

DOCTOR OF PHILOSOPHY IN MANAGEMENT

**INSTITUTIONAL DESIGN FOR MARKET PARTICIPATION
AND LIVELIHOOD SECURITY OF FARMERS:
CASE STUDY OF AN AGRICULTURAL MARKETING COOPERATIVE**

By

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भारतीय प्रबंध संस्थान बेंगलूर
INDIAN INSTITUTE OF MANAGEMENT
BANGALORE

2023

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A Dissertation submitted in Partial Fulfillment of the Requirements for the
degree of Doctor of Philosophy at

INDIAN INSTITUTE OF MANAGEMENT BANGALORE

2023

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To my father

ACKNOWLEDGEMENTS

This dissertation owes a lot to a host of people whom I met before and during my doctoral studies. I am deeply indebted to Prof. Gopal Naik, Prof. Hema Swaminathan, and Prof. Rajalaxmi Kamath for their guidance, support, and encouragement in helping me complete this dissertation. Prof. Naik's role was instrumental in sharpening the question, identifying and securing access to field sites, and in shaping the thesis to its current form. He gave me absolute freedom to pursue my interests, while ensuring that I stayed on track. His deep insights on smallholder agriculture and agricultural markets added conceptual as well as empirical richness to the study. Thanks to his strong local network, I could successfully undertake field work even when the COVID-19 challenges were looming large.

Prof. Hema's sharp questions and inputs on household survey helped me dig deeper. Her timely pieces of advice helped me tide over many a crisis. Prof. Rajalaxmi Kamath painstakingly read the draft versions and provided detailed feedback. Her pointed suggestions helped me improve the theoretical framework and draw useful insights from field work. I have also immensely benefitted from discussions with Prof. M S Sriram and Prof. Deepak Malghan. Working with both in the first two years of doctoral studies laid foundation for this dissertation. Prof. Sriram's vast knowledge on cooperatives and agriculture sector and his wide network added much value to my work. My Fulbright Fellowship, that helped me spend two semesters at Cornell University, would not have been possible without the proactive and unconditional support provided by Prof. Malghan. I am grateful to him.

I would like to thank Prof. Prabhu Pingali for giving me the opportunity to conduct part of my doctoral research at Cornell University. Ms. Pratibha Nair from USIEF India was ever supportive and ensured that I reached the United States despite the challenges posed by COVID-19. Ms. Shinu pitched in to help me tide over the last-minute hurdles. Brenda, M-C, and Terry of TATA-Cornell Institute (TCI) made sure that I settled down smoothly without any hassles and had a pleasant stay throughout. Feedback from Dr. Mathew, Dr. Andaleeb, Prof. Mark Constatas, Prof. Todd Schmitt, and the participants of the research group meetings helped me improve the analysis and refine the arguments in the dissertation. I would also like to thank Prof. Kaushik Basu, Prof. Chris Barrett, Prof. Maureen Waller, and Prof. Nagesh Gavirneni for patiently listening to my ideas and for giving constructive feedback. Sincere thanks are due to Mathew, Andaleeb, Raghav, Shubh, Kumari, Misha, and Ali for treating me as part of the TCI family. Nick, Kavya, and Kasim were great house mates. Thanks to them for making me feel at home and for the several sweet memories. Friendship with Sai, Kripa, Anna, Michelle, Alexa, and Marley made my time in Ithaca enjoyable.

I would also like to acknowledge the support and cooperation provided by Totgars' Cooperative Sale Society (TSS), Sirsi in conducting the field study. TSS generously shared archived documents, data stored in its IT systems, and gave opportunities to freely interact with its members and employees. I am thankful to Mr. Raveesh Hegde, Mr. Vinayak Hegde, Mr. Gopal Hegde, Mr. Ravichandra Hegde, Mr. Seetaram Hegde, and Mr. Narayan Hegde for freewheeling discussions. They also introduced me to several arecanut farmers and traders in Sirsi. I am extremely grateful to the respondents to the semi-structured interviews and household survey for sharing details about their life. On several occasions, I was pleasantly surprised by the warm welcome extended by the farmers. I still relish the tasty meals I had in several of their homes. Special thanks to Deeraj for helping me with local logistics in Sirsi and data collection. The field team – Amar, Vinayak, Anant, Nandan, Umesh – worked with utmost sincerity and flexibility under difficult conditions. I wouldn't have been able to conduct household survey without their timely contributions.

IIM Bangalore (IIMB) offered a great ecosystem to pursue doctoral research. My year-long apprenticeship with Prof. Raghuram was productive, demanding, and a great learning opportunity. Ramesh sir, Aju Varghese, Sindhu, and Nazreen in the Director's office extended cordial support. I have benefitted from the thoughtful insights of Prof. Abhoy Ojha, Prof. Arnab Mukherjee, Prof. Anil Suraj, Prof. Shabana Mitra, Prof. Soham Sahoo, and Prof. Arpit Shah during the discussions both inside and outside classrooms. Assisting Prof. Raghuram, Prof. Gopal Naik, Prof. Deepak Malghan, Prof. Ravi Anshuman, Prof. Soham Sahoo, Prof. Allen Ugargol and Prof. Anil Suraj in the courses at IIMB was enriching experience in more ways than one. The IRB Chairperson and team processed my application and gave approval for undertaking field study.

Prof. Ananth Krishnamurthy stood as a strong pillar of support whenever needed. As Chairperson of the Doctoral Program, he remained approachable, nudged to be mindful of timelines, and took empathetic stand when faced with challenges. I am grateful to him for the support extended to me in my doctoral journey. Ms. Anjali, Ms. Ashoka, Ms. Shilpa, and Mr. Srinath guided me through the administrative hurdles, responded to my queries with patience, and were super-quick in providing necessary documentary support. Sankarappa sir and Kanakesh were always ready to help. IIMB library provided all the resources needed for research and conducive spaces for intellectual meandering. Mihir sir, Rajesha, Mansoor Khan, and Mansoor Koormath were always friendly and supportive. A significant share of my time on the campus was spent in the library. Ms. Sasikala, Ms. Kavitha, Mr. Raju, and Mr. Chandru of CPP office extended warmth and support. I appreciate the help of Ms. Komala, Mr. Nagaraj, Ms. Yeshaswini, Mr. Krishnamurthy, Mr. Pradip Sahoo and an army of gardening, cleaning, mess, and security staff for helping me have a pleasant stay on campus.

I was fortunate to have joined the Public Policy cohort of Soumya and Vinay, two strong pillars of support. The camaraderie that we shared helped me sail through the rigorous course work at IIMB and kept me sane through my doctoral journey. I feel truly lucky to have earned the friendship of Velavan, Anand, Ravikanth, and Jose Manu all of whom have been ever loyal and encouraging. I was fortunate to have interacted and received plenty of counsel from Amol, Aparna, Jothsna, Sachi, Vivek, Anurag, and Shooj. Shivangi, Gaurav, Ashish, and Chandan kept me active in the squash court. My doctoral experience would have been incomplete without the discussions and company of Srikanth, Ravi, Ankur, Kshitij, Manu, Chhavi, Srijith, Satarupa, Giri, Rehan, Rana, Narayanan, Anupama, Bibek, Aishvarya, Tanya, Manjunath, Rajashik, Sajad, and Anirudh.

I dedicate this dissertation to my father, Dr. G. Gopikuttan, who has always believed in me and has remained a source of inspiration. It was from him that I imbibed the spirit of inquiry, alongside a set of values. My mother, N P Thankamani, continues to provide a strong support system and has a unique way of knowing what is right for me. I am grateful to both for letting me explore and make choices without having to worry about anything. I spent my childhood witnessing my father engrossed in his research and guiding several budding scholars. Achooty and Kunjoos hardly had the chance to spend quality time with their father, thanks to my long absence from home. My wife, Lakshmi, had to put up with my idiosyncrasies, while juggling a demanding job and family responsibilities. She has been my go-to person for all the eleventh-hour emergencies. I thank my family for their unflinching support.

CONTENTS

Abstract.....	xii
1 Introduction	1
1.1 Agriculture in development	1
1.2 The Indian context.....	4
1.3 This study.....	21
2 Agricultural growth, state policies, and farmers' welfare in India.....	31
2.1 Introduction.....	31
2.2 State interventions and the trajectory of policy evolution.....	35
2.3 Evolution of the nature of state interventions.....	53
2.4 Agricultural policies and farmers' welfare.....	57
2.5 Conclusion	67
2.6 Appendix.....	68
3 Institutions for market linkage: Review of design and effectiveness	74
3.1 Introduction.....	74
3.2 Present status of market linkage.....	75
3.3 Regulated wholesale markets	83
3.4 Direct Marketing.....	87
3.5 Contract Farming.....	88
3.6 Farmer Producer Organizations	90
3.7 Discussion.....	92
3.8 Research Questions.....	95
4 Inclusive market participation of smallholder farmers and their livelihood security: Theoretical framework for an institutional design 	97
4.1 Introduction.....	97
4.2 Definitions and conceptual foundations.....	100
4.3 Framework for institutional design	125
5 Empirical examination of the institutional design	138
5.1 Introduction.....	138
5.2 Institutional design of TSS	143
5.3 Research setting, data, and methods.....	154
5.4 Summary.....	180

6	Livelihood security of farmer households.....	181
6.1	Introduction.....	181
6.2	Integrating access to disparate markets	181
6.3	Promoting livelihood security.....	186
6.4	How does the effect of design vary across landholding categories?	213
6.5	Discussion	214
7	Organizational sustainability of cooperatives	220
7.1	Introduction.....	220
7.2	Trajectory of TSS.....	221
7.3	Adaptability to dynamic changes.....	221
7.4	Manifestation of hybridity	224
7.5	Managing hybridity.....	231
7.6	Mechanisms for managing hybridity.....	241
8	Conclusion.....	248
8.1	Introduction.....	248
8.2	Livelihood security of farmers	250
8.3	Organizational sustainability of cooperatives	252
8.4	Contributions of the study	254
8.5	Limitations of the study.....	259
8.6	Future research.....	260
9	References.....	262

LIST OF TABLES

Table 1.1: Fertilizer consumption and production.....	11
Table 1.2: Improvements in road infrastructure	12
Table 1.3: State-wise agricultural households as percentage of rural households	14
Table 1.4: Household income and net returns from agriculture for agricultural households.	16
Table 2.1: Wheat procurement price	43
Table 2.2: Summary of state interventions.....	53
Table 3.1: Market density and share of quantity sold to local private traders – state-wise comparison	78
Table 3.2: Size class wise share of sales to various agencies	79
Table 3.3: Storage capacity in India	80
Table 3.4: Growth in FCI storage capacity	81
Table 3.5: Gap in Cold-chain Infrastructure	81
Table 3.6: Distribution of storage capacity with FCI.....	82
Table 5.1: Membership details.....	144
Table 5.2: Types of loans provided by TSS and their composition.....	150
Table 5.3: Storage facilities provided by TSS.....	152
Table 5.4: Development indicators.....	157
Table 5.5: Value and share of arecanut in agricultural production of India	158
Table 5.6: State wise area, production, and yield of arecanut in India	159
Table 5.7: Area, production, and yield of arecanut in Uttara Kannada district	160
Table 5.8: Pattern of arecanut sales at national, state, and district levels	161
Table 5.9: Market arrival of arecanut and pepper in APMC, Sirsi	163
Table 5.10: Number of buyers and quantity purchased in APMC, Sirsi.....	163
Table 5.11: Summary of data sources.....	164
Table 5.12: Distribution of households based on quartile	172
Table 5.13: Timeline of events	173
Table 5.14: Descriptive Statistics of households.....	176
Table 5.15: Key variables of interest	179
Table 5.16: Profile of respondent households categorized based on the size of land holding	180
Table 6.1: Details of borrowings in the past 5 years	183
Table 6.2: Purchase from TSS through <i>Asami</i> account route	185
Table 6.3: Mean <i>mandi share</i> for households categorised based on distance to market	187
Table 6.4: Access to input market.....	190

Table 6.5: Participation of farmer categories in APMC Sirsi.....	191
Table 6.6: Access to output market	191
Table 6.7: Collateral type by source of borrowing	192
Table 6.8: Relationship between borrowing and land owned	193
Table 6.9: Functioning of TSS saleyard	193
Table 6.10: Relationship between lot size and price in the saleyard	195
Table 6.11: Relationship between market arrival of arecanut to TSS saleyard and quantity purchased by TSS.....	197
Table 6.12: Credit sources during rainy and harvest seasons.....	199
Table 6.13: Factors affecting borrowing behaviour: Results of multinomial logistic regression	200
Table 6.14: Source of borrowing and use of loan amount outside agriculture	201
Table 6.15: Factors determining use of credit for non-agricultural purposes.....	202
Table 6.16: Distribution of households based on reason for choosing sales outlet.....	206
Table 6.17: Factors determining the choice sales outlet for disposing arecanut	207
Table 6.18: Distribution of households based on extent of arecanut sale	208
Table 6.19: Determinants of extent of arecanut sale by households	209
Table 6.20: Determinants of holding period for arecanut.....	210
Table 6.21: Distribution of households based on reason for sale of produce.....	211
Table 6.22: Users' perception of services provided by TSS	213
Table 7.1: Orientation of activities	225
Table 7.2: Purchase incentives for members vs non-members	228
Table 7.3: Sales and net profit of selected business divisions	235
Table 7.4: Additional income earned by farmers.....	237

LIST OF FIGURES

Figure 1.1: Contribution of agriculture to GDP and employment - World	2
Figure 1.2: Contribution of agriculture to GDP and employment - India	5
Figure 1.3: Dynamics of Agriculture and Allied Sector GDP	8
Figure 1.4: Foodgrains production and net availability.....	9
Figure 1.5: Production trends of major crops	9
Figure 1.6: Yield growth.....	10
Figure 1.7: Percentage of gross cropped area under crops	10
Figure 1.8: Improvements in net irrigated area.....	11
Figure 1.9: Institutional vs non-institutional agricultural credit	12
Figure 1.10: Farmer suicides.....	17
Figure 2.1: Broad phases of policy evolution	36
Figure 2.2: Public sector outlay for agriculture sector	41
Figure 3.1: Agency-wise share of quantity sold for major crops (All India)	76
Figure 4.1: Market participation and livelihood security	114
Figure 4.2: Organizational sustainability as synergistic hybridity	122
Figure 4.3: Designing cooperatives	123
Figure 4.4: Integration of functions for livelihood security	126
Figure 4.5: Organizational sustainability	136
Figure 4.6: Institutional design	137
Figure 5.1: Operational area of TSS	142
Figure 5.2: Schematic representation of services provided by TSS.....	146
Figure 5.3: Market arrival of arecanut to APMC, Sirsi and purchases by TSS	148
Figure 6.1: Market arrival vs TSS purchase (Rashi & Chali varieties).....	196
Figure 6.2: Market arrival and price movement in TSS sale yard.....	211
Figure 6.3: Distribution of lot size.....	212
Figure 6.4: Lot size distribution across the years	212
Figure 6.5: Institutional design of TSS for livelihood security.....	219
Figure 7.1: Share of arecanut trading in total revenue	230
Figure 7.2: Annual net profit	235
Figure 7.3: Distribution of net profit	236
Figure 7.4: Managing hybridity in TSS.....	247

ACRONYMS

APC	Agricultural Prices Commission
APMC	Agriculture Produce Market Committee
APMRA	Agricultural Produce Market Regulation Act
ARC	Congress Agrarian Reforms Committee
BPL	Below Poverty Line
CACP	Commission for Agricultural Costs & Prices
CAMPCO	Cocoa Marketing and Processing Co-operative Limited
CMIE	Centre for Monitoring Indian Economy
ECA	Essential Commodities Act
e-NAM	Electronic National Agricultural Market
FAO	United Nations Food and Agriculture Organization
FCI	Food Corporation of India
FPO	Farmer Producer Organization
FYP	Five Year Plan
GDP	Gross Domestic Product
HYV	High Yielding Variety
IAD	Institutional Analysis and Development
IMF	International Monetary Fund
IRDP	Integrated Rural Development Programme
ISAM	Integrated Scheme for Agricultural Marketing
LDC	Less Developed Countries
MIS	Market Intervention Scheme
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MSP	Minimum Support Prices
NAC	National Advisory Council
NAFED	National Agricultural Cooperative Marketing Federation of India Ltd.
NAP	National Agricultural Policy
NCEUS	National Commission for Enterprises in the Unorganized Sector
NCF	National Commission for Farmers
NSS	National Sample Survey
PACS	Primary Agricultural Credit Societies
PC	Producer Company
PDS	Public Distribution System
RBI	Reserve Bank of India
SAS	Situation Assessment Survey
SFAC	Small Farmers' Agri-Business Consortium
SFDA	Small Farmers Development Agency
TMS	Taluka Agricultural Produce Co-operative Marketing Society Limited
TSS	Totgars' Co-operative Sale Society
WDR	World Development Report
WTO	World Trade Organization

Abstract

Indian agricultural sector presents a paradoxical scenario: significant gains made in agricultural production, productivity, trade, and infrastructure co-exist with poor livelihood conditions for a large majority of agricultural producers. Persistent distress and non-remunerative returns to smallholder farmers have led policy and academic circles in the country to raise concerns about the viability of agriculture as a livelihood source (Dev, 2018; NITI Aayog, 2015). Discontent of the farming community is manifested in several forms such as agitations and protests, sometimes even farmer suicides.

Globally, there is a resurgent interest in agriculture-led development as it is identified to be more effective in inclusive development and poverty reduction (Christiaensen et al., 2011; World Bank, 2007). A significant element of the agriculture-for-development agenda is improving smallholder agriculture through productivity enhancement and better market linkages. Alluding to this idea, a series of policy-led institutional solutions were introduced in India in the past two decades with explicit emphasis on enabling greater market participation of farmers. Farmers' welfare has explicitly been stated as a policy agenda. Yet, smallholders remain as a vulnerable group, faced with multiple risks and structural constraints. They face higher poverty level (NCEUS, 2008) and dis-savings (Dev, 2012). Recent estimates suggest that market-oriented reforms did not have any positive impact on real farm incomes (Basu & Misra, 2022). There is ample evidence to show that traditionally marketing arrangements in India have generated skewed benefits, biased against smallholder farmers (Chatterjee & Kapur, 2016; Goyal, 2010) and there is a general tendency to exclude them (Singh, 2012).

The policy focus in the Indian context for improving farmers' welfare has largely been on enhancing farm income. In addition to the net income from agriculture, the livelihood conditions of farmer households depend on idiosyncratic, and covariate risks they face. As farmers become more commercial, they tend to face greater risks. The risks can arise from not only within agriculture but also outside it from facets relevant to farmer households with cascading effects.

Increasingly, there is a recognition that farmers' risk behaviour is better understood by analyzing risks at household level instead of a narrow view at farm level (Wauters et al., 2015). Furthermore, gainful market participation is a knowledge-intensive activity as the farmers must seek, gather, process, and act on information in input and output markets. Smallholders, unlike their large landholding counterparts, lack capabilities to effectively participate in such markets. For smallholders, the aggregate risk compared to their risk bearing ability is much larger. Predisposition of market-linkage institutional designs with enhancing farm income make them unsuccessful to adequately address stability of income, seasonality and degrees of risks faced by farmer households. Therefore, there is merit in revisiting the design of market-linkage institutions for achieving the desired outcomes.

In this context, the motivation for this dissertation stems from the broad concern of farmers' welfare and the gap in our understanding of the design of market linkage institutions for improving it. Much of the policy focus in the Indian context for improving farmers' welfare has been on enhancing farm income. Deviating from this conventional focus, we are concerned with livelihood security of farmer households. The discourse on household livelihood security is dominated by diversification strategies (Barrett et al., 2001; Ellis, 1998, 2000; Ellis & Freeman, 2004) that advocate moving away from agriculture. We seek the possibility of promoting livelihood security of farmer households by dropping the anchor in agriculture. The central question that this study engages with is "what are the key elements in the design of a market-linkage institution that are essential to promote livelihood security of smallholder farmers?". This dissertation pivots on designing market linkage institutions for farmers to promote their livelihood security through gainful market participation.

To explicate the context, we trace the evolution of policies and institutions in the realm of Indian agriculture over a seven-decade period between 1950 and 2020. Specific focus is on agricultural output marketing. We pose two questions: a) How did the policies and institutions evolve over time? and b) How did it affect farmers' welfare? Based on the major policy shifts, we identify five distinct phases. Farmers' welfare explicitly became a policy priority in the

fifth phase, though there was recognition in the previous phases of the need for improving their conditions. Drawing insights from the existing political economy literature on agricultural development in India and a range of secondary sources of data, we develop four arguments: (a) the motivating theory for state intervention moved from state control dirigisme to neo-classical approach; (b) concerns of price stabilization and protecting consumer interests subdued price discovery by farmers; (c) clear emphasis was laid on smallholder class, albeit it never resolved their challenges; and (d) most importantly, the market-linkage institutions, by design, have not been conducive for the majority of smallholders. The market-linkage institutions aimed to connect farmers exclusively with agricultural markets. Since the farmers are located at the intersection of multiple markets (Bates, 1981), their livelihood security hinges not only on returns from agricultural markets but also from other markets. Our review suggests that the market-linkage institutions ignored the multiple sources of risks, especially outside agricultural markets, and the factors that affect ability of farmers to access markets.

Our inquiry, therefore, in the remaining part of this dissertation is for an institutional design that enables farmers to gain from market participation and that simultaneously ensures their livelihood security. We develop a conceptual model, followed up with an empirical study. The conceptual question is, what ought to be an ideal institutional design to enable gainful market participation and to ensure livelihood security of farmer households? To develop the conceptual model, we draw mainly from three streams of literature: (a) livelihood security (Chambers & Conway, 1992; Ellis, 2000) and agricultural commercialization (Pingali & Rosegrant, 1995; Timmer, 1988) (b) market access (Barrett, 2008; Chamberlin & Jayne, 2013; Goetz, 1992; Key et al., 2000) and role of producer organizations (Markelova et al., 2009; Trebbin & Hassler, 2012; World Bank, 2007), and (c) “design” concepts (Shah, 1995, 1996), longevity (Giagnocavo et al., 2018; Grashuis, 2018) and hybridity (Grashuis & Su, 2019) in cooperatives. An institutional design is ideally pro-farmer if it enables inclusive market participation of farmer households, enhances households’ agency for market participation and mitigates their risks, without compromising the sustainability of the organization orchestrating the design.

Our search for institutions with a semblance to the ideal design led us to an agricultural marketing cooperative in India, Totgars' Cooperative Sales Society (TSS), that provides its members with services to access multiple markets, and a set of livelihood services. It is a 98-year-old cooperative with consistent financial performance. The empirical field study aims to answer two questions: a) how does the design shape market participation and livelihood security of farmer households? b) how does the effect of the design vary among farmer households belonging to different landholding categories? To answer these questions, we undertake in-depth case study of the design orchestrated by TSS following embedded mixed-methods (Creswell & Clark, 2017) research design. For empirical analysis, we rely on primary and secondary sources of data comprising of both qualitative and quantitative types. The research design involves three phases: an exploratory study, followed by collection of qualitative data interspersed with data analysis, and a household survey for collecting quantitative data. Based on the theoretical model and empirical evidence from the field study, we show that ensuring livelihood security of farmer households through market access channel needs an institutional design with a set of functions that enhances households' agency for market participation and mitigates their risks, integrated on the strength of the value of crop produced.

For long-term success of the institutional design, sustainability of the organization orchestrating it is critical. In our model, the organizational form involved is a farmer producer organization, a cooperative. In the next part of the study, we examine how does the cooperative ensure its organizational sustainability? We posit that managing hybridity is at the core of ensuring organizational sustainability of cooperatives. Drawing on the study of TSS and qualitative data, we identify three mechanisms – patronage cohesiveness, internal sources of funds, and portfolio diversification – that helped it manage hybridity and therefore, organizational sustainability.

Our study makes contributions to theory, practice, and policy. We present a conceptual model of pro-farmer institutional design for gainful market participation and livelihood security. From a theoretical perspective, we make three specific contributions – agency for market participation, promoting livelihood as central to farmers' welfare, and the role of hybridity in

organizational sustainability of cooperatives. With this, we extend at least two streams of literature – promoting farmers’ welfare through market participation and organizational sustainability of producer organizations. Insights from the empirical study can serve as practical lessons for cooperatives and other forms of producer organizations to reflect on their organizational design and strategy to strengthen their performance. Our contributions to policy are two-fold. First, we suggest a shift in focus from farm income to farmer households’ livelihood security as the central tenet of their welfare. Second, we highlight the importance of designing institutions for promoting livelihood security of farmer households through the market access channel.

Keywords: institutional design, market participation, livelihood security, smallholder farmers, cooperatives, hybridity, organizational sustainability, agricultural policy