Johanna Carolina Jokinen

Bolivian transnational livelihoods
Impacts of labour migration on wellbeing and farming in Cochabamba
Abstract

This thesis explores the diverse consequences of transnational labour migration on individual migrants and their household members within out-migration communities in the agricultural valleys of Cochabamba, Bolivia. Using a multiple methods approach and the livelihoods framework, the aim of this work is to shed light on different experiences of migration in terms of objective wellbeing, subjective wellbeing, and changed practices in agricultural production. These issues are addressed in three papers.

*Paper I* investigates international migrants’ remittance behaviours through a regression analysis of a survey data set including household-level variables from the migrants’ place of origin, as well as their individual-level variables in their destination countries. The results highlight the role of remittances as a means to strengthen financial, physical, and human capital in low-income households and to promote local development and objective wellbeing in the outskirts of the city of Cochabamba.

*Paper II* explores ethnographic accounts of challenging migration conditions in order to develop the understanding of social networks. The study shows how family networks may function as negative social capital for individual migrants. The study findings emphasise the need to acknowledge migration as a dynamic process, with elements of both ‘success’ and ‘failure’, which can increase subjective wellbeing of the migrants and migrant households as well as counteract unrealistic expectations of migration.

*Paper III* examines the impact of transnational labour migration on agriculture in two urbanizing communities in Cochabamba by applying several qualitative methods. The results show that major investments in agricultural intensification by migrant households are not attractive due to the communities’ proximity to urban areas. This article highlights the need for nuanced conceptualization when studying migration-driven agricultural change in hybrid peri-urban spaces.

Overall, this thesis highlights the importance of considering and assessing the various capabilities and assets of migrants and their households, according to the livelihoods framework, when studying the consequences of transnational labour migration in socio-economically marginal settings. Furthermore, this thesis reveals that individual migrants’ agency may be limited when migration becomes an integral part of household livelihood strategies, which may hamper migrants’ subjective wellbeing as their household members are more focused on the economic returns of migration. Finally, this thesis emphasises how transnational labour migration and remittances function to maintain agricultural landesque-capital landscapes in peri-urbanising spaces near growing cities.

Keywords: transnational labour migration, livelihoods approach, remittances, agricultural land use change, Cochabamba, Bolivia

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ISSN 0431-2023
ISBN 978-91-506-2737-4
urn:nbn:se:uu:diva-366762 (http://urn.kb.se/resolve?urn=urn:nbn:se:uu:diva-366762)
To Mikaela
Preface and acknowledgements

I started my doctoral studies at Uppsala University in February 2012, and this period of my life has been a true learning process. I did not only learn how to write a dissertation, present in conferences, conduct fieldwork in remote and challenging conditions, publish in international journals, and apply for research funding, but I also became a wife and mother and learned how to manage combining my academic life with being a parent. This process has also involved several trips, and I had the pleasure of meeting many people in Sweden and Bolivia, among other places around the world. This dissertation has been shaped by these experiences and meetings from the last seven years, and even from before that. Therefore, I would like to take this occasion to thank some of the people who have contributed to my work in different ways.

I began to plan this study already in 2010 when I was employed as a teaching and research assistant at Stockholm University. Thanks to Juan Velasquez and Ulf Jansson, I came into contact with Carmen Ledo García, the head of Centro de Planificación y Gestión de la Universidad de San Simón (Ceplag UMSS) in Cochabamba, Bolivia. Consequently, I was introduced to the empirical context of this study when I visited Bolivia for the first time in August 2011, directly after having worked as an intern at the Food and Agriculture Organization of the United Nations (FAO) in Medellín, Colombia for two months. During this two-week pre-doctoral trip to the city of Cochabamba, I was taken to visit several residential neighbourhoods in Cochabamba, and Ceplag UMSS employees informed me about the living conditions, urbanisation process, infrastructure, and the phenomenon of international out-migration in these places. While the focus of this exploratory fieldwork was urban-oriented, I subsequently became interested in the linkages between migration and agricultural change based on the fieldwork I conducted at the FAO in Colombia. My emerging interest on the issues of farming and peri-urban land use was also founded on the work of Bo Malmberg, Lowe Börjeson, Anders Wästfelt, and Mats Widgren. I am grateful to all of them for giving me the opportunity
to work as a research assistant within their previous research proj-
ectories, which was an experience I could capitalise on when starting to
work on my thesis. I am also thankful to Charlotta Hedberg, for
giving me guidance regarding the topic of transnational migration
and remittances in the early stages of this study, and a very special
thank you to Sofia Cele for encouraging me to apply for a PhD posi-
tion at Uppsala University. I am also grateful to Anders Fridfeldt for
inspiring me to continue towards a PhD and an academic career on
many occasions.

Once I became a PhD student at Uppsala University, my super-
visors John Östh, Susanne Stenbacka, and Aida Aragão-Lagergren
have played a central role in my thesis work. I am deeply grateful
for their support over the last seven years. I would like to thank
John for giving me many ideas and for continuously asking me to
broaden the scope of my study in the planning stage of this PhD
project. I am also thankful to John for having introduced me to the
world of quantitative methods, for his essential comments when
they were most needed, for many discussions on academic life and
beyond, and for guiding me through my first international confer-
ence in Los Angeles in 2013. I particularly remember the field trip
day when we were looking for Bolivian migrants living in Los Ange-
les, as well as when John literally designed and prepared my confer-
ence presentation as I was too nervous to present a study based on
methods I was not very familiar with. Furthermore, I am indebted
to Susanne for her careful reading of my thesis, including the Swe-
dish summary, and previous texts presented at the departmental
seminars. Susanne’s sharp comments helped me to better interpret
and understand the empirical results of my interviews and observa-
tions, and her insight into rural livelihoods was especially helpful. I
wish to also thank Susanne for all the practical and administrative
guidance while performing her role as the former director of PhD
studies and the current head of the department. I am thankful to
Aida for her thoughtful reading of this thesis and my earlier drafts,
and for her constructive feedback. Particularly I would like to thank
Aida for her clear insight into the Latin American context and the
theme of transnational labour migration in Latin America, which
was of central importance throughout this doctoral project. I am
also grateful to Aida for all the advice and support in her previous
role as the head of the department and for editing my texts written
in Spanish.

Over the last years, I spent ten months in total in Cochabamba.
Throughout my fieldwork and during a longer stay at the University
of San Simón as a visiting PhD student, my research planning and conduction was to a great degree facilitated by the knowledge of local researchers. Saying thank you is not enough to show my gratitude to Carmen Ledo García, who always received me warm-heartedly at Ceplag UMSS and supported my studies in different ways. Thanks to Carmen for giving me office space during my entire stay in Bolivia, for her local insight that was particularly helpful, for taking time to explain to me how different things work in Bolivia, for sharing data and important literature, for helping me to find field assistants, for challenging me when I presented my study advances, and for calling me and helping me to find skilful physicians when I was sick. I am also particularly thankful to Paola Ledo Espinoza, Martin Marañon Eguivar, and Fabricio Montaño Antezana for helping me to conduct interviews during my fieldwork, for transcribing my interviews, for assisting me with many practical issues, and for being such good colleagues and friends during my stay in Bolivia. I am indebted to Juan Carlos Totola Herbas and Silvia Alejandra Collarana Cruz for assisting me with the interviews and focus groups, including transcription, and for designing the posters that I used to present my preliminary research findings in the communities I studied. I would also like to thank Lenny Rios, José Cadima, Pablo Guzmán Barrionuevo, Raul Huaynoca, and Fátima Zambrana Almaraz for additional assistance with the interviews, focus groups, and transcriptions. I give thanks also to the other coworkers at Ceplag UMSS for making me feel most welcome during my stay in Cochabamba, including Benjamín Gossweiler, Daniel Avilés Ribera, and Luis Fernando Perez Mercado.

I sincerely acknowledge the participation of all the farmers and key informants in my study. Thanks to them for responding to my many questions, for showing me around the agricultural fields, and for sharing their valuable time and knowledge with me. In addition, I appreciate the Bolivian migrants who participated in my pilot study in metropolitan Los Angeles in 2013. These interviews allowed me to obtain more knowledge on the processes of transnational migration from Bolivia, and they served as a preparation for my subsequent fieldwork in Bolivia. I am also thankful to the coworkers at the Instituto Geográfico Militar (IGM) and the Bolivian Air Force in La Paz for providing me with historical aerial photographs. A special thank you to the IGM employees who spent several days in the archives searching for photographs that would coincide with my study sites. This task was time-consuming as the archives had been closed for a long time and also because the photo-
graphs and the negatives were in disarray. In addition, thanks to
Anders Lundgren at Uppsala University’s Ekonomikum campus for
providing me with laptops and an ArcGIS licence that functioned
even in remote conditions in Bolivia.

I would like to thank all the present and previous colleagues at
the Department of Social and Economic Geography at Uppsala
University for making the department such a good working envi-
ronment. I am particularly indebted to my reading group, Irene
Molina and Jan Boelhouwers, for their valuable comments and sugges-
tions that were crucial in developing the final version of this dis-
sertation. I am thankful to Melissa Kelly, Patricia Yocie Hierofani,
Jan Amcoff, Kati Kadarik, Sofie Joosse, and Roger Andersson for
reading and commenting on my previous drafts at the departmental
seminars. Thanks also to David Jansson, Brian Hracs, Ann
Grubbström, Peeter Maandi, Ali Najib, Dominic Power, Göran
Hoppe, Hans Aldskogius, Kjell Haraldsson, Rhiannon Pugh, Johan
Jansson, Micheline van Riemsdijk, Mikael Wingård, Pamela Tip-
manoworn, Lena Dahlborg, Karin Beckman, and Kerstin Edlund for
providing guidance in different ways during my doctoral studies. A
very special thank you to Irene Molina, Aida Aragão-Lagergren,
Sofie Joosse, Marat Murzabekov, Ann Rodenstedt, Tina Mathisen,
Gabriela Hinchcliffe, Magdalena Cederin, Josefine Lindell, and
Anders Waxell for making the Field Course to South Africa 2013
such a memorable part of my doctoral studies. Thank you also to
my former and present fellow PhD students for many insightful
discussions throughout the last seven years, particularly Sara
Forsberg, Janne Margrethe Karlsson, Chiara Valli, Andreas Alm
Fjellborg, Hele Kiimann, Pepijn Olders, Taylor Brydges, Mattias
Gradén, Cecilia Bygdell, Dominic Teodorescu, Cecilia Fähræus,
Marcus Wallner, Erik Hansson, Marcus Mohall, and Karin Nibon,
besides the ones already mentioned. I would like to thank Marat
Murzabekov for being the perfect room-mate and for many interest-
ing discussions when commuting from Stockholm to Uppsala.

Thank you to the opponent Mariel Cristina Aguilar-Støen and
the examination committee members Irene Molina, Mats Morell,
and Mats Widgren for taking time to read my dissertation. Thanks
also to Don Mitchell for accepting the role of the chair at my de-
fence.

I am grateful to Martina Angela Caretta for kindly sharing her
knowledge and expertise on publishing articles, for our shared expe-
rience on the conference trip to Milwaukee and Chicago in 2015,
and for many conversations on fieldwork, academic life, and life in
general. Thanks also to my co-authors Danielle Drozdzewski and Emily Falconer. I would like to particularly thank the editors Pamela Moss and Elizabeth Fussell for editing my writing and for giving critical feedback that helped me to make my articles publishable. I appreciate the constructive comments by Agnes Andersson Djurfeldt, Gloria L. Gallardo Fernández, Suvi Kokko, and Lars Rudebeck on my drafts. I am also indebted to Wolfgang Gurgiser and Irmgard Juen for helping me to analyse precipitation data from Cochabamba and for receiving me during my visit at the University of Innsbruck in 2016. I am thankful to Gloria L. Gallardo Fernández for her support in her previous role as the CEMUS Research Forum (CEFO) coordinator, for giving me the opportunity to present and discuss my research at CEFO seminars, and for inviting me to participate in the CEFO trip to Chile in 2013 as well as the Waxholm Workshop in 2015. Thanks also to Justin Makii, Héctor Estuardo Guinea Barrientos, and Kristina Börebäck for co-organising the Chile trip. Thank you to Camilla Eriksson for her company during the Nordic Geographers Meeting in Reykjavik in 2013.

Sandra Johansson, Carlos Felipe Gaviria Garcés, and Mauricio Giovanni Valencia Amaya, I truly appreciate their friendship and it has been great to be able share this journey from master’s studies to pursuing a PhD with all of them. I have enjoyed meeting them regularly during my many stopovers in Bogotá, on my way to and from Bolivia, besides our other gatherings in Bogotá, Stockholm, and Santa Cruz. I appreciate Sandra especially for her careful editing of the parts of this dissertation and for sharing many thoughts on the experience of living in a Latin American country. I am grateful to Mauricio for always being ready to proofread and edit my texts in Spanish.

My fieldwork was financially supported by the Swedish Society for Anthropology and Geography; Helge Ax:son Johnson’s Foundation; Håkansson’s Travel Grants, Uppsala University; and the Margit Althin Scholarship Fund of the Royal Swedish Academy of Sciences. My conference participation was funded by Anna Maria Lundin Travel Grants from Smålands Nation; the Lars Hierta Memorial Foundation; and Letterstedtska Association. My participation in the Field Course to South Africa 2013 was financed by the Margit Althin Scholarship Fund of the Royal Swedish Academy of Sciences and the Department of Social and Economic Geography at Uppsala University. My attendance in the CEFO trip to Chile was completely covered by the CEFO.
Beyond academia, I am particularly thankful to Anniina Heikinheimo for providing me with the excellent artwork for the cover of this dissertation. Thanks also to Anniina for her loyal friendship from when we started high school studies in Kemi, for several unforgettable trips, and for sharing the experience of becoming a mother. I am also grateful to Maria-Melina Väyrynen for offering to proofread my texts and for her friendship throughout almost my entire life. Thanks also to Paulina Mihailova and Assia Viachka for many conversations on parenting and completing a PhD. I appreciate Maria de Souza and Thomas Edmar for their friendship and for helping me to keep my mind and body sound. In addition, I am grateful to my other friends and relatives for their support and kindness.

I appreciate the support of my extended family Quispe Jiménez in Bolivia and in Spain. Thanks to Doña Lidia; Humberto, Maricruz, Marcelo, and Daniel; Aurelio, Ruth, and Karol; Richard, Marisol, Elena, Melyna, Melany, and Gerard; Jhonny; Veronica; Ariel; and Joel for their guidance and for giving me many insights into Bolivian life. Thank you to Olga, Galo, Abraham, Yessica, and Benjamin for receiving us in Cózar and for sharing their thoughts on life as transnational Bolivians and beyond.

I am truly thankful to my parents, Riitta-Liisa and Jouko Jokinen, for their support throughout my life and especially during these years of my doctoral studies. Thanks for visiting me in Cochabamba and for travelling with me to La Paz, Cuzco, and Machu Picchu, which gave me necessary breathing space in the middle of my data collection. They also took me to visit the mountains outside of the city of Sacaba, which broadened my understanding of the irrigation landscape I had been studying. In addition, I appreciate that they gave me the possibility to learn Spanish during my childhood when we were living in Spain, which provided me with the necessary language skills to be able to carry out my empirical research. Thank you also to my parents for helping with child-care in crucial moments when I needed time to finalise my thesis writing. Thank you to Jari-Heikki Jokinen for always being such a good brother and for giving me advice based on his experiences in Bolivia before I started with my fieldwork, for instance regarding arroz con queso.

Raul Quispe Jiménez – el amor de mi vida – it was the best coincidence of my life that I happened to meet you at the beginning of my second fieldwork trip. You have patiently shared with me these years of studying and in many ways, have helped me to finish this PhD. Thank you for assisting me during some of my field visits and
for always being interested in listening to my research findings and commenting on them based on your local knowledge. Words are not enough to express my gratitude to you, Raul, for taking care of Mikaelita during my 14-hour work-days over the last couple months, for waiting with your delicious dishes when I came home in the evenings, and for continuously changing your shifts to accommodate my schedule. Thanks also for sharing with me the unforgettable trips to Iguazú Falls, Colombia, and Ecuador, and for carrying my 5 kg potato sack – which I had received as a gift – in your hand luggage without complaining when we were hurrying to the airport through La Paz and El Alto.

Mikaela, you have been the joy of my life over the last two years, quite exactly. I thank you for having been such a perfect little child and for getting me to take some days off even in the middle of the most intensive writing periods.

Uppsala, November 24, 2018

*Johanna Carolina Jokinen*
List of Papers

This thesis is based on the following papers, which are referred to in the text by their Roman numerals.


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Abbreviations

ARAP  Asociación de Regantes de Apaka Punta (Association of irrigators of Apaka Punta)
BA   Bachelor of Arts
BOB  Bolivian boliviano
BP   Before Present
CEFO CEMUS Research Forum
CEMUS The Centre for Environment and Development Studies
Ceplag Centro de Planificación y Gestión (Planning and Management Centre)
FAO  Food and Agriculture Organization of the United Nations
GDP  Gross domestic product
GIS  Geographic information system
IGM  Instituto Geográfico Militar (Military Geographical Institute)
MAS  Movimiento al Socialismo (Movement for Socialism)
MSc  Master of Science
NELM New economics of labour migration
OTB  Organización Territorial de Base (Grassroots Territorial Organization)
PhD  Doctor of Philosophy
Sida Swedish International Development Cooperation Agency
SLU  Swedish University of Agricultural Sciences
UMSS Universidad Mayor de San Simón (University of San Simón)
UN   United Nations
USD  United States dollar
1. Introduction

One of my sisters was the first to migrate to Spain, and then both I and my other sister travelled there in 2004. However, before us, our cousin migrated to Spain as his brother-in-law was working there and he had been telling our cousin how good working possibilities were with much higher salaries in Spain. I had to take a bank loan to be able to travel with a tourist visa as it costs USD 3,000, and in addition, it was needed to show that you have USD 1,000 in your bank account. It took me two weeks to find work in Spain, and then I could pay back the loan within 6 months. It took slightly longer as my husband was only earning BOB 700 [USD ~100] working in Bolivia, so I had to help with paying my youngest children’s education, alimentation, and clothing expenses. My employment in Spain was caring for the elderly, and I stayed there for two years, and then I came back for eight months to build my house. First, I was not planning to go back to Spain, but then I travelled again, and I used all the money to finalise the house construction. I stayed for seven years and came back to visit Bolivia once a year. I returned seven months ago, and I have stayed here. My husband never wanted to migrate with me, mainly because of our children, I think. He works as a road service employee in Oruro. (Wendy, 47 years old)

Wendy is a farmer and a member of a peasant household with diversified and multi-local income sources who resides in an urbanising agricultural village on the outskirts of the city of Cochabamba in Bolivia. Wendy is also a transnational labour migrant, as she has been migrating internationally in circulatory patterns over several years. She has been migrating for the purposes of income generation, and she never planned to stay abroad permanently. This thesis investigates international migrants’ behaviours regarding monetary remittances they send to their households of origin in Cochabamba. It also evolves around questions of the ‘success’ and ‘failure’ of migration and the situatedness of migration in a wider biographical context.

Wendy’s story reveals how transnational labour migration is used as a household-level livelihood strategy. As shown in the following quotation, she is already planning for the migration of the subsequent generation.
In the future, I would like to take the youngest one of my three children with me to Spain, as he has been studying to become an engineer. Now I am planning to travel again as I already have a residence permit for five years and my employer has been asking me to go to work in Spain again. I just sold three of my dairy cows as I have had back pain recently and it is difficult to carry alfalfa for the cows. We have also sowed corn very recently when we got irrigation water from a nearby lake. It was not possible to plant earlier because it has not been raining. In the past, my grandfather was able to cultivate any crops here, including quinoa, and fumigation was not needed. Now, it is not even possible to grow alfalfa if you do not fumigate and fertilise. When I have been migrating, we have not been cultivating anything as, because of her age, my mother was not able to engage in agriculture alone without my help. In the future, we would like to live in another place. Here, in Pucarita Chica, they want to urbanise everything; I think there will be no cows and sheep here in some 5 or 10 years as the farmers are selling their land and other people are coming to live here from other places. I have bought land in Santa Cruz even though I still have not built anything there, but we would like to live there in the future. (Wendy, 47 years old)

Wendy has not been actively investing remittances in agriculture, which has resulted in unchanged or even deteriorating farming practices. Moreover, her migration had a negative impact on her household workforce, and thus the agricultural activities of her household stagnated while she lived abroad. Whereas it may not even make sense to use remittances in agricultural intensification in Wendy’s home village due to the ongoing urbanisation process and land scarcity, she has actually used remittances to purchase land in Santa Cruz, a department in the Bolivian western flat plains. This investment may indicate Wendy’s desire to improve her family’s agricultural livelihoods in a different location with conditions more suitable for farming. This thesis also explores whether migrant households of peri-urbanising communities invest remittances in agricultural intensification and if they find it worthwhile to preserve agricultural landscapes near the rapidly growing city of Cochabamba.

Narratives similar to Wendy’s appear in many Cochabamban agricultural households. While transnational migration is commonly performed to increase and diversify household income sources, most migrants do so in a temporary or circulatory manner and maintain strong links with their village of origin. As migrants in general plan to return after having worked for a defined or an undetermined time period abroad, they commonly use a major part of their generated income, for instance, to build a big Western-style house in Bolivia,
while trying to minimise their living expenses abroad. In fact, even if these migrants cannot afford to complete the construction on the interior parts of their house or purchase furniture, it is important for them to show off the material outcomes of their migration by building a big house in their neighbourhood of origin. However, while some Cochabamban migrants are able to fulfil their initial plans rather ‘successfully’, other migrants must return soon after their departure. In the latter case, the migration experience could be determined as a ‘failure’, for instance, if it leads to indebtedness instead of income generation. Thus, there is variation between the households of origin regarding, for instance, the amount of remittances they receive. In a similar way, the migrant families’ ability to improve their farming activities through investment of remittances in agriculture varies widely among households and out-migration villages. While out-migration may result in the deterioration of farming due to labour loss, in other cases remittances may be invested in land to achieve more viable farming through new commercial crops and by applying more efficient farming techniques.

This thesis is a multiple-methods study on the diverse impacts of transnational labour migration on wellbeing and farming in the agricultural valleys of Cochabamba, Bolivia. The subsequent sections of chapter 1 are organised as follows: section 1.1 defines the key terms, section 1.2 provides a contextual background of Bolivia, section 1.3 introduces the study theme of migration-induced local development, section 1.4 presents the overall aim and the more specified research questions, section 1.5 emphasises the contribution of this thesis and, finally, section 1.6 explains how the rest of the thesis is structured.

1.1 Conceptual definitions

Human migration is traditionally understood as a ‘permanent relocation of both place of residence and activity space’, driven by negative push factors in the place of origin and positive pull factors in the migration destination (Getis et al., 2008: 280). According to this definition, migration is considered to be a static relocation without taking into consideration the migrant’s interaction with the place of origin. This is a simplified and uncritical understanding of migration because not all migration is permanent and the drivers of migration are more complex than the perceived push and pull factors. In fact, as indicated in the quotation below, a migration decision is often
influenced by a variety of factors, and the migration may have unexpected consequences and outcomes.

Migration is hardly ever a simple individual action in which a person decides to move in search of better life-chances, pulls up his or her roots in the place of origin and quickly becomes assimilated in a new country. /.../ Moreover, the experience of migration and of living in another country often leads to modification of the original plans, so that migrants’ intentions at the time of departure are poor predictors of actual behaviour. (Castles et al., 2014: 25)

Hence, even if a migration is planned as a permanent migration, it may result in a return to the place of origin or further migration to another destination. Technically, migration cannot actually become permanent during a human’s lifetime, and, therefore, it is more appropriate to use the concepts of short-term migration and long-term migration (Skeldon, 2014).

In the United Nations (UN) report on international migration, an international migrant is defined as ‘a person who is living in a country other than his or her country of birth’ (United Nations, Department of Economic and Social Affairs, Population Division, 2017). Contemporary international migration, in other words, relocation over the borders of nation states, is strongly linked to the processes of increasing global integration as ‘movements of commodities, capital and ideas almost always give rise to movements of people, and vice versa’ (Castles et al., 2014: 7). Hence, the concept of transnationalism is increasingly used in relation to international migration in the globalised world, in which the old-fashioned, state-centric, way of thinking is challenged. ‘Transnationalism implies people building their lives around references to the various social worlds, imagined in a scope that goes beyond national borders, in which they spend considerable amounts of time’ (Oso and Ribas-Mateos, 2013: 8).

Given the transnational nature of Bolivian contemporary international migration, in this dissertation, I use the term transnational migration. This term is ‘defined here as international migration in which migrants maintain their family ties across borders, for instance, through making regular visits, sending remittances, or having plans to return’ (Jokinen, 2018: 3; see also Glick Schiller et al., 1995; Levitt and Jaworsky, 2007). In this thesis, ‘migration’ is to be understood as transnational migration. When reference is made to another type of migration, such as internal migration, it will be specified.

The terms temporary migration, circular migration, and return migration overlap and are thus difficult to define (Skeldon, 2012;
One way to define circular migration is to emphasise its regularity and flexibility: ‘the circular migrant engages in a regular and repetitive series of outward and return movements between an origin and a destination or destinations and the circular migrant is free to return at any time’ (Skeldon, 2012: 47). Circular migration is not the same as commuting as the migrant ‘spends significant periods of time at the origin and destination, “lives” in both, and often has location-specific capital in both places’ (Hugo, 2013: 2). In this thesis, I adopt the concept of circular migration in line with these definitions. I also use the concepts short-term return and long-term migration, respectively, to refer to a return within less than two years from out-migration and migration that is ongoing or ends up in a return after staying at least two years abroad. However, given the circular nature of Bolivian migration, I do not consider migration or return to be permanent.

In the research on migration, the concept of wellbeing often refers to ‘happiness’ and ‘life satisfaction’ (e.g., Cárdenas et al., 2009; Borraz et al., 2010; Joarder et al., 2017). While objective wellbeing is understood as ‘objective measures of human welfare’ based on income, employment, and other factors that are universally needed to achieve a good quality of life (Wright, 2011: 1460; see also Gartaula et al., 2012; Wright, 2012), subjective wellbeing refers to migrants’ self-reported assessment of their life quality, which may vary, for instance, among different cultural contexts (Gartaula et al., 2012). The concept of human wellbeing is based on a more holistic approach that takes into account both objectively measured material components and subjectively perceived elements that are important to ‘live well’ (Wright, 2010: 374; 2011; 2012). In this thesis, migrant households’ increasing quality of life based on objective measures of monetary remittances is understood in terms of objective wellbeing. The term subjective wellbeing is used in relation to migrants’ and migrant household members’ narratives on the challenges experienced in the context of migration that affect their life satisfaction. In other words, my use of subjective wellbeing refers to migrants’ subjectively assessed quality of life beyond monetary remittances and other factors contributing to their objective wellbeing.

The concepts of the rural and the urban have been traditionally understood in a dichotomous manner in the literature on population (see, e.g., Stewart Jr., 1958) and on development (see, e.g., Wiggins and Proctor, 2001; Potter et al., 2008; Dick and Schmidt-Kallert, 2011). This distinction has been used in census reports (Stewart Jr.,
1958) and, for instance, in the UN Demographic Yearbook to allow international comparison (Champion and Hugo, 2004), even though it varies greatly how rural and urban areas are defined in different countries (Rakodi, 2002; Lerner and Eakin, 2011). This dualistic understanding is also strongly linked to the early migration research that largely neglected the cyclical and seasonal movements and counter-currents of rural-to-urban migration (Dick and Schmidt-Kallert, 2011; see also Rhoades, 1978; Gmelch, 1980). However, the conventional division between the rural and the urban has been questioned in many works (e.g., Stewart Jr., 1958; Dick and Schmidt-Kallert, 2011; Lerner and Eakin, 2011; Stenbacka, 2011; see also Potter et al., 2008). At the same time, complex rural-urban linkages (e.g., Tacoli, 1998; Satterthwaite et al., 2010; Andersson, 2011) and emerging peri-urban spaces are increasingly acknowledged in the literature (e.g., Wiggins and Proctor, 2001; Lerner and Eakin, 2011).

While there are no universal definitions of the rural, the urban, and the peri-urban, the latter is generally understood to include mixed land uses (Potter et al., 2008) and elements of both the rural and the urban in a hybrid modality (Lerner and Eakin, 2011). Moreover, the peri-urban has a changing character as, along with growing cities, the innermost peri-urban zones are often urbanised whereas surrounding rural areas may become peri-urban (Wiggins and Proctor, 2001).

Households in peri-urban regions, particularly in the developing world, typically pursue livelihoods that depend less on the natural resource base and more on urban employment and services. Such households may be pursuing peri-urban incomes while still residing in what appears to be largely rural landscapes. (Lerner and Eakin, 2011: 312)

In line with the quotation above, I define the peri-urban as a transition zone between the rural and the urban, in which households’ livelihoods are based on both agriculture and non-farm employment located in the urban labour market. In other words, in peri-urban communities, many households still practise farming but, at the same time, they commonly include household members who work in nearby cities by commuting on a daily basis (see also Wiggins and Proctor, 2001). The case study sites at the furthest distance in this study are located approximately 35-40 km outside the city of Cocharamba. Given the poor condition of the local roads and the unreliability of public transport, it often takes at least two hours to
travel this distance. As I do not find a daily commute of four hours to be sustainable in this context, I consider these communities to be rural. The other case study sites are located approximately 5-10 km outside the main cities of Cochabamba and Sacaba. While the inhabitants of some of these villages regard these villages as rural, I consider them to be peri-urban based on the proximity of the urban labour market.

**Figure 1.** Location of the western highlands, the region of intramountain valleys, and the eastern lowlands in relation to the departmental urban centres and the departmental extents. Source: Map is original by Johanna Carolina Jokinen and John Östh; ASTER GDEM is a product of METI and NASA

### 1.2 Contextual background: Bolivia

Bolivia, officially, the Plurinational State of Bolivia, is located in South America, surrounded by Argentina, Brazil, Chile, Paraguay, and Peru. While approximately two thirds of Bolivia is covered by eastern tropical lowland plains of the Amazonian and Chaco, the majority of its population has been concentrated on the western highlands, the Bolivian Altiplano, and the region of intramountain valleys situated between the Altiplano and the eastern lowlands (Figure 1). The vast region of the eastern lowlands was mainly unsettled and inaccessible until modern times. The Altiplano is limited by the Cordillera Occidental in the west and the Cordillera Central
in the east. The valley region of the Cordillera Central can be divided in the higher sub-puna valleys of open plains, broader and more temperate sub-puna valleys such as the Cochabamba valley system, and the semi-tropical steep river valleys such as the Yungas near the city of La Paz and Chapare between the cities of Cochabamba and Santa Cruz (Klein, 1992).

In comparison to other Latin American countries, Bolivia is characterised by a prevalence of peasantry and a large indigenous population that speaks Quechua, Aymara, Guarani, and other Amerindian languages. In the early 1980s, two-thirds of Bolivians were rural peasants, and today, agriculture is still an important livelihood. However, since the Spanish conquest in the 16th century, the indigenous peasants and working class have been exploited by the capitalist ‘white’ Spanish-speaking elite (Klein, 1992). ‘The nation is built on a fabric of exploitation and exclusion: a weft of racism and discrimination and a warp of foreign domination and despoliation’ (Kohl and Farthing, 2006: 4), when race is defined along social class rather than ethnicity. However, Evo Morales, representing the political party of Movimiento al Socialismo (MAS), was elected Bolivia’s first indigenous president in December 2005, which was considered an important step towards more democratic conditions and indigenous liberation (Webber, 2011).

In 2014, there were 10.6 million inhabitants in Bolivia, and 68% of the population was counted as urban and 32% was counted as rural (The World Bank, 2015b). Bolivia is thus one of the least urbanised countries in South America, along with Suriname, Ecuador, Paraguay, and Guyana. However, from 2005 to 2015, the rate of change in the urban population, 2.29%, was the second highest on the continent after French Guiana (Moreno et al., 2016). In 2009, the Bolivian cities of La Paz/El Alto and Santa Cruz still had low population densities, 9,235 people/km² and 7,167 people/km², respectively, in comparison to the Andean cities of Lima, Guayaquil, Cali, Bogotá, and Medellín. In other words, Bolivia’s largest cities have low population densities that are changing because of high population growth rates (Parés-Ramos et al., 2013).

Although Bolivia is one of the poorest countries in Latin America (Vargas and Garriga, 2015) and the poorest in South America (Webber, 2011), both poverty and inequality have been decreasing during the 2000s. For instance, between 1996 and 2011, the rate of extreme poverty (USD 1.25 per day) reduced from 17% to 7%, and the rate of moderate poverty (USD 2.5 per day) decreased from 34% to 16% (Vargas and Garriga, 2015). Bolivia mainly exports
minerals and hydrocarbons, which covered 81% of all the exports in 2014 (Vargas, 2016), and its dependency on commodity exports has been growing. In 2012, exports covered 47% of the GDP, and, consequently, Bolivia had one of the highest dependencies in Latin America (Vargas and Garriga, 2015). As a landlocked country, it is expensive to export commodities from Bolivia in comparison to other Latin American countries that have sea ports. In addition, the Bolivian road network is underdeveloped, and the roads located outside cities are mostly unpaved. The manufacturing sector is mainly composed of small-scale industries that sell their products regionally (Webber, 2011).

Bolivia has been described as a dual society in which Western governance and legislation are mixed and function along with pre-Columbian traditions. For instance, the land governance in the agricultural communities is reminiscent of the Andean ayllu, a mode of indigenous kinship grouping that organises the distribution of land and communal labour projects (Klein, 1992; Strunk, 2014). Members of an ayllu had access to land parcels from different ecological zones as a strategy to ensure their self-sufficiency and to minimise the risk of soil degradation in harsh climatic conditions (Cortes, 2002). This system of collective land management, also referred to as ‘vertical ecological integration’ (Klein, 1992: 11) or as the vertical archipelago of the Inca state, ‘connected territories at different elevations through exchange networks’ (Strunk, 2014: 1712, Zimmerer, 2000). The ayllu structure was modified and weakened during the colonial period when haciendas, large-scale landholdings, were established (Cortes, 2002). However, studies on contemporary labour migration in other Andean countries relate the vertical archipelago to modern vertical mobility, which is a diversification strategy that relies on social exchange networks and ‘traces lines of class and offers the possibility of overcoming them’ (Hirsch, 2018: 196, see also Colloredo-Mansfeld, 1999; Strunk, 2014).

1.3 Debates on migration and development

While numerous studies have explored causal links between transnational labour migration and local development in the out-migration communities of the South (e.g., Reichert, 1981; Massey, 1988; Durand et al., 1996a; Durand et al., 1996b; Taylor et al., 1996a; Taylor et al., 1996b; Jones, 1998; Cohen, 2001; de Haas, 2006; Faist, 2008; Jones, 2013), in the academic literature, the un-
derstandings of the developmental potential of transnational migration have been shifting. In fact, it is possible to distinguish between different phases within this research field as ‘the debate on migration and development has swung back and forth like a pendulum, from developmentalist optimism in the 1950s and 1960s, to neo-Marxist pessimism over the 1970s and 1980s, towards more optimistic views in the 1990s and 2000s’. According to the most recent phase, the benefits of transnational migration can be achieved both in the places of origin and in migration destinations (de Haas, 2010: 227), and migration is commonly understood as a strategy to mitigate otherwise growing North-South inequalities (Raghuram, 2009). These rather dramatic shifts in academic views on migration may actually reflect the prevailing attitudes to transnational migration and its consequences in Western societies at different times.

The theme of migration-driven local development has been mainly studied by analysing how the socioeconomic conditions of out-migration communities are improved through monetary remittances sent by migrants to their households of origin (see, e.g., de Haas, 2005; Skeldon, 2008; Adams Jr. and Cuecuecha, 2010; Horst et al., 2014). In the early studies of the abovementioned ‘pessimistic era’, it was found that most of the remittances were spent on everyday consumption such as food and clothes. According to the traditional non-critical migration literature, this pattern was argued to cause unsustainable development, dependency on recurrent migration, and growing economic inequality between households (see, e.g., Reichert, 1981; Mines and de Janvry, 1982). However, these studies ignored the indirect effects of migration. In addition, several scholars emphasised thereafter that migrants also seek productive investment possibilities and thus promote local development in out-migration communities (e.g., Durand et al., 1996a; Durand et al., 1996b; Taylor et al., 1996a; Taylor et al., 1996b; Taylor, 1999; de Haas, 2005).

Remittances sent through official channels are counted as an important financial source in low- and middle-income countries at a global level as they are three-fold in comparison to official development aid. Migrant remittances also exceed direct foreign investment if China is not taken into consideration (The World Bank, 2015b). It should be noted that, according to the World Bank’s assessments, migrants worldwide may remit the same amount through unofficial channels as through formal channels (Skeldon, 2008). In addition, it seems that the level of remittances has remained more stable in times of economic crises in comparison to, for instance, foreign di-
rect investment (The World Bank, 2015b). Accordingly, it has been argued that international migration and remittances effectively function to reduce poverty in the world’s developing countries (Adams, Jr. and Page, 2005). While remittances have been described as a key bottom-up way in which to increase welfare among the poor, particularly in rural areas of origin (see, e.g., Jones, 1998), it has also been argued that the prevailing remittance ‘euphoria may be overly optimistic’, for instance, due to policies restricting circular migration (de Haas, 2005: 1277). This argument is consistent with the finding that returning migrants are more likely to contribute to local development in comparison to active migrants, probably due to their higher level of local connections and interests in their place of origin. Active migrant households refer to households with household members living abroad whereas return migrant households have solely migrant household members who have returned (Jones, 2011). In addition to monetary remittances, social remittances of knowledge, skills, behaviours, and ideas brought by migrants are also important elements that improve living conditions in the place of origin (see, e.g., Levitt, 1998; Levitt and Lamba-Nieves, 2011; Jones, 2011).

The importance of local case studies on migration and development has been stressed to explore the types of migration-driven outcomes that are created under different local conditions (see, e.g., Cohen, 2001). For instance, in a study conducted in southern Morocco, transnational migration evidently led to regional economic development through investments in house construction, farming, and local business. Nevertheless, it has been specified that such outcomes are highly context-dependent, and there might be very distinct outcomes in different out-migration regions (de Haas, 2006). Moreover, in addition to remittances sent to individual households, some type of state interference is likely demanded to stimulate local development due to a development process’s complexity (de Haas, 2010). Accordingly, in the policy debate, migrants should not be given responsibility for development in their places of origin instead of targeting the existing structural factors that may hinder development in these places (Skeldon, 2008).

In the Latin American context, monetary remittances have been functioning to significantly reduce poverty by generating higher income levels of migrant households (Acosta et al., 2008). While remittances also contribute to the economic development of recipient countries and the improved socioeconomic conditions of migrant households, these positive effects seem to be minor (Fajnzyl-
ber and López, 2008). In addition, as an inequality-reducing factor, remittances have had only modest effects (Acosta et al., 2006; Acosta et al., 2008). This finding is linked to the fact that remittance-receiving households are not always the poorest ones in Latin American countries (Fajnzylber and López, 2008). There are also substantial variations between different Latin American countries concerning the developmental effects of remittances, for instance, based on differences in the cost of migration (Acosta et al., 2008).

1.4 Aim and research questions
The general aim of this dissertation is to shed light on different experiences of transnational labour migration, using the livelihoods framework to explore the consequences of migration for migrating individuals and their household members in terms of objective well-being, subjective wellbeing, and changed practices of agricultural production. The empirical basis is data material that was collected in urban, peri-urban, and rural settings in the agricultural valleys of Cochabamba, Bolivia, using both qualitative and quantitative research methods.

The general aim is studied by answering the following questions:

Paper I: How do migrants’ household characteristics in their place of origin and their individual characteristics in their migration destinations affect the amount and use of remittances the migrants send to their households of origin?

Paper II: How and why do social networks of family members and friends affect individual migrants’ subjective wellbeing?

Paper III: How does transnational labour migration affect agricultural practices and land use in peri-urban out-migration communities?

Bolivia provides a novel context for a study on the impacts of transnational labour migration on wellbeing and farming. Along with Guatemala and Peru (The World Bank, 2015a), Bolivia’s total population includes a large share of indigenous citizens with a strong tradition of peasantry and agricultural livelihoods. In comparison to other Latin American countries, Bolivia is still characterised by its rurality and remoteness, despite the ongoing process of rapid urbanisation. Further, Bolivia is one of the poorest countries in the region.
While the Swedish International Development Cooperation Agency (Sida) has been phasing out its regional cooperation in Latin America, it still has bilateral cooperation with Bolivia, in addition to Colombia, Cuba, and Guatemala (Sida, 2018).

Differing, for instance, from Mexican international migration, Bolivian international migration includes both South-South and South-North flows. The economic cost of South-North migration is likely to be higher in comparison to the migration of Mexicans to the USA. There have also been considerable changes in the migration flows from Bolivia during the 2000s. Previously, it was mainly members of better-off households who migrated to the USA, whereas low-skilled Bolivians principally migrated to Argentina (Ledo, 2012). However, there are relatively new migration trajectories to Spain and Italy, which predominantly consist of low-skilled female migrants who adopt circular migration patterns (Hinojosa Gordonava, 2009b). Given the changing characteristics of Bolivian international migration, it is possible to gain new knowledge on the remittance behaviours and vulnerability of migrants who originate from marginal socioeconomic conditions. Due to Bolivia’s remoteness and the poor conditions of its road transport, it is crucial to preserve the remaining agricultural activities in the valleys of Cochabamba from the food security perspective. As a consequence, it is important to study if transnational labour migration further transforms the country’s agricultural production in addition to the processes of rapid urbanisation and changing climatic conditions.

1.5 Contribution to human geography

Most of the studies on migration-driven local development in Latin America have been conducted in the Mexican context (see, e.g., Taylor, 1987; Durand et al., 1996a; Durand et al., 1996b; Taylor et al., 1996b; Taylor and Wyatt, 1996; Jones, 1998; Cohen, 2001; Radel and Schmook, 2008; Gabbarot and Clarke, 2010; Jones, 2014b; Garip, 2016; see also Durand and Massey, 1992; Fajnzylber and López, 2008), and several micro-level case studies on the effects of migration on agricultural communities have been conducted in countries such as Guatemala (e.g., Moran-Taylor and Taylor, 2010; Aguilar-Støen et al., 2016; Taylor et al., 2016; see also Aguilar-Støen, 2012) and Ecuador (e.g., Jokisch, 2002; Gray, 2009; Gray and Bilsborrow, 2014). In the Bolivian context, the research on migration and development has been principally focused on the
development effect of monetary and social remittances in rural out-migration communities in Valle Alto, which is located outside the Central Valley of Cochabamba. These studies mainly emphasise the developmental outcomes of transnational labour migration on farming and the livelihoods of rural households. For instance, it has been argued that transnational migration has resulted in a ‘new Bolivian rurality’ with increasingly affluent rural communities and a transition from smallholder farming to commercialised peach production (Yarnall and Price, 2010: 108, 117, see also Cortes, 2002; de la Torre Ávila, 2006; de la Torre Ávila and Alfaro Aramayo, 2007; Baby-Collin et al., 2008; Zimmerer, 2011; Strunk, 2012; Jones, 2013; Strunk, 2013; Zimmerer, 2014; Zimmerer and Rojas Vaca, 2016). Other studies have addressed the issues of migration-induced labour loss as a source of soil erosion (Zimmerer, 1993), decreasing monetary and social remittances due to declining tendencies to return (Jones and de la Torre, 2009; Jones and de la Torre, 2011), migration-related family disintegration as a threat to family happiness and wellbeing (Jones, 2014a; Bastia, 2015; see also Bastia, 2011b; Parella, 2013), the vulnerability of grandparents who stay behind as caregivers for migrants’ children (Bastia, 2009), the gendered character of migrant networks (Bastia, 2007), and temporary changes in the patriarchal family during and after women’s migration (Bastia, 2011a; Bastia and Busse, 2011).

Notwithstanding the large quantity of the previous studies on the migration-development nexus in Bolivia, there are some empirical gaps that this dissertation attempts to target. First, while several investigations have considered the development outcomes of transnational labour migration, the factors that determine the remittance behaviours of Bolivian migrants are not well understood. Hence, in paper I, I study migrants’ household-level characteristics in their place of origin and their individual-level characteristics in their migration destination that affect the amount and use of monetary remittances the migrants send to their households of origin in Cochabamba. Second, in addition to the topic of migration-induced family separation, the previous research has mainly highlighted the positive developmental effects of transnational migration, often neglecting the challenges involved in a migratory process and the fact that not all migrants manage to follow the expected path leading to a migration experience with ‘successful’ outcomes in economic terms. Accordingly, paper II focuses on the subjective wellbeing of migrants and migrant households and sheds light on the multifaceted nature of the challenges that can impede migrants in achieving their initial
migration goals. Third, while the topic of migration-driven agricultural changes has been extensively studied in the rural setting of Valle Alto, the previous work on the effects of transnational labour migration on farming practices and land use in the agricultural communities located on the outskirts of the major cities is scarce. This rapidly changing hybrid peri-urban space is explored in paper III to investigate whether farming practices are intensified or disintensified as a consequence of agricultural households’ increasing involvement in transnational migration.

1.6 Outline of thesis

This dissertation consists of a comprehensive summary and three empirical research articles. While the comprehensive summary presents the main conceptual, contextual, and methodological aspects of the study and discusses its overall findings, the three articles serve to answer the separate research questions by focusing on different empirical settings. Whereas the articles are separate entities, each of which constitutes its own study, together they contribute to the understanding of the diverse impacts of transnational labour migration on migrating individuals and their households of origin in the agricultural valleys of Cochabamba.

The rest of the comprehensive summary is organised as follows. Chapter 2 presents the main theoretical concepts, which are related to the themes of transnational migration, rural and peri-urban livelihoods, and agricultural land use change. Chapter 3 describes the contextual background of the empirical studies in Bolivia. First, the role of migration in the department of Cochabamba is discussed. Second, the importance of the Cochabamba valleys for Bolivia’s agricultural production is touched upon. Third, increasing land use change from rural to urban in and around the city of Cochabamba is reported. Chapter 4 includes the relevant methodological aspects of this thesis, describing how the study was designed, how the case study sites were selected, the applied methods and data sources, and specific considerations regarding the used methodology and its limitations, positionality, fluid roles as insiders and outsiders, and research ethics. Chapter 5 summarises the main contribution of each research article and answers the specific research questions. In chapter 6, the overall contribution of the thesis is discussed, divided into the themes of livelihoods, migration, and agricultural change. Finally, summaries of the thesis are given in Swedish and in Spanish.
2. Theoretical background

In this chapter, the main concepts of the thesis are explored and discussed by referring to the previous academic literature within the themes of transnational migration, rural and peri-urban livelihoods, and agricultural land use change. In addition, globalisation is mentioned as a driver of these phenomena. In section 2.1, transnational migration is discussed by paying particular attention to the concepts of transnationality and translocality. In section 2.2, migration decision-making, including choice of destination, is addressed, by especially considering social networks as the determinants of migration and migrants’ agency in decision-making. In section 2.3, the increasingly diversified livelihoods of agricultural households are described and linked to processes of multi-locality and urbanisation. In section 2.4, transnational migration is presented as a driver of agricultural land use change. Moreover, the concept of landscape is related to migration-induced agricultural change. In section 2.5, agricultural progress and intensification are discussed using the term landesque capital.

2.1 Transnational migration

In Ravenstein’s work ‘The laws of migration’ that was published in 1885, it was already recognised that there is a return current corresponding to every major migration flow (Gmelch, 1980). However, the early studies on South-North labour migration flows mainly considered migration as a one-direction process resulting in permanent stay in the migration destination (see Rhoades, 1978; Reichert, 1981). These studies mostly considered how labour migrants were received and settled in Western societies (Reichert, 1981), thus neglecting circular and seasonal patterns and the return migration aspect, which are highly related to economic development in the community of origin (Rhoades, 1978). Another assumption of the early research on South-North migration was that labour migration was not understood as a decision involving whole households. How-
ever, according to the new economics of labour migration theory (NELM), such migration began to be considered a household investment strategy to increase or diversify household income, as a single family member was ‘sent’ to work at a migration destination for a temporary period. Migration costs were often covered by the household of origin and, in return, family members working abroad sent a large share of their earned salary to their household of origin (Taylor, 1987).

When studying the transnational aspect of migration, internationally migrated household members’ active belonging in two countries is emphasised as they have dual homes. Hence, transnational migrants work and live in their destination country; however, they continuously operate across country borders by maintaining close contact with their country of origin (Portes et al., 1999). By recognising and supporting the transnational ties of migrants, scholars have shown that migration does not need to lead to brain-drain in out-migration countries but can contribute to local development, for instance, through transnational enterprises driven by migrants (Portes and Yiu, 2013). In general, transnationalism signifies linkages over national frontiers connecting people, institutions, goods, and ideas throughout the world. The emergence of transnationalism and studies on transnationalism has often been linked to increasing globalisation (Vertovec, 1999). Thus, international migrants of the transnational era are more likely ‘to live jointly’ in two countries than to adapt their former life to the conditions of the new country (Weeks and Weeks, 2015: 122). Such migrants have also been described as transmigrants who are firmly settled in their migration destinations but, at the same time, their daily lives are interconnected to their home country through multiple ties (Glick Schiller et al., 1995).

The concept of translocality has been used to understand the complexity and multidirectional connections in social space that function as a connection between a variety of localities such as migrants’ place of origin and their migration destination. These linkages are supposed to contribute to ‘the circulation of resources, practices and ideas’, which ultimately has an impact on the interconnected localities (Greiner, 2011: 610). Thus, through a focus on translocal livelihoods, translocal households’ livelihood strategies can be better understood by giving importance to the multiple locations to which these households are connected. Thus, translocal households are seen as cooperative units striving for a joint liveli-
hood strategy as their way out of poverty (Islam and Herbeck, 2013).

2.2 Migration decision-making

The study of migration decision-making is founded on several rather isolated theories and models that are often based on different academic disciplines and operate at varying analytical levels (Massey et al., 1993). One reason for the lack of a consistent theoretical foundation in the understanding of the motives for migratory processes is a dualistic differentiation between agency and structure in migration theory (Bakewell, 2010). Accordingly, the early studies mostly investigated the reasons behind a migration decision using either an individual perspective focusing on the migrant’s agency or through a structural approach, in which the structural conditions in the societies of origin and the destination lead to a decision to migrate (Massey, 1990). However, the more recent literature argues that migration is driven by an interplay between wider social structures and a migrant’s individual aspirations, which may vary according to the migrants’ intersectional characteristics such as gender, ethnicity, and social class (Van Hear et al., 2018).

In studies on network theories and migration as a household-level livelihood strategy, the migration decision is often considered to be the result of several structural and individual factors. Together, these factors sometimes lead to rather spontaneous migration outcomes in situations in which structural conditions are mediated through networks based on social relations (Boyd, 1989). Social networks provide both information and assistance for new migrants, often having an impact on the decision to migrate and the choice of migration destination (Massey and García España, 1987; Haug, 2008; de Haas, 2010). In terms of financial, human, and social capital (de Haas, 2010), networks hence function as a way to reduce costs and the risks involved in international migration (Massey and García España, 1987; Haug, 2008), particularly in the initial state of migration from an out-migration community. In addition, the presence of family networks in the migratory process is presumed to contribute to higher economic returns (Winters et al., 2001). However, a recent study finds that these networks often embellish the impacts of migration for wellbeing, for instance, when they persuade Mexicans to migrate to the United States (Garip and Asad, 2016). The theories on social networks as the determinants of migration have also
been criticised for too great of a focus on labour supply-side factors and for often lacking the causal connections of important actors on the labour demand-side such as employers in the North (Krissman, 2005).

In the recent research, the concept of feedback as ‘a social mechanism’ has been used to cover both social networks and ‘other factors, such as the changing immigration regimes, the migration industry of travel and employment agencies, class relations and so forth, that shape migration patterns’ (Bakewell et al., 2016: 5). Such feedback mechanisms can be categorised into endogenous mechanisms and contextual mechanisms; the former including social networks, remittances, and the ‘migration industry’ of different actors and the latter referring to more indirect means by which migration affects wider contextual settings in the place of origin and in the migration destination (de Haas, 2010: 1590). Altogether, these direct and indirect feedback mechanisms either encourage or discourage subsequent migration through a particular migration corridor (de Haas, 2010; Bakewell et al., 2016). To study the complex set of external factors that together form the structural context within which migrants potentially make their decisions to migrate, the concept of drivers has also been applied (Van Hear et al., 2018). In other words, instead of solely explaining migration, these drivers rather provide a setting that may affect how migrants engage their agency based on individual aspirations and desires. Such decisions potentially further change the wider structural conditions of migration in the place of origin and in the migration destination (Van Hear et al., 2018; see also Carling and Collins, 2018).

The migration literature has generally included several dichotomies that may hinder the application of established migration theories in contemporary migratory processes. One binary is the distinction between forced and voluntary migration (e.g., King, 2002; Erdal and Oeppen, 2018). For instance, the indebtedness of voluntary labour migrants can be seen as a factor limiting migrants' freedom as it might force them to continue migrating and working in dangerous and exploitative conditions (O'Connell Davidson, 2013; see also Johnson, 2014). However, the migration of refugees, who are counted as forced migrants, also referred to as involuntary migrants, may be facilitated, protected, and supported while the actions of voluntary migrants seeking better economic opportunities are more easily interpreted as illegal and criminal. Migration theories actually assume that migrants can freely make decisions about their migration, whereas in reality, it may not be that simple (Bake-
well, 2010; Erdal and Oeppen, 2018). For instance, in the emerging academic literature on migration derived from environmental change, the categories of involuntary and voluntary migrants are fuzzy and intermixed (e.g., Black et al., 2011, see also Richmond, 1993; Hugo, 1996; Castles et al., 2014; Fussell, 2012). In addition, it has been suggested that voluntariness should be assessed in the context of available acceptable alternatives (e.g., Erdal and Oeppen, 2018) or acknowledging that available options would violate one’s human rights (Bartram, 2015). Migrants’ agency and power to make their own decisions are also likely to vary among individual members of households, for instance, along gender lines (Hoang, 2011). As a consequence, any individual desire to migrate must first be negotiated at the household-level due to prevailing patriarchal social structures (Paul, 2015). While there has been an increasing feminisation of migration since the 1990s, women migrants are often more exposed to vulnerable living and working conditions in their migration destination (Benería et al., 2012).

2.3 Livelihood diversification

The livelihood concept refers to a variety of mechanisms of households to gain access to income sources and assets to guarantee survival. Therefore, both economic and non-economic means of survival are included in the concept (Ellis, 2000) such as families’ access to skills, social networks, and natural resources. Hence, the approach stresses that even the most marginal rural households have some assets upon which they can build their living, differentiating between human, social, natural, physical, and financial capital (de Sherbinin et al., 2008). The livelihoods approach has mainly been used to study households’ survival in the research on rural development by focusing on the complex ways in which rural households earn their living. However, due to the increasing importance of rural-urban linkages and growing rural-to-urban migration, the livelihoods approach has also become relevant to urban environments (Thieme, 2008).

In developing countries, it is common for agricultural households to have other income sources in addition to farming. Even in the context of industrial countries, such diversification through multiple income producing activities has been recognised, described in the literature as pluriactivity (Ellis, 2000). Due to increasing globalisation and neo-liberalisation, there has been a transition from com-
munity-based solidarity to more diversified livelihoods that often rely on multiple localities (de Haan and Zomers, 2003; Ribeiro Palacios et al., 2013), which is sometimes referred to as multi-local livelihood strategies (de Haas, 2006). Hence, it is evident that both internal and international migration can be included as one of the main livelihoods in the rural and urban households of the Global South (de Haan, 1999). The diversification of rural households’ livelihoods through increasingly non-local and non-traditional economic activities has also been referred to as the new rurality (Zimmerer, 2014). Livelihood diversification is an important risk-reducing strategy for marginal households as it allows them not to be merely dependent on one type of asset, and their living is less affected, for instance, by seasonal variation, market failures, or an event of unemployment (Ellis, 1998; Ellis, 2000). Although livelihood diversification might not increase actual household income, it provides additional economic security in the case of lost harvests, crop price falls, and similar events in societies lacking risk-reducing insurance systems (Massey et al., 1993). Therefore, livelihood diversification is considered by researchers to be an important method for reducing poverty, particularly in rural areas (Ellis, 2000).

Due to land shortage and an emerging urge to diversify traditional rural livelihoods, processes of urbanisation often result in increasing off-farm and non-farm income-generating activities, labour migration, and changing agricultural land use in peri-urban sites. However, instead of threatening agricultural production (see, e.g., Su et al., 2011), urbanisation can actually be advantageous for agricultural households due to their proximity to growing urban markets (Satterthwaite et al., 2010). Even when households have increasing access to off-farm and non-farm income sources due to urbanisation, rural-urban linkages, and migration, those households often strive to maintain their agricultural production as a part of their livelihoods (Lerner and Eakin, 2011). For instance, in families involved in international migration, agricultural activities might be maintained as an economic activity that mainly has cultural and symbolic significance. Even if there is a transition to less labour-demanding farming practices due to a labour shortage caused by migrating family members (Jokisch 2002; Li and Tonts 2014), it is still important to continue producing food as a way to reduce risks in case of unemployment or decreasing demand for a non-agricultural labour force (Lerner and Eakin, 2011).
2.4 Changing agricultural landscapes

While the impacts of transnational labour migration on agricultural land use in migrants’ villages of origin have been investigated in numerous studies, both by using qualitative and quantitative approaches, there is no clear consensus of outcomes (e.g., Gray, 2009). Rather, it seems that migrants’ individual characteristics such as gender and ethnicity, the temporal phase of migration, and the contextual setting of the out-migration community determine whether migration will result in intensified, disintensified, or unchanged farming activities (Jokisch 2002; Taylor et al., 2006; Aguilard-Støen et al., 2016). As migrant households generally have less access to a labour force, migration often leads to the disintensification of farming practices (Black 1993; Preston et al., 1997; Sikor et al., 2009); nevertheless, farming is mostly maintained as a secondary, but culturally important, livelihood activity (Jokisch 2002; McCarthy et al., 2009; Li and Tonts 2014). Although migrant families usually have increased access to economic capital through remittances, this additional income is not necessarily used to intensify already existing agricultural production (Black 1993; McCarthy et al., 2009; Li and Tonts 2014). Instead, in some cases, remittances have been used to buy additional land for extensive production that requires less manpower such as livestock-keeping (Zimmerer 1993; Taylor et al., 2006; Davis and Lopez-Carr 2014; Gray and Bilsborrow 2014). Nevertheless, in other cases, remittance access has resulted in intensified and more commercialised agricultural systems (de Haas 2006; de la Torre Ávila and Alfaro Aramayo, 2007; Wouterse and Taylor 2008; Gray 2009; Moran-Taylor and Taylor 2010; Zimmerer, 2011). Agricultural practices and technologies can also be developed through the improved technical skills of returning migrants, so-called social remittances (e.g., Zimmerer, 2011).

In a few instances, the concept of landscape has been used to describe migration-driven changes in agricultural land use and production. In general, agricultural landscapes have been produced by past inputs of human labour and land investments, which can still be seen as existing landscape infrastructure (Håkansson and Widgren, 2007). In the traditional landscape schools of Sauer, Hoskins, and Jackson, landscape research mostly refers to the empirical study of physical structures and forms of rural environments and their pre-industrial development, observed in a masculinist way using a distanced, objective and decontextualised ‘view from nowhere’ (Sundberg, 2003: 187; Agnew, 2003; Wylie, 2007). According to the school of new cultural geographies, in general, the landscape
concept is applied to interpret the visual symbols of a landscape that reveal its cultural meaning, including the social and political processes that have shaped the physical landscape (Wylie, 2007; Duncan and Duncan, 1988). In addition, by means of the concept, the materiality of landscapes is studied by seeking to understand how they have been produced through the circulation of capital and labour (Mitchell, 2007). Hence, to understand local landscape changes, one must also acknowledge ongoing transnational processes beyond the local (Bebbington and Batterbury, 2001). Moreover, when reading landscapes in different cultural environments, it is important for the reader to know the local cultural and social context to be able to interpret the meaning of different landscape elements (Widgren, 2004).

As an example of linking the landscape concept to migration-induced agricultural change, the term *remittance landscape* was used to describe a transformed agricultural production system in an investigation of an out-migration community in the Philippines. Due to women’s migration and men’s increasing decision-making in the community, a transition from low-risk subsistence farming to the cash-crop cultivation of beans was observed (McKay, 2005). In this context, the remittance landscapes of the bean gardens were created through access to monetary remittances that also produce financial capital enabling transnational migration (McKay, 2003). A different view prevails in a study on the agricultural landscape of California’s Imperial Valley, in which the availability of cheap migrant labour, and thus dead labour due to dangerous migrant journeys, has been an essential prerequisite for the formation of highly productive farming land, particularly at the migration destination (Mitchell, 2007). The concept of *debt landscape* has been proposed for use along with the concept of remittance landscape. It refers to agricultural land that has been transformed by remittances sent by indebted Central American migrants to their households of origin (Johnson, 2015).

### 2.5 Agricultural intensification

In the developing world, rapid changes of agricultural land use along with increasingly diversified rural livelihoods have been linked to processes of economic globalisation (Lambin et al., 2001; Aide and Grau, 2004; Grau and Aide, 2008; Lambin and Meyfroidt, 2010). Land scarcity, linkages to global markets, and interventions of de-
Development aid projects are understood as the main triggering factors of transformation from smallholder farming to agricultural intensification and commodification. As a consequence of the intensification process, there is less need for an agricultural labour force, which is likely to reinforce workers' readiness to seek alternative income sources in the form of non-farm employment and labour migration (Lambin et al., 2001). Agricultural intensification, together with the zoning of land for specific limited uses, are considered to be important strategies to counteract the loss of tropical forest ecosystems and global environmental change caused by the expansion of arable land (Lambin and Meyfroidt, 2011). However, such intensification and its significance for agricultural production should not be simplified, as intensifying only used practices might result in stagnation instead of improvement (Brookfield, 2001).

Despite ongoing large-scale agricultural intensification and commercialisation projects, small-scale family farm units are still observed to be efficient and resilient units of production in many places worldwide (Brookfield, 2008). The concepts of *laboresque capital* and *landesque capital* were introduced in the analysis of how different techniques of agricultural improvement, in the form of capital goods, affect the production of labour-intensive smallholder farms. Laboresque capital refers to machinery that replaces manual labour, and landesque capital refers to techniques that increase land productivity such as fertilisation and irrigation (Sen, 1959). Later, the concept of landesque capital was defined as 'any investment in land with an anticipated life well beyond that of the present crop, or crop cycle' (Blaikie and Brookfield, 1987: 9). Hence, differing from Sen's definition, landesque capital refers to long-term investments such as the creation of terraces and irrigation systems and the removal of stones, which contributes to the future maintenance of agricultural production by reducing the need for labour and other improving input (Blaikie and Brookfield, 1987; Widgren, 2007). As opposed to the monetary capital invested as input in land, 'landesque capital is fixed in space but "fluid" in time' (Widgren, 2007: 61). In general, there has been more focus on the visible techniques of landesque capital in the research, although common techniques that are less noticeable, for instance, tillage or crop rotation, can be equally important for productivity (Davies, 2015).

Due to the uneven distribution of landesque capital in space, there may be considerable differences between agricultural production units with similar environmental conditions locally, regionally, and globally (Widgren, 2007). It has also been shown that there
might be more intensification by landesque capital in tropical dryland areas, which otherwise have rather low agricultural production (Davies, 2014; see also Vitousek et al., 2004). Depending on the cultural context, that which is considered to be landesque capital can vary greatly. For instance, in a study on the pre-Columbian cultural landscape of the Bolivian Amazon, causeways and canals were created to reinforce the inundation of agricultural fields to facilitate transportation; however, according to Western standards, such wetlands should have been drained (Erickson and Walker, 2009).

As landesque-capital landscapes require continuous maintenance to preserve their stability, demographic changes, for instance migration, may result in the degradation of such agricultural infrastructure (Fisher and Feinman, 2005; see also Zimmerer, 1993). However, landesque capital input, for instance, the creation of an elaborated spate-irrigation system, may stimulate transnational migration based on stable household income level and provided social networks (Zimmerer, 2011). While agricultural intensification through landesque capital is often linked to external drivers such as changes in population or climatic conditions, it has also been found that everyday landscape modification tasks can be seen as equal to landesque capital (Davies, 2014). In addition, as mentioned in section 2.4, migrant remittances are not always invested in landesque capital to intensify agricultural production in the migrant’s place of origin (see also Jokisch, 2002). For instance, if local conditions for agricultural improvement are not sufficiently favourable, migrant households might prefer to use remittances for other purposes.
3. Agricultural valleys of Cochabamba

This thesis addresses the themes of transnational migration, rural livelihoods, and agricultural land use change in the agricultural valley region of Cochabamba. In this chapter, the geographical context of the used empirical material is explained. The empirical study is mainly based on data acquired using qualitative methods during three prolonged fieldworks in peri-urban and rural villages around the city of Cochabamba in 2013, 2014, and 2016 and a survey dataset that was collected by the local research centre, Centro de Planificación y Gestión de la Universidad Mayor de San Simón (Ceplag UMSS) in the city of Cochabamba in 2009. In section 3.1, I briefly explain how internal and international migration has generally been evolving in Bolivia and particularly in Cochabamba since the 1980s. In section 3.2, the importance of Cochabamba as an agricultural valley is described. In section 3.3, the recent changes in land use and the process of increasing urbanisation in the study area are clarified.

3.1 Migration

In the mid-1980s, the rural-urban composition of the Bolivian population changed due to processes of rapid urbanisation. In 1985, in particular, thousands of families were relocated from the highland mining areas to urban sites (Hinojosa Gordonava, 2009a). Today, the cities of Santa Cruz, La Paz, El Alto¹, and Cochabamba make up the economic centre of Bolivia, including in total 70% of the country’s urban population (Ledo, 2012). As a result of Bolivia’s internal migration flows during the period from 1976 to 2001, there has been a female predominance in the urban areas and a male predominance in the rural areas (Ledo García, 2005). In 2009, approximately 46% of the inhabitants of the city of Cochabamba were in-

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¹ El Alto is a city located in close proximity to the city of La Paz. Together, they form the metropolitan area of La Paz.
ternal migrants originating from other parts of Bolivia. Approximately 55% of them had their origin in the Altiplano, to be precise, in the departments of Potosí, Oruro, and La Paz (Ledo, 2012).

International migration from Bolivia was mainly directed to Argentina, Chile, Brazil, and the United States until the end of the 20th century. However, international migration flows increased significantly during the 2000s including new trajectories to European countries such as Spain and Italy (Hinojosa Gordonava, 2009b). Historically, Argentina has been the major destination of international migration from Bolivia, with the most significant trajectories to areas near the Bolivian border (Guaygua Choqueguaita, 2010). More recently, many Bolivians have migrated to Buenos Aires and other Argentinian cities where women are mostly employed in domestic work positions, the vegetable trade, and clothing manufacturing, while men work in construction, agriculture, and the textile industry (Bastia, 2007; Bastia, 2011a; Molina and Mulinari, 2013). Emigration to the United States is mostly made up of flows from the Cochabamban agricultural valley of Valle Alto and the city of Santa Cruz, and it has been described as an ideal destination to achieve savings and better socioeconomic status. Bolivian migrants in Brazil often work within the textile industries (Guaygua Choqueguaita, 2010). Emigration to Argentina is mostly made up of young, low-educated people, whereas migration flows to the United States and Brazil to a large extent consist of higher-educated individuals and students (Ledo, 2012). In the more recent migration flows to Spain and Italy, there is a significant female majority of migrants. According to some studies, approximately 67% of migrants to Spain and 70% of migrants to Italy are women, and many of them serve as domestic workers in their migration destination (Hinojosa Gordonava, 2009b). However, the trajectories to the European countries have decreased due to the travel visa requirement launched in 2007 (Nijenhuis, 2010) and because of the economic crisis of 2008 (Guaygua Choqueguaita, 2010).

Bolivian migration is often performed in temporary and circulatory patterns (Dandler and Medeiros, 1988; Zimmerer, 1993; Zimmerer, 2000; Yarnall and Price, 2010). However, this circularity is limited for undocumented migrants in the European countries and in the United States because of existing visa policies. As Bolivians tend to migrate in a temporal and circular manner, often with a planned return, they are also used to remitting a large share of their foreign earnings to Bolivia. From 1985 to 2007, the estimated inflow of remittances increased almost twentyfold (Arroyo Jiménez,
2009). In the late 2000s, Bolivia was one of the South American countries receiving the most significant share of international remittances (Jones and de La Torre, 2009; Jones and de La Torre, 2011). In accordance with information from the Central Bank of Bolivia, approximately 800 million USD received in 2006 were equivalent to 6% of the GDP (Arroyo Jiménez, 2009). However, performed estimations by international organisations suggest that monetary remittances sent to Bolivia from abroad have a total value of 1 billion USD per year (Hinojosa Gordonava, 2009b). If informal transfer channels are included, the received amount of remittances was almost 2 billion USD in 2007 according to the Inter-American Development Bank. A survey conducted by the Central Bank of Bolivia shows that 25% of the remittances are received by the country’s richest households and 29% by the economically most vulnerable households. Thus, international remittances are divided between different social classes more equally in Bolivia than in countries such as Nicaragua and Peru (Arroyo Jiménez, 2009). A study conducted in the city of Cochabamba shows that the major part of sent remittances, 53%, originated from Spain in 2009. A large share of the remittances was used to buy food (Rojas et al., 2012).

The increasing flows of transnational migration over the 2000s can be linked to the ongoing processes of urbanisation in two ways. First, transnational migration has been causing rural depopulation and a reduced workforce at both rural and urban sites in Bolivia (Hinojosa Gordonava, 2009b). Second, transnational migration can also be linked to the growing urbanisation as most of the migrants have a desire to return, and it is therefore common to invest remittances in the construction of houses (for desire to return, see, e.g., Bastia, 2011b; Jones, 2011; Jones and de la Torre, 2011). These houses are often built at urban sites and on the outskirts of the growing cities. Consequently, transnational migration has resulted in the peri-urbanisation of previously rural sites, particularly in Valle Alto (de la Torre Ávila and Alfaro Aramayo, 2007; Yarnall and Price, 2010; Strunk, 2013). However, in particular in Valle Alto, several of these peri-urbanised places are nearly depopulated during most of the year as migrated residents work and live abroad and only rarely visit Bolivia, for instance, during the major festivities.
3.2 Agricultural production

The valley region of Cochabamba is divided into four adjacent valleys located at an altitude from 2500 to 2900 metres above sea level: *Valle Central* (the Central Valley) consists of the city of Cochabamba and its immediate surroundings, *Valle Alto* (the High Valley) contains several colonial towns south of Cochabamba, *Valle Bajo* (the Low Valley) includes the city of Quillacollo and its neighbouring municipalities, and the Sacaba Valley covers the city of Sacaba and its environs (Figure 2). This valley region is characterised by its ecological diversity, temperate semi-arid climate, and fertile agricultural land that has been traditionally used for the cultivation of maize and grains that cannot be successfully raised in the Altiplano. Therefore, historically, the region was strongly linked to the western highlands as the bread-basket of the Incas. Later, during the colonial era, Cochabamban grains were mainly produced to be used for alimentation in the increasingly important mines and growing urban centres of the Altiplano (Grieshaber, 1980; Larson, 1998; Zimmerer, 2000). In the late 1800s, the hacienda structure began to decline in Cochabamba, and the number of land properties began to increase. This change happened earlier than in other parts of Bolivia, which has been explained by the decreasing profitability of agricul-

![Figure 2. The valley region of Cochabamba. Source: Map is original by Johanna Carolina Jokinen; ASTER GDEM is a product of METI and NASA](image-url)
tural production in Cochabamba when the first railroads were constructed from the Bolivian high plateau to the Pacific coast. Due to the stagnation of the agricultural production in Cochabamba, maize was increasingly grown for the production of chicha, a local fermented maize beverage. In the early 1900s, farmers’ indebtedness and decreasing land values contributed to the further division of the remaining haciendas. Thus, the transition from hacienda production to smallholder agriculture had already been completed in the Cochabamba region by the agrarian reform in 1953 (Jackson, 1989).

The agricultural cycle of the Cochabamban valleys traditionally follow the precipitation distribution. Thus, rainfed produced crops are generally sown from September to November, or sometimes up to first weeks in January, depending on yearly variation of the first rainfalls (Jackson, 1989). The rainy season usually lasts until February or March, and maize and other grains are harvested from April to June. The climatic conditions are drier in the Sacaba Valley than in the other valleys of Cochabamba (Jackson, 1989; Larson, 1998), especially in comparison to Valle Alto and Valle Bajo. As droughts are rather common in the valley region of Cochabamba, the agricultural production is also supplied with irrigation water that mainly originates from glacial lakes and artificial rainwater reservoirs in the surrounding mountains, which is distributed through extensive and complex irrigation canal systems (Larson, 1998). Overall, the rainfed irrigation water is not evenly distributed between the different agricultural communities as shown in paper III (see also Mair, 2012; Umbarila et al., 2015). Similar to other Andean regions, there is a long tradition of irrigation in the agricultural valleys of Cochabamba. For instance, in the municipality of Tarata in Valle Alto, sedimentological and geomorphological studies have shown that an elaborate floodwater-canal system for irrigation purposes was probably already functioning in 3500 BP (Zimmerer, 1995). It has been suggested that colder climatic conditions in the 1400s and 1500s may have contributed to the creation of terraces, among other landesque-capital-based intensification, which ultimately might have spurred the practice of irrigation in the Cochabamba valleys. In modern times since the mid-1900s, there have been numerous development projects that encourage irrigation in the region, often based upon ancient irrigation techniques (Zimmerer, 2000).

As of today, Valle Bajo, Valle Central, and the Sacaba Valley are characterised by smallholder agricultural production, mainly practised on privately owned land, and there is clearly an economic need for livelihood diversification beyond on-farm activities in peasant
households (Ledo et al., 2013b). For instance, in the Sacaba Valley, the majority of the peasants own land up to only 1.5 ha, which is not enough for agriculture to be a main income source (Umbarila et al., 2015). In Valle Central, cultivation is focused on lettuce, onions, tomatoes, and alfalfa; additionally, both cattle keeping and pig farming are practised. Valle Bajo’s agricultural production is composed of aviculture, cattle keeping, pig farming, sheep farming, and the production of a variety of crops and fruits, including maize, potatoes, onions, garlic, carrots, lettuce, cabbage, tomatoes, green beans, broad beans, alfalfa, wheat, barley, oca, papalisa, cut flowers, plums, peaches, apples, apricots, lemons, and avocados. In the Sacaba Valley, in addition to cattle and sheep keeping, aviculture is practised to a lesser extent, and maize, potatoes, green beans, barley, wheat, onions, and cut flowers are mainly cultivated (Ledo et al., 2013b). In Valle Alto, approximately 50% of the population works with agriculture (Guzmán and Ledo, 2013), focusing mainly on the cultivation of maize and potatoes and on cattle keeping (Zimmerer, 2011). In addition, commercialised peach production has been steadily increasing in Valle Alto, stimulated by the established migration flows to the United States (de la Torre Ávila and Alfaro Aramayo, 2007; Yarnall and Price, 2010). Intensive dairy-cattle rearing is principally concentrated in the municipalities of Cochabamba, Colcapirhua, and Quillacollo (Ledo et al., 2013b).

3.3 Urbanisation and land use change

The city of Cochabamba was founded in the end of the 1500s as a result of the emerging hacienda-based agricultural production for the mines of Potosí (Ledo García, 2009). In 2009, there were approximately 2 million inhabitants living in the metropolitan zone of Cochabamba, including the municipalities of Sacaba, Quillacollo, Colcapirhua, Tiquipaya, Vinto, and Sipe Sipe (Figure 3). There was an increase of at least 1 million inhabitants from 2001 to 2010. Due to this rapid growth in the urban population, the previous urban centres have been merged into a unified metropolitan zone that extends from Sacaba to Quillacollo and Vinto (Ledo et al., 2013a). Approximately 30% of the population consisted of internal migrants in metropolitan Cochabamba in 2012, that is, they were born in another municipality compared to where they currently resided (Ledo, 2015). In Valle Alto, the number of inhabitants was estimated at 1.2 million in 2009 (Ledo et al., 2013a).
Urbanisation has occurred to large extent in an irregular manner and through illegal land acquisition, which means that it can be seen as a major threat to the continuation of agricultural production in addition to droughts that affect certain parts of the region (Ledo et al., 2013a). For instance, in the dairy production zone located south of the city of Cochabamba and in the communities situated around the city of Sacaba, agricultural productivity has suffered and been in decline due to land shortage (Ledo, 2015; Umbarila et al., 2015). As mentioned in section 3.1, a major part of the internal migrants originate from the Bolivian high plateau due to the strong historical connections between the Altiplano and the Cochabamban valleys (Ledo, 2012). They are often former miners or peasants seeking other income sources due to declining agricultural production in their village of origin, caused mainly by global environmental change (see also Valdivia et al., 2013). Therefore, these migrants from lower socioeconomic backgrounds commonly seek housing on the city outskirts to obtain low housing expenses and to still be able to gain off-farm employment in the cities. In addition, conflicts between
farmers and recently settled urban dwellers are common (Ledo García, 2009).

Recently, in addition to the land use transition from agriculture to housing, there has also been a gradual increase in land that is allowed to rest by laying fallow over a prolonged time period, particularly in the Sacaba Valley. This phenomenon is mostly caused by low soil productivity due to a lack of irrigation infrastructure in zones that are prone to droughts. However, in zones that have access to irrigation water, agricultural land is rarely left fallow. It is hazardous to leave farming land abandoned over several years, not only because cultivation potential is lost but also as it exposes the land to illegal land acquisition, which potentially leads to urban transformation of arable land (Umbarila et al., 2015).
4. Research design and methodology

In this chapter, I present the study design and discuss the applied methods and data sources. In section 4.1, I discuss the multiple methods approach as the main guideline to design the thesis and the included three papers. In section 4.2, I explain how the different study sites were selected and how these sites are related to each paper. In section 4.3, I discuss the applied qualitative methods in a detailed manner, and in section 4.4, I also discuss the applied quantitative methods in a detailed manner. In section 4.5, I present the applied visual analysis of remotely sensed data. In section 4.6, I report the main limitations of the chosen methods, and in section 4.7, I report methodological reflections. In section 4.7, I provide ethical considerations.

4.1 Study design

From the beginning, this thesis was planned as a study using the multiple methods approach, which refers to a research project that uses at least one qualitative and one quantitative technique as a methodological combination to examine a very specific research question (Philip, 1998; Bergman, 2008a). In other words, several methods are used to address ‘a broad research question from a number of angels’ (Philip, 1998: 264). Each paper is founded on either qualitative or quantitative data analysis, and the adopted methods were chosen in accordance with what was considered to be the most suitable manner to answer the specific research objective of the paper in question by also considering the availability of applicable data sources (see also Winchester, 2005). While the use of several research techniques might not automatically lead to more rigorous study outcomes (Baxter and Eyles, 1997), this approach gave me valuable knowledge on how to conduct research using a variety of methods, also making it more approachable to evaluate the results of the previous studies regardless of the methods and data material upon which they are based.
Paper I is founded on a quantitative logistic regression analysis of survey data, and paper II is based entirely on a qualitative analysis of ethnographic semi-structured interviews. Paper III includes several qualitative methods and a combination of data sources: interviews, field observations, focus groups with participatory techniques, and visual analysis of historical aerial photographs and satellite images. In addition, statistical analysis of a survey dataset was used to determine the most suitable case study sites for paper III. Therefore, to investigate the thesis aim of _shedding light on different experiences of transnational labour migration using the livelihoods framework to explore the consequences of migration for migrating individuals and their household members in terms of objective wellbeing, subjective wellbeing, and changed practices of agricultural production_, the three papers each provide an understanding based on one method or a combination of several techniques (Table 1). These different methods are not seen as alternative but rather as complementary in seeking to grasp the complex links between the phenomenon of transnational migration and its identified outcomes in the selected out-migration communities in Cochabamba (see also Valentine, 2001; Winchester, 2005).

<table>
<thead>
<tr>
<th>Research question</th>
<th>Case study</th>
<th>Methods</th>
<th>Year</th>
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<tbody>
<tr>
<td>I How do migrants’ household characteristics in their place of origin and their individual characteristics in their migration destinations affect the amount and use of remittances the migrants send to their households of origin?</td>
<td>Non-agricultural and agricultural migrant households in the city of Cochabamba and its surroundings</td>
<td>Logistic regression analysis of survey data (n=2,298)</td>
<td>2009</td>
</tr>
<tr>
<td>II How and why do social networks of family members and friends affect individual migrants’ subjective wellbeing?</td>
<td>Agricultural migrant households in Pucarita Chica, Itocca, López Rancho, Molino Blanco, Lava Lava Alta, Aguada, Aranjuez, Arrieto, Chullpas, and Waóacawa</td>
<td>Qualitative analysis based on ethnographic interviews (n=45), of which 8 are explored more closely</td>
<td>2013 - 2014</td>
</tr>
<tr>
<td>III How does transnational labour migration affect agricultural practices and land use in peri-urban out-migration communities?</td>
<td>Agricultural migrant and non-migrant households in López Rancho/Lava Lava Alta and Molino Blanco</td>
<td>Qualitative analysis based on interviews (n=44), observations, 4 focus groups, and visual analysis</td>
<td>2013 - 2016</td>
</tr>
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In paper I, the research question of how migrants’ household characteristics in their place of origin and their individual characteristics in their migration destinations affect the amount and use of remittances the migrants send to their households of origin is explored through a quantitative logistic regression analysis of a novel dataset. While there was no possibility for me to collect a sufficient amount of survey material on the studied agricultural communities, I used existing data on the city of Cochabamba and its surroundings. However, in addition to urban households, this database includes some of the peri-urban agricultural villages where I performed interviews. This approach thus made it possible to obtain an improved understanding of the remittance behaviours of the agricultural households’ migrated household members, despite the urban focus of the paper.

In paper II, there is a very specific focus on ethnographic stories of challenging conditions of migration to investigate how and why social networks of family members and friends affect individual migrants’ subjective wellbeing. While the used empirical material originates from several peri-urban and rural villages near the city of Cochabamba, the migrants of agricultural households are studied. A qualitative approach was suitable here to obtain results on the migrants’ various experiences, ‘retaining diversity, variety, and the meaning of research material’ (Philip, 1998: 266).

In paper III, a parallel analysis of two nearby case study sites, López Rancho and Molino Blanco, is conducted to answer the question of how transnational labour migration affects agricultural practices and land use in peri-urban out-migration communities. While this paper focuses on the chosen communities and the prevailing differences between them, it also provides a description of local farming practices and clarifies the existing migration patterns and processes of urbanisation. To gain a broad understanding and to grasp the complexity of several interlinked processes in the studied agricultural landscapes, a variety of qualitative methods was preferred. Additionally, as the research question was examined using multiple data sources, triangulation was performed. This technique generally allows a more comprehensive understanding than relying on only one type of data (Valentine, 2001), and, in this case, the use of observations, focus groups, and remotely sensed data also functioned to validate the data results provided by the main data acquisition method of semi-structured interviews (Hammersley, 2008). As mentioned above, a quantitative statistical analysis of survey data was used to determine the case study site selection of this paper.
Therefore, there are elements of explanatory design of the mixed methods approach in the research process, as the survey data were collected and analysed first, and, thereafter, a qualitative approach was used to obtain a deeper understanding of the initial data results (Creswell et al., 2008).

4.2 Case study selection

The empirical study of this thesis was conducted in the city of Cochabamba and its nearby agricultural communities. In the initial phase of my project, I already knew that I could use survey data on international migration from the city of Cochabamba that was collected and processed in 2009 by researchers at Ceplag UMSS (for more details, see Ledo, 2012). Therefore, I chose to conduct the qualitative research in villages located in the department of Cochabamba. Here below I explain how I selected ten agricultural communities as empirical case study sites.

During my first fieldwork in Bolivia from November 2013 to January 2014, I conducted interviews in three different locations to obtain an overview of whether there are differences in migratory processes and their impacts on agriculture between these locations. I mainly interviewed agricultural families with migrated household members. The study site selection process was guided by various criteria. First, agricultural communities and municipalities with a significant number of internationally migrated household members were identified. Second, to enable a better understanding of the role of contextual factors, sites with differing environmental conditions, agricultural landscapes, levels of rurality, and migration flows were preferred. Third, to facilitate my analysis of land use change through the use of satellite images, sites that appeared in several high spatial resolution images since the early 2000s were identified. Fourth, as I was not able to be immunised against yellow fever, I decided to conduct research only at sites located above 2300 metres above sea level to avoid mosquito bites (see also Jokinen and Caretta, 2016, on how my embodied condition additionally directed the case study site selection). In addition, for safety reasons, I was strongly discouraged from conducting interviews at sites with problems regarding the cultivation of illicit crops.
The initial chosen study sites included the peri-urban communities of Pucarita Chica and Itocta south of the city of Cochabamba, the peri-urban communities of López Rancho, Molino Blanco, Lava Lava Alta, and Aguada east of the city of Sacaba, and the rural communities of Aranjuez, Arbieto, Chullpas, and Waóacawa in Valle Alto (Figure 4). Each community is governed as an Organización Territorial de Base (OTB), which is a decentralised form of governance with elected community leaders that ‘are responsible for developing plans for public works projects, securing funding from municipal governments and organising communal labour projects such as the maintenance of roads, irrigation canals and plazas’ (Strunk, 2014: 1702). As it was difficult to find several migrant households in each community, interviews were conducted in a few nearby communities in every location.
Figure 5. Dairy cows in the peri-urban community of Pucarita Chica, located south of the city of Cochabamba. Source: Johanna Carolina Jokinen (2013)

Figure 6. Agricultural livelihoods of the households of Pucarita Chica are increasingly threatened by the process of informal urbanisation, decreasing soil productivity, and changing climatic conditions. Source: Johanna Carolina Jokinen (2013)
Figure 7. Agricultural workers harvesting onions in the peri-urban community of López Rancho, located east of the city of Sacaba. Source: Johanna Carolina Jokinen (2013)

Figure 8. Irrigated fields in López Rancho. Source: Johanna Carolina Jokinen (2014)
Figure 9. House constructed by returning migrants in the peri-urban community of Molino Blanco, located east of the city of Sacaba. Source: Johanna Carolina Jokinen (2014)

Figure 10. Cultivation of maize, alfalfa, and cut flowers in Molino Blanco that is surrounded by more urbanised communities. Source: Johanna Carolina Jokinen (2014)
Figure 11. Cultivated fields in the rural community of Aranjuez, located in Valle Alto. Source: Johanna Carolina Jokinen (2014)

Figure 12. Next to traditional adobe houses, a Western-style brick house constructed by returning migrants in the rural community of Chullpas, located in Valle Alto. Source: Johanna Carolina Jokinen (2014)
The first location outside the city of Cochabamba, including Pucarita Chica and Itocta, was chosen as the Ceplag UMSS co-workers were conducting a study there, which means that there was already some data available and I could begin my project using previously established contacts with the community leader and households. Pucarita Chica and Itocta residents mainly engage in dairy-cattle keeping (Figure 5), as cultivation has become increasingly challenging due to rapid and uncontrolled urbanisation, decreasing soil productivity, and changing climatic conditions (Figure 6). My choice of the second location of the Sacaban communities was linked to a research project of five Bolivian PhD students at Ceplag UMSS. As they were initiating their PhD studies in 2013, there were hardly any contact persons in the Sacaban villages; however, together we established contacts with several community leaders and households. The location was of interest for my study as it is still agricultural but has changed drastically during the last decade, due mainly to urbanisation. However, the location is still less urbanised than the first study location outside the city of Cochabamba (Figures 7, 8, 9, and 10). As the Sacaba valley has been traditionally one of the most important grain producing places in Bolivia (see also Jackson, 1989), the urban expansion, including illegal land acquisition, is seen as a constant threat to the livelihood of local farmers in these Sacaban communities and to food security in Cochabamba. In the third location of the communities of Valle Alto, there were no previously established contacts with local farmers. However, this location was included as it is still more rural and less affected by urbanisation processes than the other two locations (Figures 11 and 12). Valle Alto is an important producer of grains and other food crops; however, during the last decades, there has been an increase in commercialised peach production supported by international remittances (see also Yarnall and Price, 2010; Jones and de La Torre, 2011; Zimmerer, 2011; Strunk, 2012; Strunk, 2013; Zimmerer 2014; Zimmerer and Rojas Vaca, 2016).

I conducted my second fieldwork in Bolivia from October to December 2014, when I chose to perform only field studies in two of the previously visited communities: López Rancho and Molino Blanco outside the city of Sacaba. These two locations were chosen as there are similar types of migration flows present in the commu-

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2 These Bolivian PhD students conduct their studies within a degree programme financed by Sida. Consequently, they have engaged in prolonged study periods at the Swedish University of Agricultural Sciences (SLU) and Lund University in Sweden.
nities; however, they differ regarding socioeconomic household conditions, access to irrigation water, local water and land governance, and the processes of internal in-migration. Therefore, I could compare how the contextual setting might affect specific migration outcomes in each community. As there were survey data on migration and agricultural practices available on the Sacaban communities, it was easy to compare between different study sites, for instance, regarding out-migration flows and socioeconomic household conditions. The conducted interviews were similar to the previous ones; however, they were more focused on how agricultural practices and land use have changed over the last decades. To determine whether there are differences between migrant and non-migrant households, this time, I also interviewed several non-migrant households.

Figure 13. Informally constructed housing at sites with lacking infrastructure and marginal socioeconomic conditions on the southern hill slopes of the city of Cochabamba. Source: Johanna Carolina Jokinen (2016)

During my third fieldwork in Bolivia, which was performed in connection with a longer stay as a visiting PhD student at the Ceplag UMSS from November 2015 to June 2016, I mainly visited the communities of López Rancho and Molino Blanco to conduct additional interviews; to collect other, still-lacking, data on agricultural practices, land use, and local water governance; and to present pre-
liminary study results. To deepen my knowledge on different urban and peri-urban locations of the city of Cochabamba, I also conducted field visits in these places (Figures 13 and 14). The visits were coordinated according to the spatial units used in the survey data analysed in paper I, and I performed field mapping, shorter interviews, and observations in the visited locations (Figure 15).

Figure 14. Informally constructed housing at sites that are potentially dangerous in the southern parts of the city of Cochabamba. Source: Johanna Carolina Jokinen (2016)

4.3 Interviews, observations, and focus groups

Qualitative semi-structured interviews were employed as the main method in this thesis. In total, 66 interviews were conducted (Appendix 1). When conducting the interviews with agricultural households, I used an interview guide with 54 questions divided into different themes: personal data, family composition, housing and socioeconomic conditions, family activities, international migration, remittances, agricultural activities, and final questions. During the interviews, I did not always follow the question order but used the interview guide as a checklist to ensure that I had covered all the themes. If other interesting themes appeared, additional follow-up
questions were asked. I also interviewed several key informants, including former and present elected community leaders, coworkers from the local irrigation association, the Asociación de Regantes de Agua Punta (ARAP), and agronomists living and/or working in the communities. During the key informant interviews, several additional questions were asked regarding agricultural practices, water and land governance, land use, socioeconomic household conditions, and processes of internal in-migration, urbanisation, and international migration in the studied communities. In the beginning of my first fieldwork, I also conducted a group interview of several community members and a community leader in López Rancho.

![Figure 15. A call shop providing long-distance call service to the most common migration destination countries – including Sweden – in the city of Cochabamba. Source: Johanna Carolina Jokinen (2016)](image)

The use of qualitative interviews allowed me to gain access to individual family histories. Interviewing is also a suitable method to obtain diverse information on personal experiences such as transnational migration histories and to understand complex motives for out-migration (see Dunn, 2005; Dwyer and Limb, 2001). In addition, semi-structured interviews allow informants to use their own expressions and language in explaining their experiences, which is often limited when using standardised surveys (Valentine, 2005).
During the interviews, I was almost always accompanied by one or two field assistants who had an academic background and who worked at the Ceplag UMSS. I conducted almost all the interviews with the assistants; however, I took the leading role, which was possible as I am fluent in Spanish. The assistants sometimes intervened by asking follow-up questions or re-formulating the interview questions to be more easily understandable.

The informants were recruited in different ways. In Pucarita Chica, we began by contacting some of the families my field assistants had been interviewing in their previous study. These families often provided advice about other households we could visit, which is a sampling method that is referred to as snowball sampling (see Valentine, 2005: 117). In other cases, the initially contacted community leaders could indicate households with international migration experience. We also regularly made inquiries when we visited the communities to ensure that we did not miss other potential informants (see Valentine, 2005; Campbell et al., 2006). In addition, we randomly selected households and asked if they had any experience with international migration or if they knew other families we could visit.

Figure 16. Field walk in Molino Blanco. Source: Johanna Carolina Jokinen (2014)
Many times, interview situations were quite spontaneous as we quickly learned that it was better to conduct interviews when we came into contact with suitable informants instead of waiting for a booked meeting (due to several failed attempts to conduct booked interviews). Therefore, interview locations were also improvised, for instance, near agricultural fields or in front of an informant’s house. Nevertheless, these locations allowed me to obtain more detailed information through my own observations on housing, land use, cultivated crops, and applied agricultural practices in natural, everyday life situations (see also Kearns, 2005). Several interviews were also combined with specific field walks when informants provided information about the crops they cultivate and their applied agricultural practices (Figure 16) (see also Börjeson, 2004; Carpiano, 2009; Caretta, 2015). However, in general, informants could always decide if it was more appropriate to hold an interview inside their house, outside their house, or in some other location (see also Elwood and Martin, 2000).

In addition to the interviews and observations, I also organised focus groups together with the field assistants in the communities of López Rancho and Molino Blanco. These focus groups served to validate my preliminary study results through member checking (Cho and Trent, 2006; see also Bradshaw, 2001; Caretta, 2016) and to collect additional information on farming practices. During my first fieldwork, I ran a focus group in each community by employing participatory techniques including scoring, ranking, and mapping exercises (see also Mikkelsen, 2008). In these meetings, I presented the main obstacles for agricultural production according to the previously conducted interviews, and the participants were asked to discuss and to rank these obstacles and to mention additional ones. The participants also provided detailed information on the farming practices for different crops (Figure 17), and the cultivated crops were also scored according to several perspectives, for instance, their nutritional value, economic profitability, and vulnerability to diseases and plagues (Figure 18). I also presented how the land use and environmental conditions have changed in the studied communities by showing aerial photographs and satellite images from the 1960s, 1970s, 1980s, and 2010s. Thereafter, the participants were asked to comment on these changes from their experiential perspective and to identify related land use details on the images (Figure 19).
Figure 17. Using participatory techniques during a focus group in López Rancho. Source: Juan Carlos Totola Herbas (2014)

Figure 18. Scoring exercise during a focus group in Molino Blanco. Source: Juan Carlos Totola Herbas (2014)
Figure 19. Mapping exercise during a focus group in Molino Blanco. Source: Johanna Carolina Jokinen (2014)

Figure 20. Posters presented during focus groups in López Rancho and Molino Blanco. Source: Johanna Carolina Jokinen (2016)
In the end of my third fieldwork, I again organised a focus group in each community, López Rancho and Molino Blanco. The main objective was to present the study results to the community leaders and other community members including those who had participated in my study. To visualise these presentations, I created a poster for each community showing the main findings in text and in images in an easily understandable way (Figure 20). During these presentations, the participants were encouraged to comment on the presented results, especially if they thought that I had misunderstood something or if certain details were missing. In other words, to enhance the qualitative validity of the results, the study participants were asked to verify my interpretations of the interview data (Baxter and Eyles, 1997).

All the interviews and focus groups were recorded, and the recordings were mostly transcribed by the same field assistants who were present during the interviews and focus groups. For papers II and III, I organised the interview material according to relevant themes, and I included my own interpretations as comments on the interview documents. Thereafter, the themes related to each paper’s objectives were categorised in tables and matrices, per interviewee and per analysed community, to identify patterns. My own field observations contributed to a better understanding of the studied themes, particularly the theme of migration-induced changes in farming practices and agricultural land use. In paper III, I include quotations of some interviewed household members to illustrate specific points of interest although the study results are based on all the collected interview material. In paper II, because of its focus on the challenging conditions of migration, the study results are mainly based on the selected ethnographic stories that are presented and explored more closely. The focus group results were only used for paper III.

4.4 Survey databases
A survey dataset was used to conduct a logistic regression analysis in paper I. The survey data covering different themes at the individual and household levels were collected by Ceplag UMSS researchers in the city of Cochabamba in 2009. In the first stage of the survey data collection, a short questionnaire was used that covered spatial information on the surveyed households’ location and demographic data on each individual who was part of these households including
the out-migrated ones. The individual variables of gender, age, place of birth, and the number of previous places of residence were included; in addition, the informants were asked if one or several household members currently or had in the past lived abroad. In this initial stage, a total of 15,396 households located in the 14 districts of the city of Cochabamba were surveyed. In the second stage of the survey data collection, a detailed questionnaire was used to again survey a selection of the previously surveyed households that currently included or in the past had included internationally migrated household members. This second stage was conducted in the selected households directly after the first stage. In this stage, a total of 2,001 households were surveyed (see Ledo, 2012, for more information on the criteria used to select the surveyed households). The questionnaire had 105 questions at the individual level and covered each household member’s socioeconomic characteristics and migratory history since birth as well as the themes of motives, difficulties, remittances, and other aspects regarding international migration. In addition to these questions at the individual level, the questionnaire included 43 questions at the household level with regard to socioeconomic characteristics and land use in the household’s location.

While I did not have any opportunities to influence the questionnaire design and the survey data collection, I accompanied a few Ceplag UMSS surveyors who were conducting a similar type of survey on a different theme during my pre-doctoral visit in Cochabamba in 2011. In this way, I could at least witness the manner in which the surveying was conducted. For the study site selection of paper III, as mentioned in section 4.1, I used an additional survey dataset that was collected by the Ceplag UMSS researchers in the municipality of Sacaba in 2014 (for details, see Ledo García et al., 2015).

To conduct the logistic regression analysis in paper I, I began by selecting the variables that would be suitable as determinants to explain the amount of the remittances international migrants send to their households of origin. This selection was mainly based on the remittance determinants that have been discussed in the previous literature but also on my local knowledge acquired during fieldwork in Bolivia. After the selection was completed, these variables were divided into two identified themes. The theme of the migrants’ household-level characteristics from their place of origin included the variables on quality of life based on the surveyed household member’s assessment, household location, previous agricultural land use in the household location, and how the remittances are used.
The theme of the migrants’ individual-level characteristics in their destination countries included the variables on occupation of the migrant, frequency of migrant visits to Bolivia, migration destination country, and duration of migration. While some variables had several categories, other variables had only two categories including 1 and 0. In addition, a threshold of BOB 707 (USD ~102) per year for the sent remittances was applied. While this threshold is rather low, it is still higher than the monthly minimum wage in Bolivia in 2009, BOB 647 (USD ~94) (Instituto Nacional de Estadística, 2018). As the main focus was to study the remittance behaviours of agricultural households located on the outskirts of the city of Cochabamba, which often have a lower socioeconomic status, and as not all migrants remit regularly, this threshold was determined to be suitable. A detailed table presenting the variables and their different categories and definitions is included in paper I.

The analysis was conducted in two separate models by including the variable on remittance use only in the second model. The analysis results are presented as a table in paper I. The results are based on a sample of 2,298 individual migrants, divided into 2,001 households.

4.5 Visual analysis of remotely sensed data

In paper III, I analysed remotely sensed data to identify changes in agricultural land use. I obtained access to historical black and white aerial photographs from 1962, 1972, and 1983 through the Instituto Geográfico Militar (IGM) located in La Paz. As there is no longer anyone working in the IGM’s archives of aerial photographs, and since there is no functioning equipment to develop additional aerial photographs, it is not possible to purchase copies of aerial photographs. However, after several visits at the IGM, I was eventually able to purchase digitised aerial photographs. As there is no high-resolution scanner at the IGM, this service was facilitated by the Bolivian Air Force located in La Paz. In addition to these historical photographs, high-resolution satellite imagery from Google Earth® from 2006, 2009, 2013, and 2016 were used for the analysis.

For the land use analysis, all the individual agricultural fields of López Rancho and Molino Blanco were digitised in ArcGIS using the aerial photograph from 1983 and a satellite image from 2013. An undergraduate student was employed to perform the task of digitising. After the digitising was completed, the number, area and
perimeter of the created polygons were calculated. Thereafter, a calculation was performed to determine how the number of fields, the total field area, the mean field area, and the mean field perimeter had changed between 1983 and 2013. The results are presented in maps and a table in paper III. Two Google Earth® images from 2006 and 2016 are included in paper III to visualise the rapid process of urbanisation in López Rancho. Although the older aerial photographs and the satellite image of 2009 are not included in paper III, they were used in the focus groups. I also used them to validate my interpretation of agricultural land use of the analysed aerial photographs and satellite images.

4.6 Limitations

Using qualitative methods

In the beginning of my field visits, I soon realised that there are two types of migrant groups in the chosen communities. First, there are internal in-migrants who have mainly migrated from the Altiplano and who are not generally engaged in agricultural practices. They often originate from precarious socioeconomic conditions, and many of them lack knowledge of Spanish. Second, there are households with internationally migrated household members. These agricultural families mostly originate from the case study communities, they often have a slightly higher socioeconomic status, and they mostly speak both Spanish and Quechua, the local indigenous language. Due to the purpose of my study, I wanted to interview members of households with agricultural practices and experiences of international migration. Thus, in addition to the fact that it was difficult to find Quechua-speaking field assistants, I decided to conduct the majority of the interviews in Spanish. In that way, I could have an active role as an interviewer, and I could understand the course of the interviews and have better opportunities to ask follow-up questions. While this practice might have been a limiting factor, the informants were always given possibility of expressing themselves in Quechua if it was necessary. In those rare cases, I asked a Quechua-speaking assistant to translate afterwards during the transcription process. A couple of the interviews were conducted completely in Quechua since the informants were not fluent in Spanish and I happened to have a Quechua-speaking assistant with me.
The use of snowball sampling and having community leaders as the initial gatekeepers might have limited my sample of informants to only certain type of households. However, as mentioned in section 4.3, I also tried to involve other households spontaneously by knocking on doors and by stopping to talk with other farmers I met when I was walking around in the communities. Concerning the interviews, it happened that some informants told more openly about their experiences while the others described their household and its livelihoods much more briefly. In addition, regarding narratives of ‘success’ and ‘failure’ of migration, it is possible that some informants wanted to appear as ‘successful’ migrants even if their migration experience may have involved challenges. However, I never asked directly about challenges of migration but migrants and migrant household members themselves revealed difficulties they had experienced. It is also likely that some informants had difficulties to remember certain details during the interviews, for instance, concerning how they use remittances. Nevertheless, as I also conducted observations, I could often observe as well if the migrant households had been improving their agricultural practices in a systematic manner.

Regarding the observations of the agricultural landscape, a restriction was that I mostly conducted the fieldwork during the rainy season (see also Jokinen and Caretta, 2016). Thus, I did not have the opportunity to observe the seasonal variation of the farming practices. However, I performed the last interviews in May, in other words, after the rainy season and during the main harvesting period. Hence, I could broaden my understanding through these last field visits.

Concerning the focus groups, a real limitation was that it was difficult to recruit focus group participants, particularly in Molino Blanco. Well in advance, prior to the first focus group in Molino Blanco, I visited the informants I previously had interviewed to invite them. The day before the focus group, I visited most of them again as a reminder, and I told we would also provide something to eat and refreshments. However, not one of them appeared, most likely because the focus group would have taken time from their agricultural and household tasks. Fortunately, other participants who I had not previously interviewed were present. However, as I organised the focus groups as a way to conduct member checking, the original plan to invite the same participants I had interviewed failed. To avoid ending up in a similar situation in the subsequent focus groups, I organised the second focus group of López Rancho
in direct connection with a communal meeting. Whereas the participants might have been tired after having attended another meeting before the focus group, there were many farmers present, and they participated actively in the discussion. In Molino Blanco, it was also difficult to organise the second focus group since the villagers had elected a new community leader and, as it turned out, he was not particularly interested in cooperating with the focus group. Instead, I organised the focus group with the help of a former community leader.

Personal safety
To facilitate informant recruitment and to guarantee my personal safety (see also Caretta and Jokinen, 2017), I decided to conduct field visits with field assistants and to visibly carry my identification credential from the local university. Despite being accompanied by the local assistants, we still had occasional difficulties recruiting informants as several potential respondents were unwilling to be interviewed. Additionally, informants sometimes first agreed to an interview but later refused or did not appear at all when we went back at an appointed time. Sometimes the respondents were quite sceptical when we introduced ourselves but agreed to be interviewed when we told them that another community member or a local community leader had recommended that we contact that particular household. There were also clear differences between different communities concerning community members’ willingness to be interviewed. These difficulties in recruiting informants might have been related to my privileged position as a Western academic and the study region’s colonial history (see Valentine, 2005), as ‘the Global North’s legacy remains intertwined with exploitation, abuse and objectification’ (Pearson and Paige, 2012: 74).

I also learnt that villagers, particularly in-migrants originating from the Altiplano, may be highly suspicious about any stranger entering their community. Consequently, we encountered aggression a few times, and not only from angry dogs (see also Punch, 2012). For instance, I once had to interrupt an interview as an intoxicated villager entered the informant’s house and began to state her distrust in me in an aggressive way in Quechua. She probably thought that I would misuse the acquired interview data for some type of criminal intentions and wanted to warn her friend. To overcome these problems, we aspired to present ourselves in communal meetings before beginning to conduct the interviews. In that way, it
was less probable that potential informants would have regarded us as strangers with bad intentions. Another limiting aspect concerning the interviewing was the tradition of chicha consumption among farmers, both female and male. While not all the farmers consumed chicha when working, I had to interrupt a couple of interviews because of the level of intoxication of the informant.

Using quantitative methods and visual analysis

For the analysis presented in paper I, I had to select a set of variables that I considered to be important determinants of remittance as explained in section 4.4. However, as I did not run the analysis by conducting testing with other variables, there might be additional determinants that are even more significant than the ones included in the analysis. It was also challenging to determine a suitable threshold for the sent remittances per year. As I used the threshold of BOB 707 (USD ~102), which is rather low, the results clearly may have been different if a different threshold had been used. Whereas the variable on geographical household location is used as an indication of households’ socioeconomic status, this geographical variable is rough as all the city of Cochabamba is divided into four categories. Therefore, not all the households located in the category of the peripheral south are precarious. However, as the variables on the previous agricultural land use in the household location and the migrant’s occupation abroad can be used as an indication of households’ socioeconomic status as well, it is less probable that the interpretation of the study’s results is erroneous. Hence, the use of various variables strengthens and validates the findings.

With regard to the visual analysis of the remotely sensed data, the main limitation is that the mean size of individual agricultural fields was used as an indication of land fragmentation. While I did not have any data showing land ownership, there are most likely fields that are interpreted as individual that actually belong to the same owner. However, I still find the analysis to be well-grounded to measure land fragmentation as even when a farmer has several dispersed fields of decreasing size, it is more difficult to practise efficient farming in comparison to having larger fields. It was also difficult to interpret some parts of the aerial photographs and satellite images, and there might be misinterpretations that affect the results. This restriction mostly concerns López Rancho as it is common to let land lie fallow there due to limited access to irrigation water, and, thus, it is sometimes difficult to determine if a piece of
land is cultivable or if it is pastoral or unexploited. Regarding the aerial photographs, it was mostly difficult to differentiate between cultivated fields and pastoral land; concerning the aerial images, the main challenge was to distinguish between cultivated fields and pieces of land that were flattened out prior to urbanisation. To minimise the risk of misinterpretation, I used interviews, remotely sensed data from other years, and field mapping to validate my interpretation. As the aerial photographs were georeferenced manually, there might be some minor errors in the measured field sizes.

4.7 Methodological considerations

Before starting with my PhD programme, I had been conducting prolonged MSc fieldwork alone in challenging conditions in Nicaragua, and, in addition, I had done a two-month internship in Colombia, I had completed a six-month period of pre-BA studies in Mexico, and I had a BA in Latin American studies. Based on these experiences, I thought I would easily become accustomed to the Bolivian context, which was a new research environment for me. However, during my first fieldwork in Bolivia, I soon realised the situatedness of knowledge production (Haraway, 1988), and I understood I was clearly not ‘an all-seeing and all-knowing researcher’ (Rose, 1997: 305) based only on my previous studies and field experiences of the Latin American context. For instance, during my MSc fieldwork in Nicaragua, I used to draw a timeline over every informant’s life during the conducted semi-structured interviews. As this timeline included important historical events and personal events in one’s life, it was easier for the informants to remember when climate-related changes happened in the past (Jokinen, 2009; see also Segnastam, 2014). I tried to apply this technique during my first interviews in Bolivia to identify changes in agricultural practices and farming land use. Unfortunately, I did not manage to make it work with timeline drawing as the interview situations were more spontaneous in Bolivia; the informants mostly did not have to offer a table, their time was limited as they were often working with agricultural tasks simultaneously, and, as a consequence, we were sometimes walking around during the interviewing. Thus, it was also crucial for me to be flexible during fieldwork and to change my plans when something did not work in my selected case study locations (see also Billo and Hiemstra, 2013). In addition, I encountered several bodily (Jokinen and Caretta, 2016), emotional (Caretta and Jokinen,
work-life balance related (Caretta et al., 2018) and other challenges during my fieldwork, which made me to realise the importance of practising critical reflexivity in a research process (Rose 1997; Dowling, 2005; Billo and Hiemstra, 2013).

As the interview questions were developed from my Western understanding of transnational migration and agricultural practices, the respondents’ answers might have been limited (see Sundberg, 2003). I tried to overcome this challenge by revising and discussing the interview guide with my supervisors and local field assistants, and by continuously evaluating the interview questions. In general, the informants seemed to understand my interview questions. Nevertheless, a few questions were difficult to understand for most of the respondents. For instance, when I asked how agricultural activities are divided between men and women in a household, I generally had to explain the question in several different ways before it was answered. Even so, I mostly did not receive the answers I was looking for on existing gender differences. Instead, almost all the informants told me that agricultural activities are divided equally between male and female household members and only after inquiring in several ways could they mention some minor differences. Most probably, I did not manage to reformulate the question to make it easily understandable. To finalise every interview, I also had a question on the informants’ future dreams and how they think their life might be in five or ten years. In general, it was difficult to obtain any answers on this question, perhaps because the interviewees did not feel comfortable telling me about their future plans and dreams. When discussing the issue with one of my field assistants, we realised that most of the informants actually talked about their past and the things they would have liked to do in their earlier life. It might be that the informants do not have any concrete dreams as they are more focused on their present life than on any long-term future plans.

As explained in section 4.3, I employed academic Bolivians as field assistants. They were insiders as they knew the local context and could guide me in this context, as I was obviously an outsider. However, on some very specific occasions when interviewing migrants who had lived in Sweden, our roles changed. I could actually relate to some of the migrants’ experiences more easily than the assistants as I had also lived as a migrant in Sweden. Notwithstanding the similarity of certain lived experiences, I admit that my position as a migrant in Sweden is very different and more privileged as I am a white Nordic citizen, highly educated, and fluent in Swedish
Caretta and Jokinen, 2017, see also Bastia, 2014: 238, on intersectionality as a technique to identify 'multiple forms of oppression and privilege /…/ in migration processes'). Although my field assistants were insiders in the Cochabamban context, they were outsiders in the studied communities, and, thus, the informants did not have difficulty sharing their family history in front of them. The assistants were also outsiders because most of them did not speak Quechua and since the majority of the respondents were not academically educated. Therefore, the field assistants’ position as insiders and outsiders was ambiguous (see Mohammad, 2001; Miraftab, 2004). In fact, on several occasions, the villagers thought that one of my assistants was not Bolivian. For instance, they asked me if he knows Spanish, and he was called gringo, a foreigner. During one field visit, I was assisted by a driver with family connections to the visited community. When conducting an interview with a returned migrant in a household the driver indicated, the informant made it clear in the very beginning that the driver could not be present during the interview. While this informant’s prerequisite was respected, the informants did not seem to be uncomfortable otherwise when the field assistants were present during the interviews.

4.8 Ethical considerations

Due to my established contacts with the Ceplag UMSS co-workers, the choice of study objectives, methods, and case study locations were guided by local knowledge and local needs. Moreover, I regularly discussed my advances with the local researchers, and I also presented my findings at research seminars at Ceplag UMSS (Figure 21). During these conversations, I could receive feedback, and several times I was told that I had interpreted some details incorrectly or that I should focus my research papers in a different way to show a fairer representation of migration-induced local development, including its challenges. In addition to my own study, I also tried to contribute in different ways at the local research centre, for instance, by giving some GIS lessons to train the co-workers. This cooperation was an ethical priority to conduct responsible postcolonial research that was created in a dialogue with the locals and, hence, also benefited the local communities (Raghuram and Madge, 2006; Howitt and Stevens, 2005; see also Sundberg, 2003) and was potentially empowering (Scheyvens and Leslie, 2000).
Figure 21. Presenting preliminary study results at a research seminar at Ceplag UMSS in Cochabamba. Source: Sara Poppler Carredano (2014)

Figure 22. Attending a communal meeting in López Rancho. Source: Johanna Carolina Jokinen (2014)
Before starting to conduct the interviews, I contacted the community leaders of the studied communities to present myself and my study. I also asked for permission to perform the study using a written document. In the communities located in Sacaba, I also attended a community meeting in each community to briefly inform the villagers about the study (Figure 22). Before every interview, I also presented myself as a Swedish researcher who is affiliated with the local university and the purpose of my study. The potential informants were asked if they would like to contribute, and if they agreed, I continued with the interview. While most of the potential informants agreed to be interviewed, a few times, a villager was not at home when I went to conduct a previously booked interview as mentioned in sections 4.3 and 4.6. I also always asked if I could record the interview, emphasising that the recording was only for me as a way to remember the details of the interview. I did not ask the participants to sign an informed consent form as this practice would have probably created more mistrust than confidence among the informants (see also Caretta, 2015). The participants could withdraw their participation at any time, and, as mentioned in section 4.6, I also interrupted interviews a few times when it was not meaningful and ethical to continue. While it happened only once that a respondent wanted to interrupt an ongoing interview as noted in section 4.6 as well, a few times, an informant was eager to conclude an interview quickly because of waiting agricultural tasks to be attended to. In the beginning of the interviews, the informants were also told that their names or other identifiers would not appear in the study. In papers I and II, all the informants are presented in an anonymised way. While I mention the names of the communities, I do not display the village of origin of each informant in paper II as the quotations reveal more sensitive information than in paper III.

I did not compensate the informants for their time by paying them as this practice could have undermined the future work of the local researchers in the studied communities. However, as ‘mindful reciprocity is one approach for conducting ethical yet effective research’ (Pearson and Paige, 2012: 73), I looked for other ways to give back. For instance, I photographed the informants by their fields or homes as a way to remember the interview situations better.

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3 This first step was not carried out in the communities of Valle Alto, as I conducted the interviews in a more spontaneous way there. Since these communities were located farther away, I had limited possibilities to travel there; consequently, there was no time to wait for subsequent community meetings to take place.
ter, and I brought them some of the pictures (see also Lindeborg, 2012; Punch, 2012). When the women of López Rancho had completed training in sewing in 2014, they organised an exposition presenting the clothes they had been sewing during the course. I was invited, and I took photographs during the exposition and the following ceremony when the women received their course diplomas, which resulted in photographs that were particularly appreciated. For the focus groups, I had printed historical aerial photographs and satellite images with a plotter showing land use changes in López Rancho and Molino Blanco. As one of the community leaders expressed his interest in these images for the community’s use, I printed a set of images for each community. Having access to this type of geographical data could be important for the villagers as a way to document their local history and to improve their land governance (Stevens, 2001). When finalising my third and last fieldwork, I decided to contribute to the villagers of López Rancho, the community with the most marginal socioeconomic conditions, by donating an industrial overlock machine to be used by the women in their sewing workshop. After my thesis defence, I will also present the final study results at Ceplag UMSS and disseminate the results to the members of the studied communities (see also Dowling, 2005; Howitt and Stevens, 2005, on dissemination of study results to the participants as a strategy to alter power relations between the participant and the researcher).
5. Summary of papers

In this chapter, the three papers written for the thesis are summarised. While each of them applies different methods and has very specific objectives, together, they contribute to the aim to shed light on different experiences of transnational labour migration using the livelihoods framework to explore the consequences of migration for migrating individuals and their household members in terms of objective wellbeing, subjective wellbeing, and changed practices of agricultural production.

Paper I: Remittance behaviours of transnational migrants from Cochabamba, Bolivia: an approach combining household-level and individual-level survey data

This paper is based on a logistic regression analysis of survey data on households with internationally migrated household members in the city of Cochabamba, Bolivia. Previous research on migrants’ remittance behaviours has mainly investigated if migrant’s remittance motivations are based on pure altruism, pure self-interest, or tempered altruism, also called enlightened self-interest. In addition, previous studies of remittance determinants that consider the characteristics of the remittance recipient are uncommon, particularly in the Latin American context. This paper combines household-level characteristics from the migrants’ place of origin with the migrants’ individual-level characteristics in their migration destination countries, and it investigates which variables are the most important as determinants of remitting in terms of the amount and the use of remittances.

The study results show that the monetary remittances spent on savings, construction of housing, education and health, debt repayments, clothing, and housing rent and basic services are strongly associated with the amount of remittances even though a large share of households uses remittances to cover basic expenses. The findings
also confirm the results of the previous research on low-skilled migrants who are more likely to remit, as the larger amount of remittances is associated with the migrant’s non-qualified employment abroad and the migrant’s origin household’s lower socioeconomic status. Overall, paper I highlights the role of remittances as a means to strengthen financial, physical, and human capital in low-income households and to promote local development and objective wellbeing in the outskirts of the city of Cochabamba.

Paper II: (Fai)Lure of migration: learning from various experiences of migration-related wellbeing and the dual character of social networks

In this paper, the narratives of Bolivian migrants and migrant household members on less ‘successful’ migration experiences are analysed. Migrants’ family members often support and influence migration decision-making by providing information and economic resources in the form of supportive networks that are commonly considered social capital for individual migrants. However, these networks are often based on the expectation of ‘successful’ migration, preferably resulting in remittances and the assisted migration of other family members. Therefore, a short-term return when these objectives are not reached is considered a migration ‘failure’ in several previous studies. By exploring various understandings of migration-related wellbeing, this paper attempts to expand the understanding of social networks of family members and friends in terms of their role as social capital for individual migrants.

The results show that a short-term return may increase a returning migrant’s life satisfaction in the place of origin, in particular, when a short-term return is based on a migrant’s own desire to return. However, the migrant’s family members often perceive short-term return only in terms of lost time and economic resources. Expectations of supposedly supportive family networks can therefore burden a migrant who rather prefer to return. The findings of this paper further reveal the dual character of social networks of family members and friends in cases of long-term migration, with or without a return. In addition to facilitating migration through various means, these same networks may also encourage migration and help to sustain migration under conditions that are not ideal for migrants’ subjective wellbeing. For instance, due to abrupt changes in mi-
grants’ household situation in the place of origin or changing structural conditions in the migration destination country, a return may be the best alternative for the migrant household’s subjective well-being even if all the initial goals of migration are not met.

Overall, this paper shows how migrants’ social networks are more focused on migration outcomes in terms of objective well-being, while migrants themselves, based on their assessment of subjective well-being, may prefer to return even when they have not achieved all the objectives of migration. Consequently, these networks of family members and friends may function as negative social capital instead of social capital for individual migrants due to their unrealistic expectations of ‘successful’ migration outcomes. This paper also emphasises the understanding of transnational labour migration as a dynamic process that can include elements of both ‘success’ and ‘failure’.

Paper III: Migration-related land use dynamics in increasingly hybrid peri-urban space: insights from two agricultural communities in Bolivia

By using a variety of qualitative research techniques such as semi-structured interviews, observations, participatory techniques, and visual land use analysis, this paper investigates the outcomes of household engagement in transnational migration in López Rancho and Molino Blanco, two urbanising agricultural communities outside the city of Sacaba in Bolivia. Migration-induced labour loss is often linked to the disintensification of agriculture whereas remittances can compensate for lost labour, for instance, through investment in commercialised or more extensive agricultural production. However, the previous studies have found mixed and sometimes contradicting results on the impacts of transnational labour migration on agricultural land use and farming practices in out-migration communities, and this paper contributes to the discussion by providing an example of migration-induced land use dynamics in a peri-urban space.

In line with the previous research, this study finds weak and mixed impacts of transnational labour migration on agriculture in the studied peri-urban communities. There are a very few examples of migration-induced agricultural intensification present in the communities, which have been achieved through monetary remit-
stances in combination with agronomic know-how. However, in general, major investments in agricultural intensification are not attractive because there are other potential opportunities for investment given the communities’ proximity to the major cities. Even so, this paper argues that the occasional use of monetary remittances in agricultural inputs function to counteract urbanisation, to maintain the food security of agricultural migrant households, and to preserve landesque-capital irrigation landscapes. Therefore, as the agricultural production is mainly maintained as a secondary livelihood activity, this paper concludes that transnational labour migration does not necessarily contribute to an accelerating urbanisation process in peri-urban out-migration communities.
6. Concluding discussion

This thesis shows that transnational labour migration with the point of departure in the agricultural valley region of Cochabamba is to a high degree practised by low-income households to diversify their household income sources and to achieve a better living standard in their place of origin. The findings of this thesis confirm the previous understanding of Cochabamban labour migration as characterised by temporary and circular movements and mostly planned to end in a return. These transnational migration flows have undoubtedly contributed to local development in Cochabamba, for instance, through monetary remittances invested in education, housing, and occasional inputs into agriculture. However, this thesis also sheds light on the difficulties and challenges experienced by the Cochabamban migrants and their household members, which have been less discussed in the previous literature.

In conclusion, this thesis highlights the importance of considering and assessing migrant households' and migrants' various capabilities and assets according to the livelihoods framework when studying the consequences of transnational labour migration in socioeconomically marginal settings. Furthermore, this thesis reveals that individual migrants' agency may be limited when migration becomes an integral part of household livelihood strategies, which may hamper migrants' subjective wellbeing as their household members are more focused on the economic returns of migration. Ultimately, this thesis emphasises how transnational labour migration and remittances function to maintain agricultural landesque-capital landscapes in peri-urbanising space near growing cities.

In this concluding chapter, the empirical and conceptual contribution of this thesis is discussed. In section 6.1, I emphasise the role of migration as an integral part of low-income migrant households. In section 6.2, I discuss how migrant households' expectations of 'successful' migration outcomes may limit individual migrants' agency and subjective wellbeing. In section 6.3, I relate transnational labour migration and its outcomes to the concepts of landesque capital and landscape.
6.1 Migration as an integral part of household livelihoods

In several instances, this thesis exemplifies how transnational labour migration has become an integrated part of low-income households’ livelihoods when individual migration decisions are driven by extended family networks. As in many other developing country contexts (de Haan, 1999), it is not generally the poorest of the poor migrating internationally in the studied Bolivian context. In most cases, the Cochabamban migration cannot be considered an escape from unstable or harsh conditions that threaten livelihoods in the sense that staying would be equal to starvation (cf. Bartram, 2015). Quite the contrary: this thesis reveals several ways in which Cochabamban migrants often migrate over a temporary time period as a livelihood strategy to accumulate financial resources to be invested in education, house construction, and other income-generating activities. However, a large share of remittances is also spent on basic necessities. In some cases, migrants prefer to return to Bolivia instead of staying abroad and experiencing living and working conditions that hamper their or their household members’ objective or subjective wellbeing. These findings can also be explained by the recent economic stability and improved economic conditions experienced in the country.

It is common for Cochabamban agricultural households to have livelihoods that do not only rely on their rural or peri-urban place of origin but are based on several locations both in Bolivia and abroad, sometimes referred to as multi-local (de Haan and Zoomers, 2003) or multi-location livelihood strategies (Dick and Schmidt-Kallert, 2011). In fact, some households may have members working in several rural and urban places within the country in addition to multiple international destination countries. Altogether, these findings help to explain the observation that low-skilled Cochabamban migrants – often with agricultural backgrounds – remit more than migrants originating from wealthier household conditions. Migrated members of these households most likely feel a greater responsibility to remit as their migration is planned from the beginning as a risk-reducing diversification strategy, providing additional security in a moment of lost harvests, unemployment, and other unexpected events of income loss (see also Massey et al., 1993; Ellis, 2000).

Nevertheless, I emphasise that not all low-income migrant households in this study receive remittances.
The results of this thesis highlight the role of migrant households’ various capabilities and assets, both economic and non-economic ones, when analysing migration outcomes in the Cochabamban context of labour migration. According to the livelihoods framework, these assets can be divided into human capital (knowledge, health), social capital (networks, membership), natural capital (land, biodiversity), physical capital (infrastructure, housing), and financial capital (savings, remittances) (Potter et al., 2008). First, I show that remittances are essential to enhance the financial, physical, and human capital of poor households through investments in house construction, savings, education and health, and other future-oriented activities. Second, when assessing the ‘successfulness’ of short-term labour migration that leads to a migrant’s own desire to return, migration as a learning experience may add to an individual migrant’s human capital even if the migration does not result in increased financial capital. This increase in human capital is an important asset for an individual migrant although the migrant’s household members may consider the migration to be a ‘failure’ because of the loss of time and financial capital. In fact, as these returned migrants do not feel an urge to re-migrate (cf. O’Connell Davidson, 2013) due to their gained satisfaction in their life in Bolivia, they may avoid re-risking their subjective wellbeing in exploitative working conditions abroad and during potentially dangerous migrant journeys. Third, in addition to migrants’ access to financial capital, their access to social capital in terms of supportive family networks in the place of origin and in the migration destination may be crucial to a migrant’s ability to cope with the experienced challenging conditions of migration. Fourth, while the concept of negative social capital has mainly referred to network actors in a migration destination such as non-hometown intermediaries and smugglers (see Krissman, 2005), I find that migrants’ social networks of family members and friends can be understood as negative social capital in some instances because of their expectations of a ‘successful’ migration, which may harm migrants’ subjective wellbeing.

In the context of migration-induced agricultural change, the role of different assets is shown in two ways. First, to manage to intensify farming by having access to monetary remittances, it is important to also have access to human capital in terms of skill and knowledge. As migrants of agricultural households in this study do not generally have agricultural employment abroad, they mostly do not transfer social remittances in the form of new farming skills (cf. Zimmerer, 2011). However, agricultural know-how as human capital could also
be achieved through education or specific training directed towards migrant households with access to remittances. Second, I find that, unlike the results reported by the previous studies (Aguilar-Støen et al., 2016; Taylor et al., 2016), migrant households do not seem to invest more monetary remittances in agricultural intensification in a community that is more favourable for agricultural development compared to a community that has less favourable conditions. Thus, due to these communities’ peri-urban locations, the existence of abundant irrigation water resources as natural capital and good irrigation infrastructure as physical capital are not experienced as crucial factors to facilitate migration-induced agricultural intensification.

In this section, I explained how transnational labour migration has become a central part of Cochabamban low-income households’ lives and livelihoods in the 2000s. This change has two major consequences that I have further examined in this thesis. First, the households’ concentration on the ‘successful’ implications of migration in economic terms may hamper individual migrants’ subjective wellbeing and limit their agency. Second, agricultural migrant households’ occasional investments of monetary remittances in everyday landscape modification function to maintain landesque-capital irrigation landscapes.

6.2 Voluntary migration with limited agency

As discussed in section 6.1, the Cochabamban labour migration examined in this thesis is to be understood as an integral part of agricultural households’ livelihoods (see also de Haan, 1999). For instance, an individual with several siblings could feel responsible to migrate for the sake of the household’s objective wellbeing in the place of origin, being forced to drop his or her own plans regarding employment, studies, and the formation of a conjugal family. I argue that this understanding of temporal migration as an unquestionable part of livelihood planning at the household level may limit individual migrants’ agency. Thus, the results of this thesis shed light on the factors that are embedded in the label ‘social milieu’, which is presented as an explanation to complement the individual-agency perspective (Van Hear et al., 2018: 929).

Although the previous literature generally understands family networks as supportive and positive for migrants, my findings echo the work of Garip and Asad (2016) on the normative influence of
social ties. Consequently, this thesis shows how migrants’ social networks may enhance and exaggerate the impacts of migration for migrants’ objective wellbeing when persuading them to migrate, even in instances when these network actors themselves have returned because of difficulties finding decent employment as an undocumented migrant. Due to this dual character of family networks, which function to both facilitate and persuade the migration of household members, individual migrants are likely to feel a responsibility to contribute by remitting. As a consequence, they are more apt to tolerating hazardous working and living conditions abroad instead of returning. Furthermore, because of these networks’ expectations of ‘successful’ migration outcomes in economic terms, they may burden individual migrants who prefer to return before achieving the income-generating goals of migration. In other words, individual migrants’ subjective wellbeing may be hampered due to their household members’ focus on the economic returns of migration. Overall, this thesis shows that migrants’ social networks of family members and friends mostly consider migration to be a way to achieve objective wellbeing, whereas for individual migrants, other outcomes of migration based on the assessment of their own subjective wellbeing may be equally important.

While migration as it is explored in this thesis is commonly understood as voluntary labour migration, I argue that it contains aspects that lean towards an understanding of the migration act as partly voluntary and partly involuntary. In recent academic discussion, the scope of migration labelled as involuntary has been extended to include, for instance, migration due to environmental reasons (Fussell, 2012) and extreme poverty (Bartram, 2015). Nevertheless, less attention has been paid to migration that is voluntarily according to the established definitions but when a migrant’s free agency is limited or directed due to pressure from supposedly well-intentioned family networks. While the Cochabamban labour migrants clearly cannot be explicitly identified as involuntary migrants according to the existing definitions, this thesis suggests that their common labelling as voluntary migrants exposes them to suspicious working and living conditions abroad as the labelling of migrants affects their rights in their destination countries. Because the migrants studied here generally enter their overseas destination countries as irregular migrants, their family situation may also become unsustainable due to the deportation of conjugal family members. Moreover, they are not allowed access to language or civic-orientation courses intended for regular migrants and migrants who
are granted asylum. Altogether, these results emphasise the importance of acknowledging how social networks may limit individual migrants’ agency in instances of transnational labour migration that is an integral part of low-income households’ livelihoods, which further affects whether migration can be considered entirely voluntary.

6.3 Does migration result in remittance landscapes?

While this thesis only shows weak migration-induced agricultural changes in the studied peri-urbanising communities, it reveals that monetary remittances function to maintain farming for subsistence and as a secondary livelihood activity in agricultural households as also shown in earlier studies. Hence, I argue that economic remittances contribute to the maintenance of agricultural irrigation landscapes and their irrigation infrastructure and cultivable soils even though remittances are only rarely invested in major agricultural intensification and commercialisation. Consequently, although remittances are not generally invested in landesque capital in a systematic manner (see also Jokisch, 2002), they function to preserve these landesque-capital landscapes through occasional investments in everyday landscape modification, including the purchase of pesticides, fertilisers, irrigation water, and agricultural labour services. Due to this landscape maintenance, migration has not yet resulted in the degradation of the agricultural infrastructure (cf. Fisher and Feinman, 2005). However, due to the process of peri-urbanisation and other potential factors such as households’ increasing involvement in transnational migration and changing climatic conditions, in the future, it may be more difficult to maintain agricultural production and the landesque-capital landscape infrastructure.

Whereas the concept of landscape has only rarely been used to examine migration-related changes in agricultural land and production in the previous studies, it has been applied by some scholars to describe the migration-induced changes of rural landscapes. While this thesis does not show a complete landscape change due to transnational migration in the studied agricultural environment (cf. McKay, 2005; Yarnall and Price, 2010), the investment of remittances in the construction of large Western-style houses is beginning to transform the visual appearance of the communities. While this change is less prominent compared to what has been observed in
earlier investigations in Valle Alto, examination of the visual landscape identifies these houses as expressions of the ongoing process of out-migration. Hence, they can be interpreted as visual symbols that reveal the landscape’s cultural meaning (Duncan and Duncan, 1988). The new houses are not only constructed by means of monetary remittances, but their architecture is inspired by social remittances, referring to the skills and knowledge brought to the place of origin by migrants. Through monetary and social remittances, this local landscape change is thus strongly related to the transnational processes of migration beyond the local as suggested in the earlier literature.

The finding concerning the limited investments of remittances in agricultural intensification due to the peri-urban context can be related to theories of hybrid and changing land use dynamics in peri-urbanising space. As my investigation shows, the process of peri-urbanisation does not need to result in the abandonment of agricultural activities as farming is maintained as a low-risk livelihood strategy along with agricultural households’ increasing involvement in other livelihood strategies such as non-farm and off-farm employment. ‘Accumulating evidence suggest that the tradition of land use in agriculture, the importance of self-provisioning, and the food demands of a rising middle class can potentially overcome pressures to abandon production’ (Lerner and Eakin, 2011: 312). Nevertheless, due to these sites’ proximity to the urban space, members of the agricultural households are not as dependent on natural capital and on agriculture as their main livelihood as households located in more rural space. Consequently, the peri-urban households have access to ‘financial, physical, human and perhaps also social capital of the nearby urban environment’ (Wiggins and Proctor, 2001: 428), which means that they have more livelihood opportunities in comparison to their rural counterparts, for instance, through urban non-farm employment. Whereas peri-urban agricultural households do not only have wider investment opportunities of remittances than rural households, they may also refrain from major agricultural investments due to the changing character of peri-urban sites along with growing cities. Thus, there may be other potential future uses for peri-urbanising agricultural land because of the rising land value near growing cities, and, as a consequence, agricultural households may avoid agricultural intensification in such a rapidly changing environment.
Svensk sammanfattning


Denna avhandling belyser mångfasetterade konsekvenser av transnationell arbetsmigration för individer och deras hushållsmedlemmar i Cochabamba i Bolivia. Genom att använda multipla metoder och livelihoods-perspektivet analyseras olika erfarenheter av migration med fokus på objektivt välbefinnande, subjektivt välbefinnande, och ändrade tekniker av jordbruksproduktion. I föreliggande arbete förstår migranterna sina hushålls inkomstkällor och medan transnationella migranter bor och arbetar i sina destinationsländer upprätthåller de nära kontakt med sina ursprungsplatser. Transnationell arbetsmigration drivs av ett samspel mellan migranter individuella strävan och omgivande sociala strukturer som delvis förmedlas genom nätverk baserade på sociala relationer. Dessa migrationsnätverk påverkar val av migrationsdestination, minskar kostnader och risker, och kan bidra till bättre ekonomiskt utfall av migration-
en. Även om många migrationsteorier antar att frivilliga arbetskraftsmigranter fritt kan bestämma över sin migration, visar flera studier att migranter makt att fatta egna beslut kan begränsas av faktorer såsom genusrelationer, socialt tryck eller skuldsättning.

Begreppet *livelihood* innehåller låginkomsthushållens praktiker för överlevnad, som kan vara ekonomiskt eller icke-ekonomiskt inriktade. De kan delas upp i humankapital, socialt kapital, naturkapital, fysiskt kapital och finansiellt kapital. Jordbrukarhushållens olika sätt att försörja sig genom migration och andra icke traditionella ekonomiska aktiviteter baserar sig på socialt tryck och multilokala försörjningssätt som en viktig riskreducerande strategi. Även om urbanisering och den av migration orsakade bristen på arbetskraft kan hota jordbruksproduktionen, upprätthålls ofta jordbrukandet som en kulturell försörjningsverksamhet vid sidan av andra inkomstkällor. I andra sammanhang har konceptet remitteringslandskap använts för att beskriva jordbruksproduktionssystem som har blivit intensifierade och kommersialiserade med hjälp av remitteringar. Landskapskonceptet tillämpas därmed för att förstå lokalas lanskapsförändringar som är kopplade till pågående transnationella sociala processer bortom det lokala. Termen *landesque* kapital avser långsiktiga investeringar i mark såsom skapande av bevattningssystem, vilka bidrar till framtida vidmakthållande jordbruksproduktion genom att minska behovet av arbetskraft och andra förbättrande insatser. Landskap av *landesque* kapital kräver kontinuerligt underhåll, demografska förändringar kan dock resultera i förfall av sådan jordbruksinfrastruktur.

Artikel I undersöker internationella migranter remitteringsbeteenden genom en regressionsanalys av enkätdata som innehåller variabler på hushållsnivå från ursprungplatsen och variabler om migranterna på individuell nivå i deras migrationsländer. Studiens resultat tyder på att de hushåll som tar emot mer remitteringar investerar dem i stor utsträckning i framåtriktade ändamål i stället för daglig konsumtion. Resultaten visar också att migranter med icke-kvalificerade yrken utomlands och migranter som härstammar från hushåll med sämre ekonomi remitterar mer än andra migranter. Denna artikel visar betydelsen av monetära remitteringar som ett medel att öka finansiellt kapital, fysiskt kapital och humankapital i låginkomsthushåll och att främja lokal utveckling och objektivt välbefinnande i utkanten av staden Cochabamba.

Artikel II utforskar etnografiska berättelser om sociala nätverks betydelse och utmanande migrationsförhållanden. Studien visar hur familjenätverk kan fungera som negativt socialt kapital för enskilda migranter. Undersökningsresultaten visar att kortssiktig migration kan öka den enskilda migrantens tillfredsställelse med sitt liv på ursprungsplassen även om migrantens hushållsmedlemmar betraktar migration som ett "misslyckande". Resultaten belyser vidare den duala karaktären av sociala nätverk vid långvarig migration, med eller utan återvändande. Dessa nätverk kan uppmuntra till migration och bidra till att upprätthålla migrantlivet i förhållanden som inte är idealiska för migrantens subjektiva välbefinnande. I dessa fall kan sociala nätverk av familjemedlemmar och vänner snarare fungera som negativt socialt kapital, än socialt kapital, för enskilda migranter. Denna artikel betonar migration som en dynamisk process som innehåller inslag av både "framgång" och "misslyckande". Individers reflexioner kring migranterfarenheterna bidrar till subjektivt välbefinnande och motverkar orealistiska förväntningar på migration.

Artikel III undersöker påverkan av transnationell arbetsmigration på jordbruks in två urbaniserande samhällen genom att tillämpa flera kvalitativa metoder. Studien visar svaga migrationsorsakade förändringar i jordbruk och drar slutsatsen att transnationell migration inte nödvändigtvis påskyndar en pågående urbaniseringsprocess. Vidare visar den att remitteringar används för att upprätthålla jordbruksförsörjning och som en sekundär aktivitet. Större investeringar i intensifiering av jordbruk är inte attraktiva på grund av samhällenas närhet till stora städer. Denna artikel framhäver behovet av en reflexiv begreppsanvändning i studier av migrationsorsakade jordbruksförändringar i stadsnära jordbrukslandskap.
På flera sätt exemplifierar denna avhandling hur transnationell arbetskraftsmigration har blivit en integrerad del av låginkomsthushållens försörjning. Det är dessutom vanligt att jordbruksfamiljer i Cochabamba har försörjning som inte enbart bygger på rural eller peri-urban ursprungsplats utan på flera olika platser i Bolivia och utomlands, vilket kallas för multilokal försörjningsstrategi. Denna avhandling belyser även vikten av att överväga och bedöma migransfamiljers och migransers olika ekonomiska och icke-ekonomiska tillgångar i studier av konsekvenser av transnationell arbetskraftsmigration i socioekonomiskt marginella miljöer. Vidare synliggörs att enskilda migransers inverkan på sina migrationsbeslut kan begränsas när migration blir en integrerad del av hushålls försörjningsstrategier. Detta kan påverka migransers subjektiva välbefinnande då deras hushållsmedlemmar primärt är fokuserade på migrationens ekonomiska utfall. Migranter blir därmed mer benägna att stå ut med suspenta och farliga arbets- och levnadsvillkor utomlands i stället för att återvända, vilket i sin tur påverkar i fall denna typ av arbetskraftsmigration kan betraktas som helt frivillig migration. I slutändan betonar denna avhandling hur transnationell arbetskraftsmigration och remitteringar fungerar för att upprätthålla jordbrukslandskap med bevattningsinfrastruktur, även kallad *landesque* kapital, på peri-urbaniserande platser i närheten av växande städer. Dock är större investeringar i jordbrukslandskap på grund av det stigande värdet av peri-urban mark och då peri-urbana hushåll har betydligt större försörjningsmöjligheter jämfört med rurala hushåll som är mer beroende av naturkapital.
Resumen en español

En Bolivia hay una fuerte tradición campesina, a pesar de los continuos procesos de la urbanización rápida. La rentabilidad de la agricultura ha disminuido, y las dificultades de encontrar suministro dentro del país hacen que muchos bolivianos busquen oportunidades de empleo en el extranjero, como una forma de diversificar sus fuentes de ingresos del hogar. Desde principios de los años 2000, la migración internacional desde Bolivia ha aumentado considerablemente. Estos nuevos flujos migratorios están conformados principalmente de migrantes poco cualificados y crecientemente de mujeres. En su mayor parte, los migrantes bolivianos mantienen sus vínculos familiares a través de las fronteras; como migrantes transnacionales se mueven de manera circular, envían remesas monetarias y tienen planes de retornar.

Esta tesis doctoral explora las consecuencias multifacéticas de la migración laboral transnacional para los individuos y sus miembros del hogar en las comunidades de origen en Cochabamba, Bolivia. Utilizando diversos métodos y el marco teórico de medios de vida, se analizan diferentes experiencias de la migración, en términos del bienestar objetivo, el bienestar subjetivo y los cambios en las técnicas de producción agrícola. Estas cuestiones son estudiadas en tres artículos. En esta tesis, el bienestar objetivo se entiende como el aumento de la calidad de vida de los hogares migrantes, basado en medidas objetivas de remesas monetarias. El término bienestar subjetivo se usa en relación con las narrativas de los migrantes y de sus miembros de hogares sobre los desafíos experimentados de la migración que afectan su calidad de vida.

La revisión teórica está dividida temáticamente en la migración transnacional, los medios de vida rurales y periurbanos y los cambios en el uso de la tierra agrícola. La migración laboral transnacional está generalmente entendida como una estrategia de medios de vida a nivel de hogar para diversificar las fuentes de ingresos. Las migrantes transnacionales viven y trabajan en sus países de destino, pero mantienen contacto cercano con sus lugares de origen. La migración laboral transnacional es impulsada por una interacción entre las
aspiraciones individuales de los migrantes y las estructuras sociales más amplias que son parcialmente mediadas a través de redes basadas en relaciones sociales. Estas redes de migración afectan la elección del destino de la migración, reducen los costos y riesgos de la migración y pueden contribuir a mejores resultados económicos de la migración. Muchas teorías de la migración asumen que los migrantes laborales voluntarios pueden decidir libremente sobre su migración. Sin embargo, literatura reciente muestra que el poder y la agencia de los migrantes para tomar sus propias decisiones puede estar limitado, por ejemplo, en términos de género o debido al endeudamiento al que recurren con el fin de que superar obstáculos estructurales.

El concepto medio de vida se refiere a diversas formas económicas y no económicas de supervivencia de hogares de bajos ingresos, las cuales se pueden dividir en capital humano, capital social, capital natural, capital físico y capital financiero. La diversificación de los medios de vida de los hogares agrícolas a través de la migración y otras actividades no tradicionales está cada vez más basada en múltiples localidades, y estos medios de vida multilocales funcionan como una estrategia importante para la reducción del riesgo. Si bien los procesos de la urbanización y la escasez de mano de obra inducida por la migración pueden amenazar la producción agrícola, la agricultura a menudo se mantiene como una actividad cultural de subsistencia junto con otras fuentes de ingresos no agrícolas. En otros casos, el concepto de paisaje de las remesas se ha aplicado para describir sistemas de la producción agrícola que se han intensificado y comercializado mediante las remesas. De este modo, el enfoque de paisaje se utiliza para comprender los cambios locales del paisaje que están vinculados a los procesos sociales transnacionales en curso más allá de lo local. El concepto de capital landesque se refiere a las inversiones a largo plazo en tierra tales como la creación de sistemas de riego, las cuales contribuyen al mantenimiento futuro de la producción agrícola al reducir la necesidad de mano de obra y otros insumos de mejora. Sin embargo, debido a que los paisajes de capital landesque requieren mantenimiento continuo, cambios demográficos pueden resultar en la degradación de dicha infraestructura agrícola.

Esta tesis se basa en varias técnicas cualitativas y cuantitativas de investigación que se complementan una a otra y que juntas ayudan a comprender los vínculos complejos entre la migración transnacional y sus diversas consecuencias. El estudio empírico se realizó en la ciudad de Cochabamba y sus comunidades agrícolas cercanas. Estas
últimas incluyen a las comunidades periurbanas de Pucarita Chica e Itocta al sur de Cochabamba, las comunidades periurbanas López Rancho, Molino Blanco, Lava Lava Alta y Aguada al este de la ciudad de Sacaba, y las comunidades rurales Aranjuez, Arbieto, Chullpas y Waóacawa en Valle Alto. Como método principal se utilizaron entrevistas semiestructuradas a hogares agrícolas y a varios informantes claves. Además, se realizaron observaciones durante las caminatas de campo y se emplearon técnicas participativas en forma de grupos focales. Las entrevistas, las observaciones y los grupos focales se llevaron a cabo durante tres trabajos de campo prolongados durante el periodo del 2013 al 2016. Los métodos adicionales incluyen un análisis de regresión logística de un conjunto de datos de la encuesta recopilado en el 2009 y un análisis visual de las fotografías aéreas históricas y de las imágenes satelitales modernas de alta resolución.

*Artículo I* investiga determinantes de las remesas de los migrantes internacionales, a través de un análisis de regresión de un conjunto de datos de la encuesta, que incluye variables a nivel de hogar del lugar de origen de los migrantes, así como variables a nivel individual en sus países de destino. Los resultados del estudio indican que, en gran medida, los hogares que reciben más remesas las invierten en propósitos orientados al futuro, en lugar de gastarlas en el consumo cotidiano. Los hallazgos también muestran que los migrantes con ocupaciones no calificadas en el extranjero y los migrantes que provienen de hogares de nivel socioeconómico bajo remiten más que otros migrantes. Este artículo destaca la importancia de las remesas monetarias como un medio para fortalecer el capital financiero, físico y humano en los hogares de bajos ingresos y para promover el desarrollo local y el bienestar objetivo en las afueras de la ciudad de Cochabamba.

*Artículo II* explora relatos etnográficos sobre condiciones desafiantes de la migración, a fin de que ampliar la comprensión de las redes sociales. Los resultados muestran que un retorno a corto plazo puede aumentar la satisfacción con la vida del migrante que retorna a su lugar de origen, a pesar de que los miembros del hogar del migrante consideren que la migración fue un ‘fracaso’. Además, los hallazgos revelan el carácter dual de las redes sociales en casos de la migración a largo plazo, con o sin retorno, ya que estas redes pueden incentivar la migración y ayudar a sostener la migración en condiciones que no son ideales para el bienestar subjetivo de los migrantes. En tales casos, las redes sociales de familiares y amigos pueden funcionar como capital social negativo, en vez de capital
social para los migrantes individuales. Este artículo enfatiza la necesidad de reconocer la migración como un proceso dinámico con elementos tanto de ‘éxito’ como de ‘fracaso’, lo cual puede aumentar el bienestar subjetivo y contrarrestar las expectativas poco realistas de los resultados de la migración.

Artículo III examina el impacto de la migración laboral transnacional en la agricultura en dos comunidades en proceso de urbanización en Cochabamba aplicando varios métodos cualitativos. Este estudio muestra cambios débiles en la agricultura inducidos por la migración y concluye que la migración transnacional no necesariamente acelera el proceso creciente de urbanización. Muestra también que las remesas permiten mantener la agricultura como actividad secundaria para la subsistencia. Sin embargo, grandes inversiones en la intensificación agrícola no son atractivas, debido a la proximidad de las comunidades a las ciudades principales. Este artículo destaca la necesidad de una conceptualización matizada al momento de estudiar el cambio agrícola impulsado por la migración en espacios híbridos periurbanos.

De varias maneras, esta tesis ejemplifica cómo la migración laboral transnacional se ha convertido en una parte integral de los medios de vida de los hogares de bajos ingresos, ya que las decisiones individuales de la migración son impulsadas por las redes de los miembros de la familia extendida. Es también común para los hogares agrícolas cochabambinos tener medios de vida que no sólo dependen de su lugar de origen rural o periurbano, sino que se basan en varias localizaciones tanto en Bolivia como en el extranjero, lo que se denomina estrategias multi-locales de medios de vida. Además, esta tesis destaca la importancia de considerar y evaluar las diversas capacidades y bienes económicos y no económicos de los migrantes y sus hogares de origen, según el marco de medios de vida, al estudiar las consecuencias de la migración laboral transnacional en entornos socioeconómicamente marginales.

Esta tesis revela que el impacto de los migrantes individuales en sus decisiones migratorias puede llegar a ser limitado cuando la migración se convierte en una parte integrada de las estrategias de subsistencia de los hogares, lo que puede obstaculizar el bienestar subjetivo de los migrantes, ya que los miembros de su hogar están más enfocados en los resultados económicos de la migración. Por lo tanto, los migrantes se vuelven más propensos a tolerar condiciones de vida y de trabajo peligrosas en el extranjero, en lugar de retornar, lo que afecta si este tipo de migración se puede considerar
completamente voluntaria. Finalmente, esta tesis enfatiza cómo la migración laboral transnacional y las remesas funcionan para mantener los paisajes agrícolas de infraestructura de riego, también llamado capital landesque, en espacios periurbanizados cerca de las ciudades en crecimiento. Sin embargo, grandes inversiones en agricultura son raramente atractivas, debido al aumento del valor de las tierras periurbanas y a que los hogares periurbanos tienen posibilidades de sustento más amplias, en comparación con los hogares rurales que dependen más del capital natural.
References


## Appendix 1: details of the informants

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