms and busts across the Global South, their associated livelihood implications, particularly for smallholder cultivators, remain largely under-examined in the

literature. The very term 'boom-bust cycle' suggests that the same or similar events are occurring with each boom and bust, which then repeat cyclically. Boom-bust processes may be large-scale events and connect with regional or global trends, but this broad conceptualisation often fails to capture the lived realities of smallholder farmers. These are the individuals who directly experience the booms and busts, and who shape their responses according to the specific vulnerability contexts they face. By drawing upon a people-centred livelihood analysis, we have demonstrated the important nuances in the booms and busts of these three spice crops in Yunnan, China. This approach has further illustrated that boom-bust processes are extremely non-uniform, with differentiation between spice commodities, the impacts these processes present to smallholder households, and the adjustments farmers make to each spice's complex vulnerabilities – all within a single agrarian frontier.

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CHAPTER 7

Marketing makeovers and mismatches of Vietnam's quintessential spices

Michelle Kee and Celia Zuberec

INTRODUCTION

As spices are marketed internationally their visual and textual representations often take on the aura of the locations where they are cultivated and the cultures of those growing them. We know of green cardamom from the fragrant hills of northern India, of cloves from the Moluccas 'spice islands' (Maluku Islands), and hand-picked saffron from Iran. On a North American food co-operative website 'Welcome to the Table' we observe images of ethnic minority Yao (Dao) cultivators in northern Vietnam wearing beautiful embroidered clothes while carrying large rolls of *Cinnamomum cassia* (referred to locally as 'cinnamon'; see Chapter 4) from their fields. A National Geographic writer similarly illustrates his work with a whimsical image of a Hmong farmer's weathered hands and traditional hemp clothes dyed blue with indigo as he tends to his cardamom plants in the Sino-Vietnamese borderlands (Teh, n.d.). Meanwhile, on their online marketing website, a Vietnamese spice company Agrideco Vietnam, displays a photo of two carefully balanced and beautifully crafted wooden cooking spoons lying on a bed of perfectly coloured, whole star anise (Agrideco Vietnam Co. Ltd., n.d.),. While the use of such imagery is meant to inspire us to enjoy homemade mulled wine, bake cinnamon buns, or attempt to recreate the heavily scented broth of *phở*, it tells us very little about where these spices come from. Who are the people growing, processing, and trading cinnamon, black cardamom, and star anise? How do these spices become commodities and how are they marketed as they move from the Sino-Vietnamese uplands to global consumer markets? To what degree are the livelihoods of those cultivating these spices taken into consideration regarding the process of commodification and marketing?

And what do current circumstances tell us about how commodities become fetishised – or perhaps how are they *de*-commodified or *de*-fetishised in different parts of the chain?

The concepts of the commodity and fetishism are of course closely rooted in Marxist analysis. In his first volume of *Capital*, Marx argues that the concept of 'fetishism' allows the social relations and processes through which a commodity comes to exist to be concealed or obscured (Marx, 1976 [1867]). He suggests: 'The commodity-form, and the value-relation of the products of labour within which it appears, have absolutely no connection with the physical nature of the commodity and the material relations arising out of this' (ibid.: 165). He goes on to label this as fetishism, noting: 'I call this the fetishism which attaches itself to the products of labour as soon as they are produced as commodities, and is therefore inseparable from the production of commodities' (ibid.). As Gunderson (2014: 109–110) elaborates: 'The importance of these insights for Marx and the development of Marxist theory is that the commodity form and relations rooted in commodity production transform people into things'. Building on these ideas, radical geographers such as David Harvey (1990: 423) call for the need to 'get behind the veil, the fetishism of the market'. This allows one to 'make powerful, important, disturbing connections between Western consumers and the distant strangers whose contributions to their lives were invisible, unnoticed, and largely unappreciated' (Cook, 2004: 642). Following this line of argument, Allen and Kovach (2000) propose the concept of 'de-fetishisation', suggesting that marketing approaches such as organic labelling or fair-trade can bring attention again to the 'real' commodity chains and actors involved in the movement and processes that bring food to kitchen tables, especially to concerned consumers in the Global North. More recently, however, others have reasoned that such approaches, while raising awareness, do little to actually remove the structural forces that continue to promote the maximisation of profits and constantly expanding production (Gunderson, 2014). Such debates are highly relevant in the case of the three spices we focus on here.

Meanwhile, with their feet firmly rooted on the ground rather than following such theoretical debates, thousands of ethnic minority individuals and households in Vietnam's northern borderlands are diversifying their livelihoods as the impacts of state-supported agrarian transitions, market integration, and increasing extreme weather events impact their on- and off-

farm livelihood options (Turner et al., 2015). While many of these ethnic minorities were traditionally semi-subsistence farmers who periodically engaged in small-scale trade, using their profits to purchase farming equipment, medicines, kerosene, food for special occasions, and small treats, nowadays farmers find themselves increasingly in need of cash, given the rapid changes occurring across these borderlands (Sowerwine, 2011). As noted in earlier chapters, this cash is necessary to purchase farming inputs, especially hybrid rice and maize seeds which are being strongly promoted by the Vietnamese state, as well as to pay for the rising costs of children's education, hospital and other medical expenses, and additional changing needs (Bonnin and Turner, 2012). Since the 1980s, the range and scale of cash crops grown across the northern borderlands have accordingly expanded, with some options being strongly supported by the state, especially in tandem with reforesting 'bare hills' programs, as has been the case with 'cinnamon' trees (McElwee, 2009). Local communities are experimenting with other potential cash sources more independently, such as black cardamom, while a few cash crops such as star anise, have withstood numerous political systems over time, with farmers regarding them as stable 'back-up measures' for cash income when needed.

In this chapter our aim is to analyse how 'cinnamon' (or most likely *C. cassia*), black cardamom, and star anise are marketed and promoted by three key groups of actors *beyond* the farm gate, namely Vietnamese state officials, Vietnam-based exporting companies, and overseas importing and retail companies. While doing so, we also investigate the degree to which the strategies of these groups align or differ, and the impacts this might have on the farmers of these spices. While the Vietnamese state increasingly focuses on promoting 'geographical indications' (GIs) for marketing 'cinnamon' and star anise in particular, supporting their cultivation in specific upland districts, we find that marketing strategies in the Global North rely on completely different tactics. Indeed, even Vietnam-based exporters appear to be ignoring the Vietnamese government's GI labels, leading us to question the merit of GIs in supporting spice cultivators and their livelihoods. This returns us to our discussion regarding the degree to which de-fetishisation or de-commodification occurs through different marketing approaches for these spices.

After a brief overview of our methods next, we outline the conceptual framing for this chapter. This framing draws on a systems of provision commodity chain approach to illuminate the construction of value and the importance of studying the final commodity nodes of distribution,

retail, and consumption. This approach also highlights meaningful debates concerning the de-commodification of different 'things', especially food. We then briefly review the processes and actors transferring the spice crops from Vietnam's northern uplands to local traders and exporters. These insights – corresponding to the initial nodes of the spices' respective commodity chains – have been detailed in Chapters 2 for star anise, 3 for cardamom, and 4 for 'cinnamon', and hence are only briefly recapped here, operating as the contextual backdrop to the arguments we advance. Our results then focus on the commodity chain processes moving these spices from farmer to consumer, and on the complex 'makeovers' and forms of value creation the spices undergo en route. These mid- and end-chain commodity nodes are vital to the ability of ethnic minority farmers to trade their spices but have not been systematically documented to date, remaining something of an analytical 'black box'. Concentrating on the Vietnam-rooted commodity chains to keep our analysis manageable, we evaluate the actions and priorities of key players, including Vietnamese state officials, Vietnam-based exporting companies, and overseas importing and retail companies and stores. We conclude by reflecting upon the implications of the divergences in the marketing and promotional approaches of these key players for ethnic minority cultivators.

The initial part of our analysis is partly based on ethnographic data previously collected by Sarah Turner and Annuska Derks in the provinces of Lạng Sơn (star anise) and Yên Bái ('cinnamon'), and by Sarah Turner in Lào Cai (black cardamom). Moreover, we draw insights from interview data with four exporters and over 40 ethnic majority Kinh retail traders of the three spices in Hanoi; with 25 retailers outside Vietnam (in Bangkok, Beijing, Hong Kong, Shanghai, Auckland, Montréal, New York, and Zurich); with Global North importing and retail company representatives; and with the author of an Asian cook book (also a former restaurant critic). Our core analysis, however, is based on our content analysis of export and retail marketing websites that claim to sell these three Vietnam-sourced spices (although not necessarily exclusively). This includes 40 websites selling Vietnam-sourced 'cinnamon', 40 websites selling Vietnam-sourced star anise, and 29 websites selling Vietnam-sourced black cardamom (the total number that we could find for the latter).

Our initial 'deep dive' into possible marketing websites focused on companies based in Vietnam, Europe, North America, and China. We used multiple different search engines depending on country or region (e.g. Chinese

Table 7.1. Numbers of marketing websites analysed, based in four countries/regions.

	Black Cardamom Retailers	'Cinnamon' Retailers	Star Anise Retailers	Total per region
Vietnam	10	10	10	30
China	4	10	10	24
North America	5	10	10	25
Europe	10	10	10	30
Total per spice	29	40	40	**109 Sites Total**

A few of the websites changed between our first time accessing them and when we returned for cross-checking. Our analyses thus refer to the images and textual content of websites when we first accessed them, having cut and copied these visual and textual data to Excel files at that time.

search engine Baidu) and targeted ten languages (English and French, which we speak, as well as Spanish, Italian, Swedish, German, Finnish, Norwegian, Vietnamese, and 'Simplified Chinese', all with the help of Google Translate). We used precise wording in each of our searches, always combining the name of the spice with Vietnam, and either the word 'buy' or the word 'purchase'. When switching between languages, we tried to include close translations of the following keywords: Vietnam, Vietnamese, buy, black cardamom, star anise, cinnamon, *C. cassia*, North America, Europe, China. In order to change the location we were searching, we adjusted the settings of our search engine to focus our results on that specific country/region. We examined the first ten retail websites listed for each spice, per region, and we selected only those that either advertised the product as Vietnamese or listed Vietnam as the place of origin of the spice. We also made sure to avoid any sponsored advertisements.[1] We analysed 109 retail websites in total based in four countries/regions, which comprised ten websites based in each of the four for 'cinnamon' and star anise (40 total websites for each spice) and a total of 29 websites for black cardamom (Table 7.1).[2]

1 We relied on Google's ranking of sites for this section, which is based on a broad array of algorithms that determine which web pages rank the highest for specific search terms.

2 Although we spent over 40 hours of searching for more retail websites selling Vietnamese black cardamom, we were not able to find further sites. Evidently Vietnamese 'cinnamon' and star anise are more widely traded on the global market than Vietnamese cardamom.

CONCEPTUALISING THE (DE-)COMMODIFICATION OF SPICES

Commodity chain analyses provide scope for us to focus on the complex socio-economic networks and relationships among actors as a commodity moves from production to consumption, as detailed in Chapter 2. In this chapter, we draw on the systems of provision approach, which emphasises the range of relations and connections between initial production and final consumption nodes, concentrating on the different ways by which meaning is ascribed to 'things' along the way by different actors involved (Fine and Leopold, 1993). Authors employing a systems of provision approach maintain that it allows one to focus more intently on the cultural aspects of production and consumption than a number of other commodity chain approaches to date (Goodman, 2002; Craviotti, 2016). This consideration of commodities' 'horizontal dimensions' of provision proves especially helpful for our study, permitting us to focus on evaluating and comparing the diverse processes and actors involved at one specific node across comparative commodity chains. Taking the example of our case study, this allows for a careful analysis of how one spice is marketed in different locales and the specific (de-)commodification and value creation processes involved, while also allowing for comparisons across spices.

Bidwell et al. (2018a) assert that there are two ways to interpret the concept of de-commodification. First, and closely following Marxist arguments, the aim of de-commodification is, as Harvey notes, to 'remove the veil' that is formed by market capitalism, and, in so doing, to make the social and ecological origins of food products visible (Bidwell et al., 2018a). By revealing the 'hidden geographies of food, these networks enable the ethical motivations of consumers … to support more equitable and sustainable conditions of production and trade' (ibid.: 2). We suggest that this approach is fairly similar to the concept of 'de-fetishisation', given its close links to Marxist thought. Bidwell et al. (2018a) go on to argue that a second interpretation is further removed from neoclassical understandings of commodities 'as undifferentiated products which must compete largely on price. From this perspective, the objective of de-commodification is to differentiate and add value to products, allowing them to compete based on quality and identity' (ibid.: 2). It is this second, slightly broader interpretation of de-commodification that we believe is more useful in understanding the marketing

approaches of Vietnamese state officials and Vietnam-based and overseas companies. As Bidwell et al. (2018a: 2) add: 'This second sense emphasises the agency of peripheral actors in mobilising local resources and traditions to differentiate their products'.

Constructing 'socially responsible' foods that are marketed as being environmentally or socially sustainable represents one approach to the de-commodification of agro-food products that retailers frequently draw upon to differentiate food items (Arce and Marsden, 1993; West, 2010). Writing about the market for fair-trade coffee, for instance, West (2010: 693) contends that the fair-trade approach 'attempts to merge seemingly disparate strands of consumer life: economic choice, political action, and identity production'.

A second way that agro-food products are marketed, which is also often employed by those creating 'socially responsible' food items, is through their association with specific ethnicities or cultures. Such strategies appeal to imaginary understandings of 'authenticity' that often rely on reductive and stereotypical representations of cultures (Foster, 2006). Products such as coffee, cacao, and quinoa have often been traditional foods of a specific culture long before they were appropriated by the mainstream and transformed into transnational commodities (Arce and Marsden, 1993; Lind and Barham, 2004). A third and closely related way that agro-foods are marketed is by their symbolic attachment to place. Indeed, Hull (2016: 125–116) argues that 'consumers assign value to products based on their place of origin', adding that 'Western companies frequently attempt to profit by association with the "traditional" products and methods of non-Western cultures and places'. Geographic indications are such a means by which commodities can be branded with exoticised images of a specific culture and place (ibid.).

Significantly, there is often a large disjuncture between the meanings and values that consumers and producers attach to food commodities (West, 2002). Although commodities 'retain … their material attributes' (West, 2002: 24), they are reconstituted with new messages and meanings by the types of processes outlined above. As such, we draw on these conceptual ideas to undertake a series of horizontal analyses at the final commodity nodes of the three spices upon which this collection focuses, drawing on the systems of provision approach to commodity chain analysis. Moreover, we want to better understand how and to what degree these spices are assigned specific values and transformed by different actors. Namely, to what degree

are these spices de-commodified in order to meet the assumed expectations of Global North consumers at their final commodity node?

CONTEXT: INITIAL BORDERLAND COMMODITY CHAIN NODES

As detailed in Chapter 3, and thus just briefly reiterated here, black cardamom continues to be an important export crop from the northern upland provinces of Vietnam, primarily cultivated by ethnic minority Hmong and Yao farmers (see also Turner et al., 2015). In general, these communities have integrated black cardamom into their livelihood strategies as a means of diversifying their sources of capital (Rousseau et al., 2019). As Vietnam has advanced along its transition to a market economy, ethnic minority farmers who have typically led semi-subsistence livelihoods have found themselves increasingly needing cash resources. Because of the high demand and high value of black cardamom, the crop has afforded farmers some security when their households are experiencing food shortages, and it has also provided them with the financial resources to purchase industrial farming inputs and to cover other new expenses. An important factor that explains the continuing popularity of black cardamom cultivation within the region is that it requires comparatively little labour or fertiliser compared to other cash crops; nonetheless, as noted in both Chapters 3 and 5, an increase in extreme weather events in the region has been causing considerable concerns for cultivators.

As detailed in Chapter 4, for some ethnic minority farmers situated in the Vietnamese provinces of Yên Bái, Thanh Hóa, and Quảng Nam, the cultivation of 'cinnamon' has become an important component of their livelihood diversification strategies. Specifically, for ethnic minority Yao and Tày, and to a lesser extent Hmong and majority Kinh, 'cinnamon' has been planted to generate income and supplement subsistence forms of agriculture. Indeed, while these groups have historically relied on rice for their personal consumption, they have increasingly engaged in animal husbandry and growing cash crops as the country has transitioned to a market economy, with 'cinnamon' gaining importance since the 1990s as a result of state policies encouraging its cultivation.

Turning to star anise, as outlined in Chapter 2, thousands of ethnic minority farmers have traditionally grown star anise as part of their composite livelihood strategies within the northern Vietnamese provinces of Lạng

Sơn, Quảng Ninh, Cao Bằng, and Bắc Kạn. Significantly, over 70 per cent of Vietnam's star anise is grown within the province of Lạng Sơn, where ethnic minority Nùng and Tày are the most populous ethnic groups. For these inhabitants, star anise has been an important agricultural product alongside the staple crops of rice and maize, as well as other trees like pine, persimmon, plum, and peach. While fruit and pine trees have offered a greater source of revenue in the short term, star anise has been viewed as a reliable long-term source of income. Yet, as noted in Chapter 4, variations in global market prices for star anise in recent decades have resulted in important income fluctuations for cultivators.

CLASHING VISIONS IN MARKETING MAKEOVERS

Take 1. Geographical indications: Enthusiastic state officials versus ambivalent farmers

Geographical indications (GI) are 'place-based names' adopted to communicate 'the geographical origin, as well as the cultural and historical identity' of commodities (Bowen and Zapata, 2009: 108). These could – theoretically – be considered an ideal way by which local communities could lead attempts at de-commodification (Bidwell et al., 2018b). Moreover, different multi-lateral organisations and non-government organisations (NGOs) have increasingly supported GIs in recent years as a means by which Global South commodities can be promoted for Global North consumers while socio-economic development is – theoretically – improved for Global South farmers and producers. In Vietnam, this approach of associating specific products with specific places and peoples has been embraced by a number of influential officials (UNCTAD, 2015; Pick et al., 2017). Pick et al. (2017: 306) note that 'the Vietnamese legal framework for the protection of GIs provides for a State-driven, top-down management of GIs that is supported by strong public policies'. Not surprisingly therefore, GIs have become increasingly common in the country, including for Lạng Sơn star anise (since 2007), 'cinnamon' from one district in Yên Bái Province (since 2010), as well as for other upland commodities such as seedless persimmon from Bắc Kạn Province, and honey from Mèo Vạc District, Hà Giang Province (Pick et al., 2017).

The officials interviewed about the GI schemes in both Lạng Sơn Province (for star anise) and Yên Bái Province (for 'cinnamon') were very

enthusiastic about the fact that their local spice had gained this recognition and argued that it was an important step in the marketing of such products overseas. As one official in Lạng Sơn Province noted: 'The geographical indication for our star anise is very important. It shows we have a very high quality product and that it's better than star anise from China. People here know that, of course, but now people overseas will learn this too' (Interview, 2016). Similarly, in Yên Bái Province, an official explained: 'This is a big deal for our cinnamon. It will make people around the world know more about cinnamon from here and want to buy it' (Interview, 2017).

Despite this enthusiasm among officials, farmers cultivating these spices were only occasionally aware of, or interested in, the GI possibilities when interviewed. In Lạng Sơn Province, farmers were less than impressed with government efforts to date to support their star anise-based livelihoods. Having survived the price fluctuations brought about by the Tamiflu boom and bust (see Chapter 2), they preferred to rely on their own trade connections and established links than on the government. As one farmer put it: 'The government hasn't really helped us at all. They push this new GI thing, and have done some advertising, but they don't really help us. Maybe they help bigger farmers and wholesalers, but not small-sized growers like me' (Interview, 2016). In Yên Bái Province, the GI is only applicable to 'cinnamon' grown in one specific district, Văn Yên. A farmer from that district who sold sizeable quantities of 'cinnamon' sticks each year as well as leaves and small twigs for oil, declared: 'I don't really know much about the GI. Somebody told me a bit about it, but I don't really see what difference it makes to me. I already have good connections to the people I trade with; why would I change that? They give me a fair price already' (Interview, 2017). Only one 'cinnamon' farmer interviewed from outside Văn Yên District was aware of the GI but, noting that it did not apply to his land, he said it was of no value to him anyway. Other farmers growing one of these spices either did not see the relevance of a GI for their livelihoods given the trade connections they had already established, or remained unaware of the programme.

Notably, black cardamom has not been registered for a GI. According to Lào Cai provincial officials, this was because black cardamom is a shrub grown under forest cover and is often found in Nature Reserves or National Parks, where it is therefore cultivated illegally. One official in Sapa District, Lào Cai Province explained: 'Well, I understand the cinnamon GI as it's grown on people's land in a legal way and they have the right to grow the

trees, but black cardamom is a shrub and the people here [ethnic minority farmers] don't own the land and shouldn't be growing it; this is forest land' (Interview, 2019). This same official went on to stress: 'We should focus on state-promoted crops for this region instead; it's better for everyone' (Interview, 2019).

Given these disparate opinions from local farmers and state officials regarding how worthwhile it is to cultivate star anise and 'cinnamon' GIs, we were curious about the degree to which these GIs are drawn upon at the export nodes of the commodity chains of these two spices, and whether the GIs appear 'on the radar' for Global North consumers. With no GI for black cardamom, we were also interested in whether its geographical origin and the ethnicity of its cultivators feature in how this spice is marketed internationally.

Take 2. Strategies of Vietnam-based exporters: Showcasing staff and facilities

Although it has been impossible to gain detailed accounts of export quantities and profits due to fears over 'trade secrets' being stolen, interviews with local traders and exporters in Vietnam highlight the fact that most black cardamom and star anise grown in the northern uplands of Vietnam is sold directly to wholesalers in China. For black cardamom, this is predominantly to traders in Yunnan Province, and for star anise, to traders in Guangxi Zhuang Autonomous Region.

For black cardamom, Kinh wholesalers in Lào Cai city, located directly on the Sino-Vietnamese borderline, are key nodes in these commodity chains. These wholesalers purchase their supplies from a number of smaller-scale Kinh, Tày, and Giáy traders based in small upland towns or villages, buying directly from local farmers. These small-scale traders have built up and maintain strong relationships of trust with farmers and will sometimes purchase black cardamom in advance for credit, to help farmers through leaner food supply months. In turn, Lào Cai City wholesalers enjoy privileged access to information on market prices and trends for black cardamom in China, creating important profit opportunities for them.

In the case of star anise, it is mostly local Tày and Kinh intermediaries who collect star anise from farmers, or farmers travelling with their stock to larger wholesalers in Lạng Sơn City. As star anise passes through the hands of intermediaries and larger-scale wholesalers, it is processed for domestic or overseas distribution. In some instances, wholesalers trade directly with

buyers at Chinese border crossings. More often, however, the star anise travels to Hanoi where trade companies prepare it to be exported. At this stage, a large portion is processed into essential oil through steam-distilling. Small quantities of whole star anise are sold to Singapore, India, Thailand, Bangladesh, Turkey, the US, and the UK, while the majority is traded to China, the largest supplier of star anise worldwide.

The export routes for Yên Bái 'cinnamon' are more varied than for the other two spices, and while exports to China are important, there are also notable trade routes via Hanoi to Singapore and then on to global markets, as well as direct routes from Vietnam to India. The quality of the bark largely determines the destination of the commodity. The highest-grade bark is usually exported to Western countries and a few select importers in Asia, while lower grade bark is often sold to importers from Bangladesh, India, or China. The lowest quality 'cinnamon' is usually sold to China for additional processing. In Yên Bái Province, farmers commonly sell their stock to local intermediary traders based in their village or a nearby town, or sometimes to larger-scale traders who roam the province. These intermediaries then sell to larger-scale wholesalers, a few of whom are in the province, with others based in Hanoi or in Bắc Ninh Province, on the outskirts of Hanoi. Only small proportions of 'cinnamon', star anise and black cardamom are sold and consumed within the country, usually via wholesale markets in Hanoi, such as Đồng Xuân Market.

While the trade nodes at the start of these commodity chains within Vietnam and towards China are typically based on face-to-face and telephone connections, online advertisements of the spices become more important for those interested in selling further abroad. We turn to this online selling strategy now.

⌗ *Online Vietnamese retailer advertising approaches*

Websites have become important marketing tools for Vietnamese spice retailers and are therefore interesting places to start looking into how these retailers seek to promote their products. While some of the websites we visited looked rather outdated, merely providing basic information on the spice and the company, a few companies boasted more elaborate sites with media reports on the spices, recipes, and customer reviews. By rigorously analysing the content and images of these websites, it became clear which elements retailers at this node in the commodity chains considered important

Figure 7.1. Yao farmers sorting fresh black cardamom pods. **Colour** p. 223.

marketing points. These were not so much the origins of the spice itself, but were rather the hygiene practices and professional processing and trading capacities of the companies.

From our content analysis of marketing websites, we found that each of the ten websites for online Vietnamese wholesalers and retailers of black cardamom included images of raw black cardamom pods, while seven also included photos of what appeared to be processing or storage facilities. Rather strangely, one website had images that depicted hydroponic farms completely unrelated to cardamom commodity chains, which appeared to have been chosen rather at random. Four of the ten online wholesalers/retailers included a range of images of fresh cardamom, with a number of these images exhibiting cultivators either picking or sorting the fresh spice. One image showed women cultivators in obvious Yao ethnic minority clothing (Figure 7.1). Another retail site also featured images of lowland Kinh workers drying and sorting cardamom, with women donning conical hats, often associated with Kinh rice farmers. Half the websites had images of company employees, most frequently in processing facilities, seemingly inspecting or sorting through bulk quantities of the spice, with a few other individuals photographed in business attire. In general, the websites lacked imagination or 'advertising finesse' in the ways that they chose to portray black cardamom.

Nine of the ten online Vietnamese wholesalers/retailers for 'cinnamon' that we identified included images of raw 'cinnamon' bark being processed,

dried, or stored in large quantities. In fact, these were the most common scenes represented, with photos on these nine sites overwhelmingly depicting either a storage facility filled with unprocessed 'cinnamon', or workers in 'Western' clothing handling the spice. Six websites also displayed images of what appeared to be office workers, wearing suits or similar professional attire, posing in front of packaged spice at a processing facility, or in an office space. One website included an image of a small group of individuals, likely company employees, holding an award, while another showed employees giving the 'thumbs up' in front of their company logo. Another image presented two Vietnamese and European men shaking hands while smiling at the camera. Seven of the retailers included a number of images showing small quantities of 'cinnamon', either in stick form or in the form of powder. Only one website portrayed prepared food, although none of the featured meals obviously contained 'cinnamon'.

All but one of the ten Vietnamese websites selling star anise included close-up images of the raw spice, while the remaining retailer displayed packaged star anise. Four sites also showed fresh, unharvested star anise growing on trees, with one website including a video of a forest where, it is implied, star anise is harvested. This brief video was rather amateur, with the film uploaded at a 90-degree angle and with no voiceover or explanation. Company facilities were also frequently pictured, with over half the retailers displaying a number of photos of factories or warehouses where the spice was being dried, sorted, or stored in bulk quantities. Workers often appeared in these production photos wearing 'Western' style clothing, although they did not appear to be the focus of the photos; instead, the emphasis was placed on the companies' facilities. Only two star anise retailers offered an image of their office space or employees in professional attire, in contrast to 'cinnamon' retailer websites, which more commonly displayed such imagery.

From our horizontal comparison of the marketing approaches of Vietnam-based online spice wholesalers and retailers at this node of the spice commodity chains, we found little emphasis placed on either the specific locations where the spices were grown or on the cultivators of the spices, and even less emphasis on farmer livelihoods. Instead, quality control and the processing and storage facilities of the wholesalers took centre stage for all three spices, as well as the professionalism of company staff. There was no mention of geographical indications on any of these websites, an observation we return to later, although one retailer mentioned a 'certificate of origin', without any further elaboration. While many of the Vietnamese retailers listed various

international certifications to emphasise that their products meet global quality and safety standards, none made any mention of fair-trade certifications aimed at improving the lives of local spice cultivators and environments.

Take 3. Strategies of international wholesalers and retailers: Creating customer assumptions

Moving along the marketing nodes of the commodity chains, we analysed the websites of spice wholesalers and retailers in North America, Europe, and China. In contrast to the websites of Vietnamese-based spice wholesalers, the websites of North America- and Europe-based wholesalers and retailers tended to highlight specific features of these spices, including their places of origin and their cultivators, albeit sometimes in rather distorted ways.

⁜ *Analysis of black cardamom marketing websites*

All of the five North America-based websites that specifically advertised black cardamom from Vietnam included photos on their websites, with all the websites depicting photos of dried black cardamom pods. Three of the websites also displayed images of the spice on their company's packaging, while only one included photos of prepared food alongside their product. In these images, cardamom was advertised for its uses in hot pot cooking, barbequing, and *phở*. The images of prepared food included models posing as consumers, with one including a woman in chef's attire juggling a variety of ingredients in the air, with the caption 'Magic Seasoning of Master Chef', and another image comprising what appears to be family members cooking together around a stove with the caption 'Cardamom use in hotpot cooking. All nature – smoke dried'. On the same website, the only image showing ethnic minority cultivators (Figure 7.2) portrayed a small group of individuals posed in a forest, with the captions: 'Cardamom Forest in Lao Cai – Viet Nam', and 'Ms. Thanh Nguyen and two Hmong couples in Cardamom forest!' While the minority individuals wore clothes that they might wear to the fields on a regular day, the fifth person, who we assumed was Ms. Thanh Nguyen, wore an odd assortment of clothing from different minority groups, portraying a style that overseas buyers might thus erroneously assume as authentic.

Like the North American websites, all of the 10 European websites selling black cardamom displayed at least one image of the spice, with the majority

Figure 7.2. 'Hai Thien Vietnamese Black Smokey Dried Cardamom Pods'. **Colour** p. 223.

having photos of dried black cardamom pods. One of the ten European retailers also showed an image of fresh cardamom growing in the forest.

Three of the four Chinese retailing websites that claimed to sell Vietnam-sourced black cardamom included images of the spice, while one also presented images of the company itself: a large storage facility or warehouse, and a woman in a business suit sitting at a computer in front of the company's sign. The fourth retailer, who advertised their product as black cardamom, misleadingly had images of green cardamom, along with photos of factory workers who did not appear to be processing cardamom, or any spice for that matter.

Comparing all the websites for Vietnam-sourced black cardamom, we found that all the online Chinese and Vietnamese websites appeared to sell wholesale and to export large quantities of black cardamom, with prices listed per kilogramme or tonne. Most of the European and North American websites, on the other hand, focused on retailing to local consumer markets, selling black cardamom in packages ranging from 25 to 500 grams. The prod-

uct descriptions on the Chinese and Vietnamese websites often emphasised food quality and safety, listing various certifications as a testament to the quality of their product. All the North American websites instead noted the 'all natural' growing or drying processes for their black cardamom. Fairly similar to what we found for the Vietnam-based websites, those based in China focused almost exclusively on the technical specificities of the spice, with only one-quarter of the sites mentioning culinary uses. Approximately 60 per cent of both European and North American retailers included information regarding the culinary uses of the spice, with the remaining retailers focused on medicinal uses. While 80 per cent of the Vietnamese retailers listed the specific province of origin, only two-fifths from North America, and one-quarter from China did so. None of the websites from Europe-based companies mentioned a specific province, likely reflecting the fact that the livelihoods or other characteristics of the cultivators held little interest for European wholesalers when marketing their spices online.

⁜ *Analysis of 'cinnamon' marketing websites*

Each of the ten North America-based websites selling Vietnam-sourced 'cinnamon' included one or more images of raw 'cinnamon', either in the form of 'cinnamon' sticks or as powder. Four of the ten North American online sites listed their product as organic, although only one site included a certification logo to support their claim. Contrary to what we found on North American websites for black cardamom, not a single person was depicted in any of the photos. Only two websites showed images other than the spice itself, and in both cases these images showcased lush, green forests. We were left to assume that these forests were in Vietnam, as location-specific details were not provided. One retailer, also noted in Chapter 4, included a video with the CEO of the company walking through a rural area in northern Vietnam, describing how their company provided school supplies in the area as a social project that 'really need[ed] to get done'. In the video, this social initiative was put forth as a 'sustainable' way for the company to give back to the local communities from whom they sourced their 'cinnamon'.

As was the case with North America-based online retailers, all ten Europe-based websites included at least one image of 'cinnamon', either as sticks or as powder. Two retailers also presented images of food cooked with the spice, namely an apple pie and a warm beverage with 'cinnamon' sprinkled on top – both reminiscent of food consumed during winter

holidays in Europe. One French retailer, Marie-Line House, displayed a series of images showcasing Yao minority women harvesting, carrying, and sorting through 'cinnamon' tree bark. These photos appeared completely staged, with the women dressed in traditional Yao clothing, all perfectly posed and styled with smiles directed at the camera (Figure 7.3.).[3] From Turner, Derks, and Ngô's research in the region with 'cinnamon' cultivators (see Chapter 4), it is clear that Yao farmers never go to their fields in their finest clothes, unless they are going for shamanic rituals or for a burial. This choice of images was notably different from those of cultivators and workers found on Vietnamese and Chinese websites selling 'cinnamon'. The latter tended to portray workers in 'Western-style' clothing in more administrative settings, in addition to a few images with manual workers wearing company work clothes and lowland Vietnamese conical-style hats. Intriguingly, the French-based retailer Marie-Line House (with the contrived photos noted above) mentioned that their 'cinnamon' boasted an '*Indication géographique*' and that the spice was from Yên Bái Province – the only time that we found a GI noted on a website for any of the three spices.[4] However, the same website then added that this was 'la Cannelle de Saïgon', a cinnamon category that does not actually exist, as detailed in Chapter 4 of this collection.

Half of the ten China-based websites that we found selling 'Vietnamese cinnamon' included images of the spice in small quantities, either as sticks or as packaged powder. Eight also displayed a number of images of the spice at various processing stages, with the majority of these images showing large quantities of 'cinnamon' being dried, sorted, or stored at what appeared to be factories or storage facilities. Workers or cultivators were highlighted in images on three websites, with most of these featuring labourers in processing plants. All these workers were dressed in 'Western-style' clothing, but generally wore conical hats as well. One retailer included a collage of photos displaying a lavish office building, a row of cubicles, and a group of office workers in a conference room dressed in formal, professional attire. Nonetheless, these pictures had no features that marked them as being in a specific place or linked to a particular retailer or wholesaler.

3 A nearly identical staged picture with the same women appeared in an online article of Voice of Vietnam in 2016 about 'cinnamon' cultivation reducing poverty in Yên Bái Province (Thua Xuan, 2016). The recurring use of such images reveals that very particular images of 'cinnamon' cultivation are currently in circulation, with very similar discourses attached to them

4 www.amazon.fr/Cannelle-Sa%C3%AFgon-B%C3%A2tons-10cm-Vietnam/dp/B085C5J33Z.

Figure 7.3. A staged image of Yao women wearing their finest traditional clothing and carrying 'cinnamon' bark in a highly unlikely procession. **Colour** p. 224.

Comparing all the 'cinnamon' websites that we analysed, the North America-based websites tended to focus to a greater degree on retail rather than wholesale. These sites also provided potential customers with the history of the spice and its sustainable nature more frequently than Europe-, China-, or Vietnam-based websites. Some of these North American websites were rather romanticised, with histories focused on specific events. One such site elaborated: 'This spice was used as part of funeral rites in ancient Rome as well, including the funeral of Emperor Nero's wife in 65 AD. He is said to have burned a supply of cinnamon that would have lasted Rome an entire year when she was being buried' (Spices Inc., n.d.). Nonetheless, this same website provided a clear distinction between cinnamon and *C. cassia*, a distinction many others did not address. Many North American websites also emphasised the sustainable nature of plantation management. A few North American websites took what we call a 'casual millennial' approach to advertising. These sites included comments such as: 'The silverback gorilla of the cinnamon world, all the younger cinnamons know to stay out of the way'; 'Vietnamese cinnamon is the butt-kicker cinnamon of the cooking world'; 'We also like a pinch added to a batch of ready coffee grounds or espresso powder… to give the everyday cup a bit of pep' (Beanilla, n.d.); or 'It really is a must-try. Once you taste this stuff, nothing else compares…' (Silk Road Spice Merchant, n.d.). Such commentaries revealed little about

the lives and livelihoods of 'cinnamon' cultivators, focusing exclusively on the consumption angle of the spice. Several European retailers also framed cinnamon as a 'weight loss supplement' and 'superfood', and one website even touted that 'a little cinnamon in the coffee can be the difference between losing weight or not at all' (Allt-fraktfritt.se, n.d.). Although the medicinal qualities of the spice were mentioned on Chinese and Vietnamese sites, with one Vietnamese site even framing the spice as an 'indispensable' and 'precious' medicine, this specific 'weight loss' angle was only advanced by European retailers.

⌗ *Analysis of star anise marketing websites*

The majority of North American websites displayed star anise in its raw form, with just over half presenting the spice against a simple white background. Only one North American retailer included images of the spice arranged in dishes, showing the raw or ground spice as it overflowed from an engraved dish onto an embroidered tablecloth. One retailer featured an image of fresh star anise growing on a tree, with the same site also including a botanical drawing of the plant in a separate image. Only one North American retailer showcased the culinary uses of the spice, exhibiting a photo of mulled wine, again focusing on a common beverage enjoyed in Europe and North America during the holiday season.

Like the North American websites, half of the European retailers we found selling Vietnam-sourced star anise added at least one image of the packaged spice, either in raw or ground form. Whole dried fruit were commonly pictured, presented either on a white background, in a serving bowl, or perched on a wooden spoon. One European website featured an image of fresh, unharvested star anise growing on a tree, and another included an unaffiliated video that gave instructions on how to make star anise tea. Only one retailer, the French company 'David Vanille, Épices d'Exception' displayed an image with people. This photo – arranged to look like a postcard – portrayed a young Hmong girl in traditional clothing waving at the camera in front of a lush landscape comprising rice paddies and swidden agriculture (Figure 7.4). Given that star anise trees were absent in the image and that Hmong are not the main cultivators of star anise, one wonders why the retailer chose this picture to promote star anise.

Seven of the ten Chinese websites that sold Vietnamese star anise had at least one image of the raw spice presented in small quantities, either on

Figure 7.4. Imagery used to sell star anise online, with an unlikely cultivator. **Colour** p. 224.

a white background or served in a bowl. These photos emphasised the individual fruit, although images depicting larger quantities of star anise were also frequently featured, with half of the Chinese websites showing bulk quantities stored in cardboard boxes. Three websites included images of processing facilities, with two companies presenting a series of photos showing uniformed factory employees either drying and sorting the spice, or simply smiling in front of the company's facilities. Two of the Chinese websites contained images of both office workers in professional attire and what appeared to be laboratories. Both of these sites emphasised the pharmaceutical and medicinal benefits of star anise, and marketed the spice as an herbal or medicinal product rather than a culinary one. One company that appeared to sell star anise predominantly to the pharmaceutical industry also inserted an image of five European individuals dressed as doctors, smiling at the camera and giving the 'thumbs up'.

When comparing all the star anise websites we analysed, the majority of the Chinese star anise websites appeared to be marketing products to international wholesale buyers, seemingly in the pharmaceutical industry. These websites frequently mentioned shikimic acid, a chemical substance extracted from star anise and a key ingredient in the Tamiflu drug (see Chapter 2). Almost all the Chinese and Vietnamese websites emphasised the medicinal and pharmaceutical uses of the spice, citing various health benefits

ranging from suppressing coughs to curing cancer. Many of the companies from these two countries highlighted the longstanding satisfaction of global customers as a testament to the quality of their product, often including a long list of countries where they had done business.

Almost all the European websites simply stated their star anise's place of origin as 'Vietnam', with the exception of one website that vaguely listed the origin of the spice they sold as 'Vietnam, China'. Three North American websites clearly listed a place of origin for their star anise, and two Chinese websites mentioned the province in which their product was grown. The remaining eight Chinese and seven North American websites simply identified the origin as Vietnam, or advertised the spice as Vietnamese. Four of the North American companies underscored the traditional uses of star anise in Chinese medicine, but the spice's culinary uses nonetheless took centre stage for most North American retailers compared to those from other regions. One North American retailer even blended the medicinal and culinary benefits by describing the spice as 'an intoxicating scent – induces hunger in the kitchen and lust in the bedroom' (Beanilla, n.d.).

North American and European websites appeared to be more concerned with providing the consumer with at least some information regarding the history and cultivation of the spice than Chinese and Vietnamese websites. However, this information often focused on growing techniques – such as when the spice was harvested, how it was dried, and so forth – rather than on the people who cultivated it. One European retailer did describe a local custom in Lạng Sơn Province, noting that 'it is customary… to plant a [star anise] tree at the birth of a child. 15 years later, the star anise harvested will be used to finance that child's education' (Vanille, n.d.). Although it is questionable whether this is a widespread custom, this feel-good story attempted to connect the global consumer to the local producer, albeit in a romanticised and exaggerated way.

RESILIENT FARMERS AND CONFUSED DE-COMMODIFICATION

> As consumer culture adds additional layers of meaning to commodities and the physical distance between production and consumption is increased, the veil that shrouds both social and environmental conditions has become all the more impenetrable (Hudson and Hudson, 2003: 427).

Broadly speaking, the analysis made here reveals that many Vietnam- and China-based wholesalers and retailers advertising online are dedicated to shifting large quantities of the spices in wholesale transactions. This contrasts with their North American and European counterparts, who tend to place greater emphasis on appealing to small-scale retail outlets or individual customers. Vietnam- and China-based websites thus focus far more on business professionalism and practical matters such as wholesale spice storage facilities, factory resources, available quantities, quality assurance, and packaging options. This also corresponds with key informant interviewee explanations of the approaches taken at international trade fairs, where Vietnam- and China-based wholesalers negotiate with traders from around the world, and discussions focus on concerns over quality control, quantities, and guarantees of steady supplies (Interview, 2019). Further along the global commodity chains, the marketing strategies of many North American and European retailing sites oftentimes instrumentalise exoticised images of ethnic minority cultivators instead.

Our findings reveal a rather intriguing cycle of de-commodification – commodification – de-commodification – that is underway along these spice commodity chains. First, the Vietnamese government is promoting geographic indication labels for 'cinnamon' and star anise, which could indicate attempts to de-commodify these products through connecting them to specific places and geographies (see Cook and Crang, 1996; Bidwell et al., 2018b). Second, the Vietnam and China-based wholesalers analysed above achieve the opposite, commonly stripping the crops of links to specific places of cultivation. Adopting a far more functional approach to their deliverables, these actors emphasise their own capacity to serve global markets rather than the specificities of the spices themselves. The spices thus become 'placeless' commodities, viewed chiefly for their exchange value (Appadurai, 2013). Third, US- and Europe-based retailers promote new de-commodification approaches, linking the spices to their 'exotic' ethnic minority growers. These individuals are nonetheless objectified – portrayed as permanently smiling and wearing traditional clothes. In short, such imaginaries have little in common with the realities of farmers, their livelihoods, and their broader agrarian concerns. These imaginaries also obscure the actual social and cultural relations and other realities through which these commodities come to be (Gunderson, 2014). The irony is that through depicting ethnic minorities as such, Western actors serve to perpetrate and reinforce the same

biases and stereotypes that are commonly emphasised in Vietnamese state propaganda regarding upland ethnic minority communities. This 'selective cultural preservation' (Koh, 2004) stresses the exotic, colourful, and benign demonstrations of material culture, including clothes, music, and dances, as these are deemed worthy of attention and support (Michaud and Turner, 2006). However, the question remains – who stands to benefit from these different approaches?

Of the 109 websites analysed through our sampling approach outlined above, only once was a GI of an individual spice briefly mentioned. A specific search for the mention of GIs on *any* Vietnam-sourced spice websites found only one additional website.[5] Thus, if GIs are so rarely utilised by private Vietnam-based exporters or by wholesalers and retailers based in China, Europe, or North America, perhaps it is local officials and outside NGOs that stand to gain the most from this strategy? While this is speculation of course, we return to the quote in Chapter 4, when a foreign spice trader gives his candid opinion of the GI scheme for 'cinnamon' in Yên Bái Province. He is very frank in noting that the GI has not helped local communities to date and that funds have been skimmed off for other purposes. While his reflection is rather sceptical, and there are no doubt positive aspects of the GIs too, it has been challenging to ascertain how the GIs are being utilised in the marketing of these spices beyond state-sponsored billboards and lavish local trade fairs. These may attract local buyers, but given that the Vietnamese market remains comparatively small, the overall benefits of this approach appear rather limited. This suggests that the Vietnamese state's GI strategy is unlikely to help local spice cultivators significantly in the long-term, and is somewhat redundant given the disconnect with final – *international* – nodes of these commodity chains.

One could reason therefore, that if there is a genuine willingness to support local cultivators of these spices in the Sino-Vietnamese borderlands, NGOs, social enterprises, or local government officials could work with ethically motivated retailers to create websites that dig deeper into providing accurate information regarding the livelihoods and everyday experiences of upland cultivators. Such details might add to the non-financial factors that customers weigh up when buying spice products. This would converge with

5 www.vinasamex.com/en/news/vina-samex-raising-the-level-of-cinnamon-and-star-anise-of-vietnam.

the second interpretation of de-commodification that we outlined earlier, namely that de-commodification makes price less central to the value that people allocate to products (Bidwell et al., 2018a). Nonetheless, authors such as Gunderson (2014) would critique such a stance, drawing from the initial interpretation of de-commodification also outlined above, which has closer conceptual links to Marxist analysis and the hidden geographies of food it reveals. These authors have noted that such approaches to encourage de-commodification through 'ethical consumerism' have merely tried to convince concerned consumers that they can buy a commodity and somehow the problems linked with capitalism will diminish. The same reasoning suggests that simply providing more accurate website information allows companies and consumers to ignore the more structurally rooted problems that capitalist relations create in agrarian settings and global commodity chains (see Fridell, 2007; Alkon and McCullen, 2011).

At the end of the day, the ethnic minority farmers cultivating these spices in the Sino-Vietnamese borderlands are well aware that the Vietnamese state is not about to rework lowland–upland socio-economic or political relations in any meaningful way. Moreover, the power relations embedded in these spice crop commodity chains will not invert any time soon, unless culturally sensitive retailers and customers become far more active and engaged than they are currently, as our analysis of 109 spice retail websites has shown. Thus, these farmers will – once again – need to remain resilient, as has been underscored in other chapters of this book, by building on their own traditional ecological knowledge, modes of local knowledge exchange, and through the creation of agro-ecologically sound livelihood diversification approaches.

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CHAPTER 8

Reflections on fragrant frontier entanglements

Sango Mahanty

INTRODUCTION

In tracing the journey of spices from the Sino-Vietnamese borderlands to global buyers, the chapters in this volume have revealed the workings of frontier markets and networks, complex commodity chains, and broader marketing strategies. Focusing on star anise, black cardamom, and 'cinnamon' (or more correctly, probably *C. cassia*), the Introduction explored how the volumes, modalities, and global reach of trading networks have transformed over time. These spices – and others – played important roles in European commercial and regional territorial contests during colonial rule. Now, these three spices command high – if somewhat volatile – prices within global markets. Although their cultivation draws on the specialised knowledge of ethnic minorities in the Sino-Vietnamese borderlands, these spices emerge as more than a niche commodity. The case studies in this volume have shared the lived experiences of ethnic minority spice producers, the organisation of spice networks, processes of value creation, and how various participants benefit from or bear the risks of this spice trade.

These case studies are informed by frontier and borderland studies, livelihoods and agrarian transition debates, and commodity chain analyses. My closing reflections therefore consider the book's contributions to these thematic areas. Given its primary geographical focus on the Sino-Vietnamese borderland–frontier, state interventions have been a recurring theme across the chapters and I first turn to these. I then synthesise some key insights on how upland livelihoods are being reworked within volatile and dynamic markets. Finally, I consider what these ethnographic and comparative case studies add to our understanding of commodity chains. Overall, I find that the uniqueness of these spices lies not only in their particular histories and

production systems, but also in the processes of value creation at play. As with other smallholder frontier commodities, these spice networks are volatile and unruly, posing important risks for the smallholders who become specialised in their production.

MARKETS IN A BORDERLAND–FRONTIER

Although star anise, black cardamom, and 'cinnamon' were significant in pre-colonial trade networks, the notion of a borderland–frontier gained particular significance in the colonial and post-colonial contexts. As Chapter 1 has established, this was when commercial trade was scaled up and intersected with European territorial conquests, thus creating a nexus between markets and state formation.

Frontiers and borderlands are two distinct spatial concepts, the former referring to resource-rich spaces that are targeted for market incorporation (Harvey, 2003; Hall, 2011) and the latter to spaces at the 'margins of the state' (Das and Poole, 2004). In practice, however, the two often overlap in mainland Southeast Asia, as is the case in the Sino-Vietnamese borderlands. State actors have long sought to control such borderland–frontiers for a range of governmental, geopolitical, and accumulative ends (Hall, 2013; Rasmussen and Lund, 2018). In Vietnam, for instance, colonial and post-colonial states have attempted to constrain and govern minority groups and to secure territorial authority (Sowerwine, 2011; McElwee, 2016). Further, although states have strategic interests in frontiers *and* borderlands, the latter can entail especially high governmental and geopolitical stakes. Fluid and ambiguous Zomian spaces (Scott, 2009) can also harbour tense inter-state contests for authority and control (see for instance Barbantseva, 2015; Mahanty, 2018).

State governmental and territorial goals can often be thwarted in practice, however, constructing borderland–frontiers as spaces of 'loose governance' – not necessarily by intent (Hall, 2011; Mahanty, 2018). One reason for this is frequent resistance by ethnic minority communities to state orders that conflict with their social, cultural, and livelihood interests. Several instances of this are discussed in the preceding chapters – for instance, the ambivalent responses of communities to state-distributed star anise seedlings (Chapter 2). Continued cultivation of black cardamom and 'cinnamon' has similarly challenged state forest protection regimes on both sides of the Sino-Vietnamese

border, as cardamom is cultivated in closed-canopy forest areas (Chapters 1, 3 and 6), while in China the felling of 'cinnamon' trees to harvest the bark undermines state reforestation initiatives (Chapter 6). These examples resonate with other illustrations of everyday resistance and non-compliance to state directives in studies of upland minorities in Vietnam (Turner et al., 2015; McElwee, 2016), across these borderlands (Rousseau and Turner, 2018), and elsewhere in the Southeast Asian Massif (Scott, 2009).

At the same time, the cases analysed here show that state market interventions in frontier regions often have the intent of supporting state formation. From a perspective where states are socially constructed and heterogeneous entities (Sharma and Gupta, 2006), state formation at this localised scale involves the negotiation of rule among social actors through various tactics and institutional interventions (Krohn-Hansen and Nustad, 2005). A case in point is geographical indication (GI) certification, which the Vietnamese government has obtained for specific star anise and 'cinnamon' locales. I discuss the role of GIs in value production later, but of interest here is how GIs play into state formation. In Chapter 2, for instance, Turner and Derks reveal that the achievement of GI certification for Lạng Sơn star anise has been viewed by state actors as transforming this product into 'national property' to be 'indefinitely protected by the state'. State actors are also far more enthusiastic than local communities about GI certification for Yên Bái 'cinnamon'. Here, state actors aim to distinguish an exoticised and more refined Vietnamese commodity from competing products from China and India that have been characterised as inferior and mass-produced (Chapter 4). In this case, the GI seems to support state formation through a form of 'certification nationalism' with regards to what is actually quite fluid knowledge concerning 'cinnamon' taxonomies.

State formation and market intervention can be an uncomfortable fit, which sends contradictory signals to local communities. In one example discussed here, Chinese state actors encouraged 'cinnamon' cultivation within tree planting projects to promote economic and conservation benefits, only to later restrict their harvest by local communities in the name of forest protection (Chapter 6). Unsurprisingly, such actions result in communities becoming increasingly suspicious of state interventions to simplify or concentrate local livelihoods around specific commodity crops that would render their livelihoods and lives more legible and governable (see also Chapters 2 and 3). These frictions between state and community

goals tend to make many state market interventions irrelevant or ineffective, as several of these cases show.

More broadly across Southeast Asia, governments and donors have supported cash crops as an important plank for economic development (De Koninck and Rousseau, 2012). Land governance and agricultural policies in lowland agricultural zones have often nudged smallholders towards firmer market engagement (Rigg et al., 2016). In this borderland frontier, however, the contradictory nature of state market interventions is grasped well by ethnic minority farmers. Furthermore, the cultural values and the livelihood predispositions and knowledge of borderland communities often serve to equivocate state authority (Das and Poole, 2004; Sharma and Gupta, 2006; Turner et al., 2015). Thus, even as state actors promote the same spice crops that communities have traded for generations, communities anticipate that further concentrating their livelihoods around these commodities – in specific arrangements that the state is encouraging – might not serve their interests.

RESISTING LIVELIHOOD SIMPLIFICATIONS

In light of the state–society dynamics described above, the persistence of diverse livelihoods is an important feature of the upland communities described in this volume. To some extent, the specific cultivation requirements of these three spices have helped to enable and sustain such livelihood mosaics. Unlike many other smallholder boom crops (e.g. Hall, 2011; Castella et al., 2016; Mahanty and Milne, 2016), star anise, black cardamom, and 'cinnamon' can be cultivated alongside staple crops. Their production is therefore relatively flexible within wider cropping patterns and livelihood constellations. During times of market risk or uncertainty – such as when the snow storms of 2016 obliterated black cardamom crops (Chapters 3 and 5) – farmers could readily turn to other crops and products. Indeed as Rousseau and Xu found in Chapter 5, farmers maintain a cautious relationship to their black cardamom crops, regarding them as valuable but unreliable, not only because of climate variability but also because cultivation can bring farmers into regulatory conflict with state actors, as noted above. Similarly, star anise is valued as a potential injection of capital to cover larger household costs, but remains subject to market uncertainty (Chapter 2). For most community members, spices are thus part of diverse livelihood activities, despite some households choosing to specialise (Chapter 3).

The discussion in this volume of livelihood diversification and the safeguards that this provides adds to a growing body of evidence regarding the importance of upland agricultural diversity. In spite of state and civil society efforts to promote specific crops and commodities, the majority of farmer households studied here embraced more diverse livelihood strategies to help them to weather market, climate, and political uncertainties (Chapters 3, 5, and 6). In contrast, villagers who have more actively specialised in specific crops or livelihood activities have often been left vulnerable to sudden market and policy shifts (Chapters 2 and 3). Notably, diversification has not completely protected small-scale, ethnic minority farmers from the livelihood pains wrought by market bust cycles. Yet the relatively low capital investment needed to grow or harvest these three spices, and the capacity to maintain other crops alongside them, does seem to provide some security. This contrasts with worrying trends emerging in smallholder market production elsewhere in this region, such as growing household debt and land loss (e.g. Mahanty and Milne, 2016; Green, 2020).

Community predispositions to maintain diverse livelihoods have also made them highly dynamic market actors. Slack (Chapter 3), for instance, has found that communities cultivating black cardamom pursue a range of livelihood diversification options that encompass on- and off-farm activities, as well as migration (cf. Ellis, 2000). For them, black cardamom can be intensified or scaled back as conditions allow and warrant, although a crop can take four to five years to mature (or recover from an extreme weather event). Indeed, temporality is an important factor highlighted through these cases. Star anise trees take ten to twelve years before bearing fruit, while 'cinnamon' farmers tend to wait over ten years before felling 'cinnamon' trees for their bark. It is thus not easy to suddenly scale-up harvest yields when prices rise, and underscores the importance of parallel livelihood activities. This need for caution and for taking a long-term perspective confirms other work on upland livelihoods in this region, where communities are inclined to maintain diverse livelihoods (Turner et al., 2015), and engage in complex market webs that go beyond single commodities (Sikor and Pham, 2005; Mahanty, 2022). This predisposition explains some of the frictions with state market interventions that promote a greater dependence upon specific commodities. It also raises the question, as upland livelihoods diversify further, of how spices will fit within future livelihood portfolios and what that will mean for the spice trade.

SPICY COMMODITY CHAINS

Spices provide a valuable lens on commodity chains that involve smallholder cultivators and producers. These case studies affirm what is already known about smallholder commodity chains, while adding further insights and reflections regarding their actors, dynamics, and tensions. Most such chains involve highly diverse actors, and tend to concentrate power and benefits away from where the commodities are produced (Hopkins and Wallerstein, 1986; Gereffi et al., 1994). Similarly, the spice commodity chains analysed here involve a range of actors such as cultivators, small-scale traders, state actors, commercial processing industries, exporters, international companies, and consumers, with benefits accruing further along the chains, as Kee and Zuberec point out in Chapter 7. Asymmetrical property and market institutions (Ribot, 1998; Neimark, 2010) are influential in shaping a range of benefits and risks for different actors (Chapters 3 and 7). Spices are also classic cases of commodities whose production is deeply embedded within specific social and cultural milieux (Fine and Leopold, 1993; Fine et al., 2018). Qualities such as trust and enduring relationships observed in other smallholder networks are found to be as important in these spice trades (e.g. Masuku and Kirsten, 2004; Challis and Murray, 2011). As such, these spices confirm many established patterns for other smallholder commodity networks.

Moreover, these spice trades have added novel insights for commodity chain studies with regards to value creation. For certain kinds of products, their unique or diverse materialities can be strategically mobilised to differentiate their value from other competing products (see Crang et al., 2012 on recyclables; Bidwell et al., 2018 on organic agricultural products). It is clearly illustrated here that these spices are similar. Geographical indications or GI certification, discussed earlier in relation to state formation, have been key here. In Chapter 4, Derks, Turner, and Ngô explore how a GI has been mobilised to strengthen the demand and value associated with 'Vietnamese cinnamon'. Usually, commodity chains serve the process of commodity fetishisation, whereby commodities are removed from their source locations while their social and environmental origins are obscured. In the case of this 'cinnamon', however, GI certification attempts to do the reverse. In effect, GI certification seems to reinsert and valorise geographical information, albeit not necessarily in a way that benefits local farmers (Chapter 4). In Chapter 7, Kee and Zuberec provide further examples of the social origins of spices

being reinserted within marketing campaigns that very specifically tie a product to its ethnic minority and upland origins in Vietnam. Such campaigns have usually had an exoticised flavour, while making dubious claims about livelihood benefits for farmers. As with the GI for 'Vietnamese cinnamon', Kee and Zuberec have found state actors and international marketers to be the main advocates and beneficiaries of these value addition tactics.

On the face of it, these strategies to reveal the social and environmental origins of particular spices might appear to 'remove the veil' of market capitalism – a process known as 'de-commodification' (Gunderson, 2014). As Derks, Turner, and Ngô showed in Chapter 4, however, this practice has followed a strong market logic. In an explicit bid to enhance market value, state actors and international marketers have sought to create a consumer connection with the people and places of origin, with the goal of building demand and gaining a price premium (also shown in Chapter 7). Parallels can be drawn with other forms of product certification that aim to enhance value, rather than to address exploitation within capitalist markets (Bidwell et al., 2018). Thus, it is ultimately market logic at play here rather than the re-embedding of commodities.

Another important finding from this volume is the potential for production booms and busts, even for such specialized commodities. In looking at why spice trading has periodically 'gone bust', in Chapter 6, Langill and Zuo add to recent work on 'disarticulation' (Berndt and Boeckler, 2009) or 'rupture' in commodity networks. However, they document different causes from those seen for a number of other smallholder crops (Mahanty and Milne, 2016; Castella et al., forthcoming). Adding to this debate, Borras and colleagues (Borras Jr. et al., 2016) define flex crops as those with diverse uses and that usually have a high degree of substitutability – for instance starch can be sourced from cassava, corn, or other starchy crops. The latter characteristic can make markets for flex crops volatile due to highly changeable demand. In Turner and Derks' exploration of the flex qualities of star anise in Chapter 2, the lab-based production of the active ingredient in star anise needed for Tamiflu production became an alternative to star anise. This in turn tempered the boom in demand for the spice, similar to the flex crops discussed by Borras Jr. et al. For black cardamom and 'cinnamon', market volatility has arisen from a mix of political conditions that include inappropriate state interventions and environmental conditions, especially the uncertainty wrought by a more variable climate (Chapters 3, 5, and 6).

In relation to value then, the spices appear, as a whole, to be less akin to flex crops and more akin to specialised or certified products. These investigations also show how a partial re-embedding of commodity origins into product marketing can be used strategically – especially by more powerful actors further away from the sites of cultivation.

LOOKING AHEAD

The cases studies in this volume speak to the social and cultural significance of spices as commodities. These three spices remain the specific domain of ethnic minority producers, who tie these agro-food commodities to specialised knowledge systems and social relations. The authors here have dived into the lived experiences of these cultivators, who give these commodities a vital social life that infuses the journeys of these spices through global commodity chains.

By drawing on concepts from frontier and borderland studies, this book has also foregrounded the fraught role of state actors and state formation within such commodity chains. The cases collectively confirm that borderland–frontiers are specific sites of interest for states, but that market, territorial, and political agendas do not neatly align in processes of state formation. What is more, state engagements with markets often meet local resistance, as state agendas so often attempt to push upland communities towards simplified livelihoods that would render communities more vulnerable along numerous axes.

The persistence of diverse upland livelihoods has so far offered some security to upland spice producers, even as state actors work to simplify, streamline, and make legible their livelihoods. Ultimately this volume opens up the question of where these communities, livelihood trajectories, and state engagements are heading. Will upland communities be able to maintain diverse livelihood portfolios? To what extent will the specialised knowledge needed to harvest spices be diluted through ongoing agrarian change and state interventions? And how can these communities cope with growing levels of climate uncertainty? We have here a borderland–frontier in a state of flux, where social and environmental trajectories are diverse, dynamic, and consequential, not least for the ethnic minority communities who inhabit them.

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AFTERWORD

Contemplating the initial impacts of COVID-19

Sarah Turner

As this collection heads to publication, we continue to live through the COVID-19 pandemic, an extraordinary period with far-reaching impacts for the lives and livelihoods of thousands of individuals involved with the global spice trade. The pandemic initially caused global demand for spices to skyrocket, with consumers stockpiling spices for home-cooking and because of the supposed health benefits of specific varieties. However, global trade networks for spices faced important disruptions as borders closed, and collection and processing activities were thrown into disarray (Centre for the Promotion of Imports from developing countries, 2020). In late 2020, the British Broadcasting Corporation (BBC) reported that the early months of the pandemic had almost brought the spice trade – which had 'spanned the world for thousands of years' – to a standstill (Fredenburgh, 2020). It is not yet known how these events will continue to affect the trade of spices originating from the Sino-Vietnamese uplands, but this afterword reflects on preliminary reports we have received regarding the initial impacts of the pandemic on the individuals focused upon in this collection and their livelihoods. These early reflections come from text message conversations and phone calls with cultivators, exporters, and in-country research assistants, as well as with our academic collaborators in China and Vietnam. We have also spoken to some of our original informants who import spices to the Global North.

As of February 2022, it appears – thankfully – that many of the cultivators of these three spices based in the Sino-Vietnamese uplands have been able to cope to a large degree with this livelihood shock by increasing their reliance upon the semi-subsistence parts of their livelihoods. Indeed, it seems from discussions to date that, by never fully abandoning household gardens and staple crops such as rice or maize, most farmers have been able to pivot their

livelihoods back towards greater subsistence leanings and have managed to get by. Moreover, cases of COVID-19 have been relatively low in these uplands to date, and we have been relieved to hear from Hmong, Yao, and Hani farmers in upland Vietnam that they received their first vaccination doses in October 2021.

For trade intermediaries based in the Vietnamese uplands, the story has been more mixed. These individuals have either stockpiled spices (especially black cardamom) with the hopes of greater returns in the future, or they have continued to trade. The quantity of exports leaving Vietnam by air freight has dropped markedly, but exporters noted that they have been able to continue to send shipments to Europe and the US. Trade across the borderline to China has also persisted, albeit at lower levels than usual, and at some sites, the borderline has become far more tightly controlled than in the past. This has meant that farmers and smaller-scale intermediaries who previously relied on 'informal' or quasi-legal border crossing points to transport their spices to China have seen this option close. However, trade has continued for intermediaries willing to pay the fees and taxes required to pass through larger, official border crossing points, or who accept that they now need to supply larger traders willing to do so (thereby adding another node to these spice commodity chains). Nonetheless, these tighter controls have resulted in lost profits and 'belt-tightening'. Again, for those with access to land, a partial return to semi-subsistence livelihoods has been a common coping mechanism.

On the Yunnan side of the border, farmers who have been more fully integrated into the cash economy and significantly less engaged in on-going semi-subsistence agriculture appear to have been harder hit. While some have pivoted to their former, mixed farming approaches, others have needed to reduce their spending significantly, rely on savings, and/or sell assets such as gold, jewellery, or livestock. Meanwhile, trade intermediaries have struggled to access cultivation areas due to regional lockdowns and roadblocks. We also envision that these same restrictive measures have impacted the capacity of cultivators to further engage in wage labour, a typical strategy to cope with livelihood shocks on the China side of the border.

Intriguingly, we are now reading reports that black cardamom is being used in the clinical treatment of patients with COVID-19 in China (Ma et al., 2021). While this has yet to result in an important rise in demand and a possible cardamom cash boom, the similarities with the case of the Tamiflu anti-influenza drug causing a star anise cash boom, which we reported on

in Chapter 2, are fascinating. There has also been an increasing number of academic articles reporting on the potential application of traditional medicines for COVID-19 treatment drugs. This has included a focus on the possibility that the compound cinnamaldehyde – found in high concentrations in 'cinnamon' – could play a role in such medicines (Asif et al., 2020; see also Ooi et al., 2006). Star anise essential oil has also been part of COVID-19 related 'drug discovery attempts' (Sharanya et al., 2021: 6).

Clearly, the longer-term ripple effects of the impacts of the pandemic on local livelihoods, communities, commodity chains, supply routes, and global demand are not yet known. But, at least for the time being, it appears – as in the past when facing important livelihood shocks – that the majority of ethnic minority farmers cultivating spices in this fragrant frontier will be able to weather this storm.

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Photo: Zuo Z.

Figure 6.1. 'Cinnamon' tree trial plots at Honghe Research Institute of Tropical Agricultural Science, Yunnan Province, China. Text p. 165.

Photo: Zuo Z.

Figure 6.2. Diseased star anise trees in Maguan County, Wenshan Prefecture, Yunnan Province, China. Text p. 171.

Source: New Century Vietnam Organic Company Limited, n.d.

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Source: Hai Thien Limited Company, n.d.

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Source: Marie-Line House, n.d.

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Source: Vanille, n.d.

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