The following individuals certify that they have read, and recommend to the Faculty of
Graduate and Postdoctoral Studies for acceptance, a thesis entitled:

(Under)Mining State Authority:

submitted by Zaraí Toledo Orozco in partial fulfillment of the
requirements for

the degree of Doctor of Philosophy

in Political Science

Examining Committee:

Maxwell Cameron, professor, Political Science Department, UBC
Supervisor

Peter Dauvergne, professor, Political Science Department, UBC
Supervisory Committee Member

Marcello Veiga, professor, Norman B. Keevil Mining Institute, UBC
Supervisory Committee Member

Lisa Sundstrom, Political Science Department, UBC
University Examiner

Shaylih Muehlmann, Anthropology, UBC
University Examiner
Abstract

Scholarship on the 2000s commodity boom and its effects on state development in Latin America seldom accounts for the role of the extractivism of the poor, whose capacity to avoid regulation and shape policy outcomes poses a major challenge to state authority. This dissertation is a study of the conditions and mechanisms through which informal gold miners undermine state authority and its monopoly over key commodities. It builds on ten months of fieldwork in the largest gold mining regions in the Andes – rural La Paz in Bolivia and Madre de Dios in Peru – and in a case of more recent expansion – Tambogrande, Peru – and includes ethnographic work, 156 interviews and a survey of 100 people.

This dissertation is composed of four papers. The first introduces the concept of organizational challengers – a state competitor whose power lies in the development of informal governance systems with stronger inclusionary capacity than the state – and compares state responses to informal mining in Bolivia and Peru. The second paper puts forward a comparative study of perceptions of mining at different scales in Tambogrande, where informal mining has recently proliferated unopposed while large-scale mining was resisted. The study reveals that the compatibility of informal mining with the local social order explains the difference in attitudes of communities towards different scales of mining. The third paper explains the functioning of informal gold mining governance systems in Santa Rosa, Bolivia and Huepetuhe, Peru. It shows how key practices from the Andean peasant tradition have crystallized into resource governance institutions whose unintended effects – such as the provision of basic infrastructure and labor opportunities – give these local systems a competitive advantage over the state.
The fourth paper explains why despite the implementation of two different state strategies – an accommodating one in Bolivia and a coercive one in Peru – informal miners have nonetheless gained political influence. I find that miners take advantage of the fracture between the central state and its peripheral branches to form pressure groups in coalition with local authorities. These alliances function first as shields against regulation and then as springboards to push for policy change.
Lay Summary

This dissertation investigates the empowerment of informal gold miners during the 2000s commodity boom and its implications for state development in Bolivia and Peru. Informal gold mining – though operating with limited financial resources – provides labor opportunities and promotes upward social mobility in state-forsaken areas. Miners are thus able to mobilize support, avoid regulation and influence national resource policy. In a collection of four papers, this study critically examines the sources of local support of the activity, the functioning of their informal governance systems, patterns of miners’ bottom-up political contention, and state responses. My findings show that the state’s limited social control allows miners to build inclusive networks in marginalized areas and that they take advantage of the state’s fragmentation to develop alliances with local authorities and gain leverage to negotiate with the central state. This study contributes to literature on informality, state development, resource governance and has important policy implications for mining regulation.
Preface

This dissertation comprises original work. The fieldwork was approved by the UBC Behavioral Research Ethics Board (application #H17-02248 for Papers 1, 3 and 4 and application # H15-01123 for Paper 2).

A version of Paper 2 was co-authored with Dr. Marcello Veiga, a professor from the Norman B. Keevil Mining Institute at UBC. I was the person conducting all the fieldwork and who wrote most of the paper. Dr. Veiga contributed to write the discussion and the recommendations.

I presented an early draft of this paper at the Sustainable Industrial Processing Summit and Exhibition (SIPS) in October 2015 in Antalya, Turkey and a new version at the Latin American Studies Association (LASA) in May 2016 in New York, United States of America. A version of this work was published in the peer-reviewed academic journal *The Extractive Industries and Society*. The citation is:


A version of Paper 3 was presented at the Canadian Political Science Association (CPSA) in October of 2019 in Vancouver, Canada.

An early version of Paper 4 was presented at the Latin American Studies Association (LASA) in May of 2019 in Boston, United States of America.
# Table of Contents

Abstract........................................................................................................................................... iii
Lay Summary ........................................................................................................................................ v
Preface ................................................................................................................................................ vi
Table of Contents............................................................................................................................... vii
List of Tables....................................................................................................................................... xi
List of Figures...................................................................................................................................... xii
List of Abbreviations.......................................................................................................................... xiii
Glossary ................................................................................................................................................. xv
Acknowledgments ............................................................................................................................... xvii
Dedication............................................................................................................................................... xx

**Chapter 1: Introduction**...................................................................................................................... 1

1.1 The argument in brief ................................................................................................................... 4
1.2 The case of informal gold miners ............................................................................................. 7
1.3 State capacity in boom times, the extractivism of the poor and state responses ................. 10
    1.3.1 State challengers .................................................................................................................. 13
    1.3.2 The impact of the extractivism of the poor on state development .................................. 15
    1.3.3 State responses .................................................................................................................... 19
    1.3.4 Bottom-up change ................................................................................................................ 21
1.4 Recent approaches and concepts to the study of the extractivism of the poor ............... 23
    1.4.1 Approaches to the study of informal gold mining ............................................................. 23
    1.4.2 Resource regimes and extractive institutions .................................................................. 30
1.5 Case selection and methodology ............................................................................................... 37
1.6 Organization of the dissertation ................................................................................................. 48
### Chapter 2: PAPER 1. The Struggle for Social Control: The Andean State versus The Organizational Challengers

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Introduction</td>
<td>53</td>
</tr>
<tr>
<td>2.2 Organizational challengers</td>
<td>57</td>
</tr>
<tr>
<td>2.3 Organizational challengers and informal institutions</td>
<td>61</td>
</tr>
<tr>
<td>2.4 The Andean state and the problem of organizational capacity: national changes and local continuities</td>
<td>63</td>
</tr>
<tr>
<td>2.5 A brief history of the origins and expansion of the extractivism of the poor</td>
<td>68</td>
</tr>
<tr>
<td>2.6 The governance systems of small-scale and artisanal mining and their socioeconomic effects</td>
<td>72</td>
</tr>
<tr>
<td>2.6.1 Political influence</td>
<td>78</td>
</tr>
<tr>
<td>2.7 State strategies and outcomes</td>
<td>79</td>
</tr>
<tr>
<td>2.8 Conclusions</td>
<td>87</td>
</tr>
</tbody>
</table>

### Chapter 3: PAPER 2. Understanding Local Responses to Informal Gold Mining versus Large-Scale Mining. A Case Study from Tambogrande, Peru

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Introduction</td>
<td>91</td>
</tr>
<tr>
<td>3.2 The case of Tambogrande and the expansion of informal gold mining in Peru</td>
<td>94</td>
</tr>
<tr>
<td>3.3 Methods: Putting people at the center of analysis</td>
<td>98</td>
</tr>
<tr>
<td>3.4 Findings</td>
<td>101</td>
</tr>
<tr>
<td>3.4.1 Discarding conventional explanations</td>
<td>101</td>
</tr>
<tr>
<td>3.4.2 The preservation of the social order as a priority</td>
<td>105</td>
</tr>
<tr>
<td>3.4.3 The importance of personal ties: familiarity versus the impersonality of the market</td>
<td>110</td>
</tr>
<tr>
<td>3.5 Discussion and Recommendations</td>
<td>114</td>
</tr>
</tbody>
</table>
Chapter 4: PAPER 3. The Extractivism of the Poor: Gold Mining and the Functioning of Informal Resource Regimes in the Bolivian Highlands and the Peruvian Amazon

4.1 Introduction ............................................................................................................. 117
4.2 Informal resource regimes, extractive institutions and unintended effects ............. 124
4.3 The expansion of the extractivism of the poor ...................................................... 129
4.4 Gold mining governance in commodity boom times: changes and continuities ....... 132
  4.4.1 Gold mining actors ............................................................................................ 132
  4.4.2 Gold mining networks ...................................................................................... 135
  4.4.3 Old practices and new resource governance systems ...................................... 136
  4.4.4 Unintended effects ........................................................................................... 139
4.5 The functioning of informal gold regimes ............................................................. 142
  4.5.1 Land access and conflict resolution ................................................................ 142
  4.5.2 Provision of goods ......................................................................................... 147
  4.5.3 Employment opportunities ............................................................................ 151
  4.5.4 The preservation of traditions ........................................................................ 156
4.6 Conclusion ............................................................................................................... 158

Chapter 5: PAPER 4. With the State Against the State: Informal Gold Miners, State Fragmentation and Resource Governance in Bolivia and Peru ....................... 160

5.1 Introduction ............................................................................................................. 160
5.2 State-society relations in the periphery and the pushback against the central state .... 163
  5.2.1 Beyond the focus on the elite ......................................................................... 163
  5.2.2 State fragmentation: an opportunity for bottom-up change ......................... 166
  5.2.3 Forbearance and beyond: the formation of peripheral coalitions and their challenge to the central state .............................................................. 168
5.3 Methods .................................................................................................................. 172
5.4 Findings .................................................................................................................. 174
  5.4.1 The origins of informal miners’ pressure groups .......................................... 174
  5.4.2 Informal gold miners and changes in resource governance ......................... 178
5.4.2.1 Miners’ political activation and local authorities’ support ........................................178
5.4.2.2 Working from the inside .........................................................................................181
5.4.2.3 No more middlemen ..............................................................................................185
5.5 Conclusion ..................................................................................................................189

Chapter 6: Conclusions ....................................................................................................191

6.1 Future lines of inquiry .................................................................................................198
6.2 Policy implications .......................................................................................................200
  6.2.1 State’s development of contextual knowledge on informal gold mining .............201
  6.2.2 Collaborative work with mining associations to formulate consensual rules ......204
  6.2.3 Work with positive incentives .................................................................................205

Bibliography .....................................................................................................................208

Appendices ........................................................................................................................237
  Appendix A: Guide for the ethnographic work, Papers 1, 3 and 4 ............................237
  Appendix B: Guides for the interviews, Papers 1, 2, 3 and 4 ..................................240
  Appendix C: Guide for the ethnographic work, Paper 2 ...........................................251
  Appendix D: Survey, Paper 2 .......................................................................................253
List of Tables

Table 1 Summary of approaches from the last thirty years to the study of informal gold mining............................................................................................................................................................................................................................................................................................................. 25

Table 2 Summary of mining laws for cooperatives negotiated between miners and the state during the MAS administration in Bolivia (2006-2013) ........................................................................................................................................................................................................................................... 82

Table 3 Number of gold mining cooperative members in La Paz (Bolivia), organized by federations (2014-2016) .................................................................................................................................................................................................................................................. 176

Table 4 Yearly variation in the gold production of Madre de Dios (Peru) and in the regional GDP (2012-2017) ........................................................................................................................................................................................................................................................................................................... 177
# List of Figures

Table of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gold mining supply chain pyramid</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>Increase of small-scale and artisanal gold mining production in Bolivia and Peru in relation to international gold prices (2004-2016)</td>
<td>72</td>
</tr>
<tr>
<td>3</td>
<td>Interdictions and deforestation in Madre de Dios (Peru)</td>
<td>85</td>
</tr>
<tr>
<td>4</td>
<td>Map of informal gold mining deposits in Tambogrande and the Piura region</td>
<td>109</td>
</tr>
<tr>
<td>5</td>
<td>Map of gold mining deposits in Huepetuhe, Madre de Dios (Peru)</td>
<td>122</td>
</tr>
<tr>
<td>6</td>
<td>Map of gold mining deposits in Santa Rosa, La Paz (Bolivia)</td>
<td>123</td>
</tr>
<tr>
<td>7</td>
<td>Graffiti in Bolivia representing the multiple identities of the peasant: miner, campesino and indigenous</td>
<td>127</td>
</tr>
<tr>
<td>8</td>
<td>Redistributive circles around small-scale and artisanal gold mining</td>
<td>135</td>
</tr>
<tr>
<td>9</td>
<td>Photos of the mining camps and mining tailings in Huepetuhe, Madre de Dios (Peru)</td>
<td>147</td>
</tr>
<tr>
<td>10</td>
<td>Indigenous miners at the back and a modern panner in the front. Sculpture from Puerto Maldonado, Madre de Dios (Peru)</td>
<td>151</td>
</tr>
<tr>
<td>11</td>
<td>Photos of a mine and a mining camp ran by a mining gold cooperative in Santa Rosa, rural La Paz (Bolivia)</td>
<td>154</td>
</tr>
<tr>
<td>12</td>
<td>Sequential process of bottom-up policy change</td>
<td>171</td>
</tr>
<tr>
<td>13</td>
<td>Increase in the number of mining cooperatives in Bolivia (1997-2017)</td>
<td>175</td>
</tr>
<tr>
<td>14</td>
<td>Increase in the number of informal miners in Peru (1994-2016)</td>
<td>176</td>
</tr>
</tbody>
</table>
## List of Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGM</td>
<td>Small-Scale and Artisanal Gold Mining</td>
</tr>
<tr>
<td>AJAM</td>
<td>Jurisdictional Administrative Mining Authority (from Bolivia)</td>
</tr>
<tr>
<td>COMEREMIN</td>
<td>Integral Center for the Commercialization of Minerals for Cooperative Mines (from Bolivia)</td>
</tr>
<tr>
<td>COMIBOL</td>
<td>Mining Corporation of Bolivia</td>
</tr>
<tr>
<td>CONAMI</td>
<td>National Confederation of Small-Scale Producers and Artisanal Miners (from Peru)</td>
</tr>
<tr>
<td>CSTUCB</td>
<td>Unified Syndical Confederation of Rural Workers of Bolivia</td>
</tr>
<tr>
<td>FEDEMIN</td>
<td>Mining Federation from Madre de Dios (from Peru)</td>
</tr>
<tr>
<td>FENAMARPE</td>
<td>National Federation of Artisanal Miners (from Peru)</td>
</tr>
<tr>
<td>FENCOMIN</td>
<td>National Federation of Mining Cooperatives (from Bolivia)</td>
</tr>
<tr>
<td>FERRECO</td>
<td>Regional Federation of Gold Mining Cooperatives (from Bolivia)</td>
</tr>
<tr>
<td>FECOMAN</td>
<td>Regional Federation of Gold Mining Cooperatives from Northern La Paz (from Bolivia)</td>
</tr>
<tr>
<td>FOFIM</td>
<td>Fund for the Financing of Mining (from Bolivia)</td>
</tr>
<tr>
<td>FSTMB</td>
<td>Union Federation of Bolivian Mine Workers</td>
</tr>
<tr>
<td>GIATOC</td>
<td>The Global Initiative Against Transnational Organized Crime</td>
</tr>
<tr>
<td>GRP</td>
<td>Regional Government of Piura (from Peru)</td>
</tr>
<tr>
<td>INE</td>
<td>National Institute of Statistics (from Bolivia)</td>
</tr>
<tr>
<td>INEI</td>
<td>National Institute of Statistics and Informatic (from Peru)</td>
</tr>
<tr>
<td>INGEMMET</td>
<td>Mining and Metallurgic Institute (from Peru)</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>MAAP</td>
<td>Monitoring of the Andean Amazon Project</td>
</tr>
<tr>
<td>MAS</td>
<td>Movement towards Socialism (from Bolivia)</td>
</tr>
<tr>
<td>MINAM</td>
<td>Ministry of the Environment (from Peru)</td>
</tr>
<tr>
<td>MMAyA</td>
<td>Ministry of the Environment and Water (from Bolivia)</td>
</tr>
<tr>
<td>MINEM</td>
<td>Ministry of Energy and Mines (from Peru)</td>
</tr>
<tr>
<td>MNR</td>
<td>Revolutionary Nationalist Movement (from Bolivia)</td>
</tr>
<tr>
<td>MRE</td>
<td>Ministry of Foreign Affairs (from Bolivia)</td>
</tr>
<tr>
<td>OCMAL</td>
<td>Observatory of Mining Conflicts from Latin America</td>
</tr>
<tr>
<td>SENARECOM</td>
<td>National Service for Registering and Monitoring the</td>
</tr>
<tr>
<td></td>
<td>Commercialization of Minerals and Metals (from Bolivia)</td>
</tr>
<tr>
<td>SONAMIPE</td>
<td>National Society of Small-Scale Mining (from Peru)</td>
</tr>
<tr>
<td>SPDA</td>
<td>Peruvian National Society of Environmental Law</td>
</tr>
<tr>
<td>UDAPE</td>
<td>Unit of Analysis of Social and Economic Policies (from Bolivia)</td>
</tr>
</tbody>
</table>
Glossary

**Extractive institutions:** Practices and shared rules sanctioning the access, participation and administration of a natural resource. Informal extractive institutions are constituted by unwritten practices and rules that shape the expectations between actors, set priorities for its members, regularize management strategies around a resource and its benefits for an enclosed group. Together, extractive institutions regulate resource governance systems.

**Extractivism:** A type of extraction of natural resources in great volume or high intensity, which are mainly destined to be exported as raw material or with minimum processing (Gudynas 2013).

**Informal economy:** Productive activities, transactions, jobs and network that are neither protected nor regulated by the state (Chen 2012). Informal economies are different from formal economies in how they produce and exchange commodities. Unlike formal economies, informal economies do not necessarily have a clear labor and capital division, they tend to follow custom norms and they are not accountable to state law. Informal workers are often self-employed or wageworkers with no access to labor protection.

**Informal institutions:** A collection of unwritten rules and organized practices deeply embedded in structures of meaning and resources (March and Olsen 2006: 3). Informal institutions grant value and meaning to systems and regimes by establishing priorities, goals and shaping the preferences of the actors involved.

**Informal mining:** Mining and all the mining-related activities such as labor relations, processing and commerce that do not comply to state laws and that remain unregulated by
the state. In most of Latin America, informal mining commonly refers to small-scale and artisanal mining.

**Infrastructural power:** The ability of a state to exert control and to implement policy choices in its territory (Mann 1984).

**Large-scale mining:** Industrial mining operations, underground and open pit. In Latin America, large-scale mining operations are commonly led and operated by foreign companies.

**Organizational challenger:** Non-state actor challenging state’s social control with an alternative set of rules and practices.

**Popular economy:** Economies combining communitarian and cooperative practices with microentrepreneurial elements deriving from capitalist exchange.

**Resource governance:** Active production of governable sociopolitical and economic orders.

**Resource regime:** Territorial division, sociopolitical conditions and extractive institutions in place supporting specific interests and forms wealth accumulation associated with the exploitation of a resource over a long period of time in a given place (Marston and Perreault 2017).

**Small-scale and artisanal mining:** Mining and processing operations of gold and other minerals that heavily rely on rudimentary techniques and intensive labor force (Veiga 1997). Small-scale and artisanal mining include panning, underground work, waste rock digging and rustic processing activities.

**Social control:** The capacity of a state to enforce a system of rules over its territory.

**Subnational government:** Authorities and institutions below the central national state. Mainly led by departmental, regional and municipal officials such as governors and mayors that have been elected by popular vote.
Acknowledgments

I am thankful to my supervisor Dr. Maxwell Cameron who inspired me in the first place to join UBC. Thank you for all your guidance, your patience, for allowing me to write on something unconventional and, at the same time, for always providing me with the necessary support to complete my work.

The advice of the members of my committee, Dr. Peter Dauvergne and Dr. Marcello Veiga was fundamental for the completion of this work. Peter gave me detailed feedback, offered his support and always had a kind word to encouraged me to continue working. Marcello has been a great mentor. I have had the opportunity to travel and learn from miners in Colombia, Bolivia, Ecuador, Peru and Turkey and work with engineers and policy makers in the Andes thanks to him.

I would also like to thank the scholars and faculty members from UBC who have enriched my academic experience. Lisa Sundstrom, Richard Price and Arjun Chowdhury from the Political Science department and Philippe Le Billon from the Geography department offered me their guidance and provided me with opportunities to improve my work and teaching practice. Thanks to Josephine Calazan for always answering with a smile to my last-minute requests.

The fieldwork for this thesis would have been impossible without the help of many extraordinary researchers and practitioners who shared with me their insights on the country cases. In Bolivia, I had the affiliation with the Centro de Estudios Superiores Universitarios from the University of San Simón in Cochabamba and the direction of Professor René Mayorga, an incredible intellectual and a supportive advisor. Isamu Okada from the
University of Nagoya, Bernardo Peredo from the Embassy of Canada, Héctor Córdova from Fundación Jubileo, Pablo Poveda from the CEDLA and the Deputy Ministry of Cooperatives in Bolivia also helped me to further my knowledge on the miners. Linda Farthing, a superb journalist and a personal friend always enlighten me with her knowledge on Bolivia. I am thankful to the gold federations from La Paz and, in particular, to FENCOMAN for always welcoming me to their offices and sharing all their experiences.

In Peru, I had endless help. Thank you to Aldo Santos from the Deputy Ministry of Interculturality, Lupo Canterac from the Network of Activists form the San Lorenzo Valley, José Neira from Agro Sí, the ronderos from Locuto and Northern Piura, Olinda Orozco from Red Social, representatives from the Energy and Mining Ministry, the Regional Government of Piura, the Tambogrande City Council, the Regional Government of Madre de Dios, the Federation of Small-scale and Artisanal Miners from Madre de Dios, the National Federation of Small-scale and Artisanal Miners and the National Society of Small-Scale Mining. Above all, thank you to all the gold mining cooperatives and mining associations who allowed me to learn from them.

My gratitude to the scholars who believed in me when the thought of pursuing a doctoral degree seemed like an impossible aspiration. Gonzalo Portocarrero, Guillermo Rochabrún and Narda Henriquez from the Catholic University of Peru and Laura Macdonald, Gopika Solanki and Cristina Rojas from Carleton University. I am also thankful to my Quechua professor Fanny Ccoyllo whose lessons helped me to understand the Andes better.

My friends have been an unconditional source of laughter while living in the Great White North. Despite the physical distance, my best friends from Piura, Alice, Gaby, Jesús, Martín, Andy, Diego, Giuliana and Luis Miguel were always here in Vancouver in spirit, rooting for me. Three amazing friends and colleagues also gave me their support these years,
Dominique Rumeau, Katherine Dunn and Ruby Stocklin-Weinberg. Thank you for accompanying me on this journey.

I am thankful to Fabio who patiently read my work and whom I learn from every day. He has been an amazing companion during the long trips to the mines and, while I wrote the thesis, he has survived with me natural disasters, national strikes, coups and now a pandemic. Thank you, Lia and Renato for making me so happy.

I would have never dreamt about studying abroad and in another language if it was not for the encouragement of my family from the little port of Paita, Piura in the Northern Coast of Peru. My grandfather Librado, my uncles and aunts taught me at a very early stage to love our region Piura and to do my best to make it a better place. My grandmother Enriqueta and my mother Lucrecia have been great examples of resilience and courage. My mother did everything to help me access education and taught me that knowledge is worthless if it is not aligned with our ideals. Mamá, aunque imperfecto, todo lo que hago es por ti y para ti.

Finally, I wish to acknowledge the support from the University of British Columbia and the Department of Political Science which allowed me to undertake my doctoral studies, present my work in conferences and fund my dissertation research. I thank the Sutton MacGregor Doctoral Student Research Award for contributing to fund my work in Bolivia. Likewise, I am thankful to the Canadian International Resource and Development Institute for helping me funding part of my fieldwork in Peru.
Esta tesis está dedicada a todos los mineros de oro y comunidades en los Andes que en algún momento compartieron conmigo sus jornadas laborales. Deseo que, en alguna forma, este estudio sea una pequeña contribución para mejorar sus vidas.
Chapter 1: Introduction

‘Minero soy
A la mina voy
A la muerte voy
Minero soy
Humano soy’”

(I am a miner,
I go the mine,
I go to my death,
I am a miner,
I am human)

Víctor Jara, Canción del Minero

During a very humid morning of June 2015 in Puerto Maldonado, the capital of the region of Madre de Dios, in the Peruvian Amazon, all local businesses decided to close down. One by one, corner stores, hotels, hardware stores, restaurants, Internet cafes and coffee places decided to stop working. On Avenida Fitzcarrald and other main streets in the city, taxi and motorcycle drivers built blockades with rocks to prevent circulation. The road to the airport was also closed. President Ollanta Humala and his cabinet had just signed executive decrees in Lima imposing deadlines to informal gold miners to legalize their activity. He also authorized police and military interdictions in the region to confiscate miners’ machinery, arrest them and burn down informal mining camps.

In response, informal gold miners from Madre de Dios decided to strike to show the importance of gold extraction for the region’s economy. In the main square of Puerto Maldonado, a group of miners and local citizens chanted against the central state. Female
and male miners were holding signs protesting the tight deadlines and the new measures against their activity. Along with them, local officials from nearby mining towns also participated in the strike. They were holding documents with the signatures of other authorities from faraway provinces and districts. The regional government and the municipality did not remain passive either, as they allowed many of the public servants to join the protest. With all businesses closed, private citizens and even local state officials in the streets, all sectors of society rapidly came together to form a united bloc against rule imposition from the central state. On the contrary, no one seemed to be representing the interests of the central state, let alone acting on its behalf.

This vignette provides a synthesis of the two facets of the puzzle that is investigated throughout this dissertation. First, it exemplifies the struggle of the state in the Andes to impose its authority and rules in the periphery. The commodity super cycle in the 2000s boosted the expansion of state institutions in the Andes like never before. The last two decades were characterized by transformative state efforts to expand specialized bureaucracies across the territory, investment in education and health care, finance of infrastructure, increases in the budgets of security forces and the expansion of the political and economic power of subnational governments. However, despite the signs of institutional growth and sophistication, the Andean state still struggles to exert social control, that is, to enforce its rule all over the territory. Locally, its authority still trembles.

Second, it shows how in areas that have been historically abandoned by the state tight socioeconomic networks developed organically, anchored in alternative economic systems that expand in parallel with and excluded from their formal counterparts. The incapacity of the state to project its power is underscored by the expansion of these old social forces that have a strong presence in marginalized areas and a high capacity to resist state regulation. I
am not talking about powerful guerrilla groups, strongmen or other similar actors that are deeply rooted in the imaginary of Latin America. I am talking about a different social actor that, although with apparently limited assets, is capable of regulating social interactions in marginalized areas and shape national policy outcomes, thus thwarting the state’s expansionary efforts. This is the case of informal gold miners, historically impoverished campesinos (peasants) whose low-tech extractive activity frequently clashes with the state political and economic interests. Informal gold mining is an unregulated activity that employs more than 350,000 people in Bolivia and Peru but that also suffers from a myriad of negative environmental fallouts. Though the Bolivian and the Peruvian state have tried to regulate the activity, different state strategies have proven ineffective in limiting the power of informal gold miners in the Andes. Quite the contrary, informal miners have been able not only to repel state regulation but also to influence national resource policy.

This dissertation takes a close look at informal gold mining proliferation in Bolivia and Peru, and seeks to answer three main research questions: Why did state’s institutional growth not translate into an increase in social control? Why are informal gold miners in the Andes able to fend off state regulation? Why are marginalized actors in commodity-driven environments able to influence national resource policy?

In a collection of four papers, this dissertation puts forward a comparative study on how those at the margins of society can undermine state authority through bottom-up collective action. Combining insights from state development, resource politics and informal institutions, this dissertation presents a unique study of the power and influence of gold mining communities in the Andes, as well as the conditions and mechanisms that enable their surreptitious yet powerful contestation to state governance. I ground my work in ten months of original fieldwork in two of the largest gold mining regions in the Andes – rural La Paz in
Bolivia and Madre de Dios in Peru, as well as a third case – Piura in Peru – where the activity is currently expanding. In total, I have conducted 156 interviews in Spanish and Quechua to gold mining leaders, national and local officials, community leaders, and experts, a survey with 100 respondents and ethnographic work.

This introduction presents the main argument and then situates the project in the literature. The first half of this section discusses the impact of resource competitors on state development. The second half presents my approach to study informal gold mining. The section then summarizes my methodology and it offers an overview of the papers.

1.1 The argument in brief

I argue that one of the greatest obstacles to state development in the Andes is not the lack of absolute state capacities but the weakness of its organizational power relative to highly organized competitors. I use the concept of organizational challenger to define collective actors who resist state regulation and the source of whose power lies in the development of inclusionary institutions – originally based on local knowledges and management practices – that are more effective than the state’s formal institutions in redistributing wealth and generating labor opportunities at the local level. While the institutions regulating the activity of organizational challengers emerged originally to provide a subsistence alternative in response to state abandonment of marginalized areas, they have evolved into competitive resource regimes, that is, non-state centered informal territorial arrangements and institutions regulating the priorities, access, management strategies and benefits of mineral exploitation for an enclosed group. By including both local
citizens and local officials within their networks, these informal regimes present a critical challenge for the consolidation of the central state’s authority.

Given their contribution at the local level, informal miners are able to foster popular support, which in turn strengthens collective action. Miners take advantage of the ensuing mobilizational power to form coalitions with local officials, who are more inclined to support activities that contribute to the local economy than to enforce central state’s regulations. Thanks to this partnership with the local state, miners gain leverage to engage in negotiations with the central state and increase their possibility to shape resource policy outcomes.

I argue that this situation poses a dual dilemma to the Andean state. If it wants to increase social control, the state can validate the socioeconomic contribution of organizational challengers at the local level and negotiate social control with them by incorporating part of their agenda into public policy. This is the case of Bolivia, where the government of the Movement towards Socialism (MAS) opted for enhancing miners’ political representation and aiding mining communities. Alternatively, the state can increase its coercive powers against the challengers to reduce their strength locally. This is the case of Peru, where successive neoliberal governments decided to use police and army forces to lead operations tackling miners. Both strategies present serious downsides. While the institutional access granted to miners has weakened the position of the Bolivian state vis-à-vis the informal mining sector, the strategy put forward by the Peruvian state has led to the clandestine proliferation of miners and their association to criminal groups.

My dissertation seeks to rethink state development in relation to a largely overlooked type of competitor – the organizational challenger – and its role in exposing the tensions between central and peripheral state and in frustrating state expansionary efforts. In doing so, it makes four important contributions.
First, it sheds light on the roots of state weakness in Latin America. By exploring informal resource regimes that enjoy great levels of support at the local level, this work suggests that the problem of state’s incapacity to establish itself as the ultimate authority in peripheral areas is first and foremost a problem of legitimacy, and not only a material issue.

Second, this study advances in the understanding of how informal and formal institutions interact. I show how, locally, informal actors lead regimes that include state officials and state institutions. The participation of local authorities in the informal regimes has a double effect: it legitimates weak state authorities in the eyes of the local population and provides the informal sector with a way to ensure its continuity under the guise and protection of formal institutions. This further deepens the fracture between central and peripheral state.

Third, with the exploration in detail of the functioning and the empowerment of organizational competitors and their informal resource regimes, I provide a more complete account of the impact of the commodity boom in Andean states. Challenging common understandings of resource governance in resource-wealthy states that attribute resource control and management decisions exclusively to elites and powerful actors, I show how informal actors with limited assets can also influence national resource policies. This finding brings a small yet important caveat to assessments of commodity-dependent economies in Latin America – state weakness is not only related to institutional strength, but the state’s internal incoherence plays an equally relevant role in enhancing the influence of organized actors from society in resource governance.

Fourth, to the author’s knowledge, this thesis is the first contemporary study of informal miners’ collective action power in Andes at the local and national level and in comparative perspective. By assessing two different strategies to regulate gold mining in two
similar cases, my study provides important insights into how states in expansion are currently trying to bridge the development gap and how effective their strategies are. These findings in turn offer important practical implications for policy makers dealing with resource governance regulation.

1.2 The case of informal gold miners

I call informal miners small-scale and artisanal independent producers who rely on rudimentary techniques and procedures to extract different minerals (Veiga 1997). Informal mining is a labor-intensive activity that operates with a very modest economic investment and often with unskilled local labor force (Hilson 2002). This is the extractivism of the poor because the activity often proliferates in peripheral areas to urban centers where there are infrastructure deficits and limited opportunities. It is estimated that around 30 million people in 70 developing countries depend on informal mining and more than 100 million are directly involved in mining activities (Seccatore et al. 2014).

In this thesis I refer to the activity as “informal” to put an emphasis on the unregulated mining practices characterizing it. Whereas the legal status of the activity has changed throughout time in Bolivia and Peru in more than one occasion, this has had a very limited impact on small-scale and artisanal mining practices which have remained the same for decades. Currently, the activity is considered legal in Bolivia but not in Peru. However, locally, in both countries mining cooperatives and associations have autonomously developed their own rules governing the gold territories where they operate. In both cases, there is no state control over the extractive process, labor relations, tax collection,
environmental procedures and the commercialization process. Whereas the position of the state towards small-scale and artisanal has changed with different administrations, the informal nature of the activity has been a constant.

**Figure 1 Gold mining supply chain pyramid**

Figure 1 describes the supply gold mining chain organized by number of actors and economic power. At the bottom of the pyramid, we find small-scale and artisanal miners who include panners (miners working in placer deposits next to rivers), diggers using semi-mechanized machinery and miners working in underground mines. In a highly dangerous process, miners amalgamate the ore at home – they mix the mineral with mercury and then burn it off to evaporate the mercury and recover gold. In cases of economic need, miners sell the mineral to collectors who work close to their towns but often pay offer little payments. Alternatively, they take it to processing plants which, unlike miners, operate legally and where frequently an important gold percentage is charged to miners, depending on the gold’s
quality. After that, gold is on the market and sold nationally and internationally, formally and informally. Most commonly, Andean gold is sold to India, Switzerland, UK, China and the United States of America (GIATOC 2016). Though the supply chain around gold mining is large, in this dissertation I focus on miners and mining communities. The rest of the chain will be out of my research scope. I center my work around miners because they constitute the basis for the continuity of the activity and are the ones that face the higher risks. At the same time, they are the ones receiving the smallest compensations. Yet, most of the studies on the informal mineral market offer very little information on the functioning of informal gold mining communities.

Informal mining is a suitable subject to examine the challenges that organizational competitors bring about to state development for four main reasons. First, mining is a fundamental activity in the economy of the Andean state – mining exports account for almost 30 percent and 60 percent of total exports in Bolivia and Peru, respectively (World Bank 2019). Since there is no other activity that can provide the amount of direct revenues that extractivism grants to the state with minimal effort, the mining sector has played a fundamental role in financing developmental programs (Centeno 2002; Bebbington 2012).

Second, while it constitutes an important source of poverty alleviation, informal mining is also associated to serious environmental and health impacts. In the countries where the activity proliferates, informal miners are one of the largest mercury polluters. Mercury emissions and the mismanagement of tailings result in mercury poisoning of miners and surrounding communities, decay in the air quality, pollution of water sources and deforestation (Asner et al. 2013). Additionally, due to the precarious conditions of the activity, informal miners are constantly exposed to hazards such as landslides, dust overexposure, accidents with explosives and breathing problems (Hilson 2006). For these
reasons, Andean states currently face important international pressure to address informal gold mining problems.

Third, the geographical distribution of non-renewable extractive resources has unique spatial implications for the state and the informal networks centered on their extraction. The concentration of minerals in one specific area and the large demand of workforce needed contributes to the creation of tight and interwoven networks, which are particularly favorable to study long-consolidated informal practices.

Fourth, as a result of their geographical concentration, miners have developed throughout time a strong repertoire of mobilization and contention compared to other groups working with commodities (Zapata 1980; Dunkerley 1984). In that sense, they constitute a strong test to assess state strategies to exert project authority.

1.3 State capacity in boom times, the extractivism of the poor and state responses

Commodity booms are times when the price of raw materials rises and the state is able to dramatically increase revenues coming into its coffers. Given that resource abundance provides an ‘easy’ source of revenues, literature from Latin America and the Global South associates resource wealth to weak state capacities. State capacity, understood as state’s ability to penetrate civil society and to implement policy choices within its territory (Mann 1984), is often portrayed as lagging behind in contexts of resource wealth. Among the different arguments explaining the adverse effects of resource wealth on the development of state capacities, scholars have highlighted that states that rely on only one sector of the
economy become less capable to reduce poverty in comparison to diversified economies (Ross 2001). Also, given that revenues are alluring to loot, states are prone to mismanagement and to develop corrupted bureaucracies (Karl 1997). Moreover, a high degree of dependence on extractivism usually derives in the development of several institutional pathologies (for example, the growth of clientelistic patterns of action) that end up hindering state development efforts (Humphreys et al. 2007).

The inevitability of the “curse” of resource abundance, however, has been challenged by literature studying resource politics. According to these authors, the sociopolitical conditions prior the boom determine its overall impact on state development. Looking at the case of Venezuela, Terry Karl (1997) – pioneer in the field – argued that elite pacts between entrepreneurs and officials on how to administer oil revenues marked the possibilities of building democratic institutions in the long run. During the oil bonanza, the state could function, comply with its distributive commitments and buy opponents off. However, when oil prices went down and the state did not have enough revenue to continue with this cooptation strategy, Karl showed how the state turned to investing in enhancing its military capacities and silencing dissidents. Similarly, Michael Ross (2001) has argued that when oil was in the hands of the state, state oil companies were used instrumentally to finance political projects, elite pacts and clientelism, which in turn, hindered state institutions and democracy. Adding to this, Timothy Mitchell (2012) explained that extractivism tends to increase the power of economic and political elites in comparison to the working class – which will lead to a disproportional balance of power. Often, transnational companies will have more leverage to pursue their interests which will end up hindering state sovereignty.

More recently, in comparative analyses of state performance during boom times in South America, Kurtz (2013) and Saylor (2014) have found that, in those cases where elites
saw their interests included in state’s development projects and governments assisted them (e.g. answering their demands for public services or institutions to help them maximize their profit), elites generated incentives for the state to use the commodity revenues effectively.

The key implication of both ground-breaking literature and new regional accounts is that state-society relations are a crucial factor influencing the capacity of the state to take advantage of favorable economic conditions. This scholarship, however, has exclusively focused on the relationship between the state and elite-level actors while, in fact, the rise in commodity prices affects a wider number of social sectors. Yet, non-elite actors from society are often absent from the picture and if included, they are conventionally portrayed as contesters (and not participants) of the impacts of extractivism.

This is not, however, the only instance in which non-elite groups from marginalized areas participate in resource governance. In order to draw a more complete picture of the politics of extractivism, I extend my analysis of state-society relations to other actors from society that also raise competing claims over resource governance but who, unlike the previous group, participate in extractive activities. This is the case of the extractivism of the poor. Historically, informal gold mining has been a backup economic activity that peaked during adverse seasonal periods, waves of anti-union repression, economic crises or the implementation of austerity policies and privatizations. During the last commodity boom of the 2000s, however, the number of informal gold miners has increased, and the activity became the main source of income of low-income sectors in peripheral areas. This has radically empowered informal gold miners who, despite their limited material assets, have been able to avoid state regulation and, even more strikingly, they have been able to shape national policy outcomes. The inclusion of the extractivism of the poor pushes us to reconsider both conceptual considerations on state challengers and to further our knowledge.
of the impact of extractivism on state capacities. This in turn, I argue, has important implications for how we understand the current development path of Andean states.

1.3.1 State challengers

Traditional accounts of the relationship between the state and social contesters have argued that state’s limited capacities are often a product of the challenge to state authority coming from powerful counterpowers such as military groups, warlords or strongmen (Migdal 1988; Reno 1999). These actors defy state’s social control – that is, the subordination of citizens’ actions to a system of rules – by challenging the state’s monopoly of violence and territorial control. Using various financial and coercive resources, these counterpowers are able to mobilize people and assert their authority particularly in areas where state’s rule is weak (Migdal 1988: 26).

On the other hand, scholarship with a more micro approach (Scott 1976, 1985, 1998) has described a different challenger arising from the weakest sectors of society. This type of actor does not challenge state’s social control through open confrontation or through the actions of an organized group with coercive means. Open conflict is a costly and risky option that not all marginalized groups can afford, especially when they find themselves utterly powerless in comparison to the state. Instead, most groups challenge state’s social control in subtler ways and from within the system through other actions, such as false compliance, pilfering, slander, sabotaging or faking ignorance (Scott 1985, 1998b). While this type of challenge will not always generate great visible changes at the macro level and it might not overthrow structures of exclusion and oppression, these acts also hinder the state’s power of
I use the case of informal gold miners to theorize a third type of state challenger that combines elements from these two competitors while maintaining a unique character. These are organizational challengers – competitors of the social control of the state, specifically of its rulemaking monopoly. They do so through the generation of strategies of survival that ensure tangible and intangible benefits to the local population, such as infrastructure and employment opportunities otherwise not available to marginalized groups. Unlike the first type of challenger described above, organizational challengers do not pursue the monopoly of violence or territorial control. Their power is not supported by coercion either. On the contrary, they are often actors with very limited coercive (and, more generally, material) capacities. Yet, unlike the second type of challenger, organizational challengers exert open contention to state rules through the development of informal governance systems. These systems are constituted by a set of institutions, often based on traditional practices and situated knowledges, with a distinct orientation to the administration of resources that is better attuned than state institutions to the local needs.

Organizational challengers are a furtive yet strong competitor. They can proliferate in areas where the state has some presence or even significant territorial control but where its rules are feeble. Organizational challengers are empowered by the lack of institutionalized connections between the state and civil society (Eaton 2012). Although they do not aim to install hegemonic authority, their systems are powerful because they lead to an
institutionalized order with high inclusionary power and with a repertoire of advantages to people within the networks.¹

1.3.2 The impact of the extractivism of the poor on state development

Recent attempts to include informal miners in the analysis of the last commodity boom in the Andes recognize that the developmental trajectory of these states is different from the common story of the ‘resource curse’ (Dargent and Urteaga 2016; Dargent et al. 2017). Building on the Peruvian case, these authors argue that the Andean state has in fact used the commodity boom for the expansion of state capacities. They also acknowledge the distinctiveness of what I call organizational challengers. Informal miners, explain Dargent et al. (2017), are competing agents at the local level better able to capture the rents created by the commodity boom, capable to minimize state regulation and with the ability to switch between activities when needed. Although this literature advances in recognizing the uniqueness of these competitors, the authors do not fully explain the origins of the strength of the challengers. Miners are described as “unforeseen outcomes of the commodity boom”. They are people without organizations or previous social embeddedness that nonetheless are able to maintain contention for long periods of time and easily avoid regulation from recently empowered states. Along with criminal groups and mafias, informal miners in these accounts are seen as new actors working in hidden and chaotic spaces and hindering state development.

On the other hand, scholarship looking at the persistence over time of informal

¹ A full discussion on the concept and how it differs from other types of challengers can be found in Paper 1.
extractive economies in Africa and Southeast Asia argue that the capacity of these challengers to exert contention cannot be explained only by the favorable economic context. There is a structure validating the power of action of informal miners. The relatively easiness to extract lootable resources combined with weak formal regulation facilitates the emergence of “shadow states” – parallel organizations characterized by patron-client relations where informal actors and practices are integrated into state’s resource governance (Reno 1995). The international demand for commodities and the development of transnational economic structures to exchange these resources facilitate the links between local states and transnational capital, further contributing to bypassing the rules of the central state (Reno 1999; Le Billon 2001). Shadow states exert their power to the detriment of central states’ authority and use state officials for their self-interests, distorting their duties and undermining the legitimacy and effectiveness of state institutions (Nordstrom 2004; Verbrugge 2015).

Although the concept of shadow states helps us understand the continuity of informal mining, we learn little about the internal dynamics that facilitate their development. The areas where informal miners work remain “shadowy” not only because they are not part of the formal economy, but also because there is limited understanding of their local practices. This is salient considering that in the Andes, literature has fully mapped the wide range of resource governance practices, policies, arrangements, contention and negotiated strategies surrounding large-scale mining (led by international companies) to assess its impact on national governance (De Echave et al. 2009; North et al. 2009; Bebbington 2012; Li, 2015; Bebbington and Bury 2013). By contrast, our understanding of how territories where informal mining proliferates are governed and how the activity impacts state development is
To assess the effect of the extractivism of the poor on state development, the first goal of this dissertation is to investigate why informal resource governance systems are so resilient at the local level. To this end, I build on bottom-up approaches that seek to understand how state-society relations are recreated and reinterpreted locally. Rather than seeing the state as a fixed entity, these studies problematize the relationship between the informal mining economy and state representatives subnationally (Peluso 2017, 2018; Verbrugge 2015, 2016; Lahiri-Dutt 2018). They agree with claims pointing to the existence of a structure validating the actions of informal miners. However, they contest the basis of this structure and the overall impact of informal extractivism on state development. Informal resource governance practices are not a sign of deviance. The state itself contributes to their continuity implicitly and explicitly – e.g. putting forward incoherent regulation that does not respond to the local context and forming coalitions with miners (Snyder 2006).

Perhaps the strongest claim of state studies “from below” is that, contrary to top-down approaches, they do not think the persistence of informal mining necessarily indicates feeble state capacities. Informal miners can contribute to maintaining the “fantasy of the state” (Gupta 1995) in peripheral areas – that is, to legitimize the idea of the state as an authority. By investigating the practices of informal governance systems involving state and non-state actors, new studies argue that informal resource governance systems promote the interests of both local officials and informal miners (Peluso 2017). Relying on the strengths of state governance, these studies show how informal governance systems can coexist with and complement state governance in peripheral areas.

---

institutions, local officials have supported the development of an environment conducive to the persistence of informal mining and their autonomy. In doing so, authorities also legitimize their political power and authority, provide an informal revenue and contribute to the consolidation of state rule on the upland frontier (Verbrugge 2015: 177).  

I go one step further, exploring the drivers of informal resource governance systems. My study shows that gold extraction in the Andes is ruled by longstanding governance systems sustained by labor practices, local knowledges and land relations that articulate socioeconomic interactions of people around informal mining communities. Through a close inspection into the social dynamics associated with informal gold mining extraction, I outline a set of key practices originated in the Andean peasant tradition privileging local redistribution, direct negotiations and the preservation of close ties and other agrarian activities that have sedimented outside of state rule. The wide scope of informal mining networks as well as the deep engagement of both formal and informal actors in these informal systems makes them highly resistant against centralized state governance.

My argument is that the consolidation of these informal governance systems was possible due to the relationship between the state and the periphery. Rentism, the accumulation of capital based on the extraction of rents, allowed central states to finance state expansion without having to integrate society within its expansionary projects. This left peripheral areas abandoned and deprived of basic rights. At the same time, isolation allowed for the development, continuity, and strengthening of parallel governance systems. These systems became fundamental for the survival of marginalized groups and in time they

---

3 I elaborate on the contributions of the literature looking at informal mining in the second half of this introduction.
developed an organizational advantage that the state was never able to catch up to. Subsequent processes of state development and reforms advanced in increasing the tax base (mainly through rents) and in expanding bureaucratic bodies, but never fully closed the gap of informal governance systems in articulating peripheral societies. Both the austerity reforms of the 1990s and the last commodity boom of the 2000s expanded the power of the organizational challengers making their systems not only capable to ensure survival but also able to foster social mobility.

The argument complicates our vision of extractivism and its effects on state development. The extractivism of the poor presents less visible yet deep and resilient challenges to the state. My findings show that despite the institutional growth of the state in absolute terms and its efforts to physically reach the periphery, the state still suffers from an organizational disadvantage in relation to highly organized competitors in marginalized areas. The organizational shortcomings of the central state are aggravated by the partnership and participation of local state authorities in informal governance systems, in an attempt to legitimize their authority in impoverished areas. Thus, the extractivism of the poor contributes to both supporting the role of the state at the local level and to impeding the central state from emerging as the ultimate national authority.

1.3.3 State responses

My second argument refers to state responses to organizational challengers. Authors looking at state strategies to regulating informal gold mining such as Baraybar and Dargent (2019) have argued that determinants of state responses have less to do with state capacities and more with the political and institutional trajectories before the increase in gold prices. In
the authors’ account, Bolivia has opted to limit enforcement against informal mining because miners in the country are politically active and highly influential. Hence, in a case where the costs of regulations seem high, the state prefers to forbear from regulating against informal mining and benefit from miners’ electoral support. By contrast, the authors argue that in Peru, where miners do not have such political power, it was easier for the state to ignore the issue. It was not until the state faced domestic and international pressure that it decided to enforce the law.

My research finds that there are in fact significant state efforts to address informal mining regulation in both cases. I show that state strategies are indeed based on antecedent state-society relations – specifically, on the institutionalized vision of the role of the state vis-à-vis society, but also, on state’s priorities.

In Bolivia, where the state acknowledges the contribution of informal mining in providing development opportunities, the state has granted political representation to miners and created several institutions to aid the activity. This strategy aims to bank on the networks of the miners to increase compliance. Though the strategy has shown positive results, it has also led to the empowerment of miners who can leverage their power against state regulations. By contrast, the constitution in Peru only considers large-scale mining as a productive activity. This has limited the state’s understanding of informal mining and shaped its approach against any other form of mining that is not large-scale. Following this rationale, the Peruvian state has privileged keeping its monopoly over resource governance by implementing draconian policies against informal mining. This strategy has resulted in increasing the duties and budgets destined to security and army forces, yet it has not showed any positive effect on the regulation of informal mining. On the contrary, coercive approaches have favored the expansion of informal mining to new areas and the emergence
The diverging strategies clearly illustrate a dilemma for Andean states. With the empowerment organizational challengers, the late arrival of the state to peripheral areas is met with resistance and cannot immediately translate into both social control and centralization of resource governance. On the contrary, the Bolivian and Peruvian cases seem to show that the Andean state is faced with an “either-or” situation: if it wants to increase its social control, the state has to validate the power of organizational competitors in the periphery and give up aspirations of a centralized resource governance; on the other hand, if it wants to centralize governance of natural resources, the state has to do it through coercion pushing state competitors to continue their activity secretly, completely outside of the state radar.

### 1.3.4 Bottom-up change

The third part of my argument explores how very similar states, facing the same problem and adopting different strategies end up with the same outcomes – i.e. incapacity to regulate informal miners. More puzzling yet, how can we explain that miners are not only able to avoid regulation but also to influence national policy outcomes? As stated at the beginning of this piece, this scenario challenges traditional accounts that focus exclusively on elites as the main actors of resource governance policymaking. These top-down accounts overlook contention dynamics, alliances and negotiations between non-elite actors taking place at the local level, which also have a repercussion in both state strategies and national policy outcomes.

To account for these dynamics, my study disaggregates the state at two different
levels: the national level, domain of the central state, and the subnational level with local state branches. The disaggregation of the state is necessary because historically, state representatives at the local have had more interaction and relations with the organizational challengers than with the central state itself. This has important repercussions on the behavior of state officials at the local and national level. Locally, state officials have different interests regarding resource policies. Having been abandoned by the central state, local officials depend on local votes and the local economy. More importantly, local officials actively participate of informal governance regimes given all the benefits and the informal welfare it provides. This has created the conditions that enable alliances between officials and miners, who lead the most important economic activities. Together, they form informal pressure groups which exert bottom-up pressure against central state regulations. These pressure groups help miners to avoid regulation, voice their concerns and ultimately, these local state structures are also used as a springboard to get resource policy change.

The formation of bottom-up pressure groups that include the participation of the local officials exposes the degree of fragmentation within the state, which weakens its authority, mandates and capacity of action. These findings echo both the arguments stated before around the impact of resource wealth on state development stating that we need to look at precedent state-society relations and at political (institutional) arrangements in order to assess the impact of the boom on state development. What I am adding, however, is that highly exclusionary state-society relations and state’s weak organizational capacities not only enable privileged groups to use central state institutions instrumentally for their own private ends, but they also allow less powerful groups to undermine state authority from below.

Thus, in both Bolivia and Peru the exhibition of the weakness of state authority is used by miners to force the central state to negotiate the terms of mining reforms. Through
the formation of a cohesive and strong coalition involving different actors from civil society and the state in the periphery, informal pressure groups are able to demand the central state to acknowledge their political power and engage in negotiations. Lacking ties with the periphery, the central state has no other option but to begin a bargaining process with the challengers and accept their input in national state resource governance.

After discussing the relationship between organizational challengers and state capacities in context of resource wealth, in the second half of this introduction I discuss approaches to the study of informal gold mining in the Global South and outline some key conceptual definitions.

1.4 Recent approaches and concepts to the study of the extractivism of the poor

1.4.1 Approaches to the study of informal gold mining

There are three mainstream approaches to the study of informal gold mining as it operates now (See Table 1). These approaches are not necessarily mutually exclusive but,

---

4 I focus on approaches from the last thirty years because this literature gets closer to the analysis of the activity as it is now. Previously, there was a vast literature from the Andes on mining workers and mining cooperatives, but this scholarship does not necessarily study the activity around the lines of informality. Authors focused on the miners’ role in the labor movement and, their activism against
on the contrary, they represent different understandings on the causes and sources of continuity of informal mining. Moreover, they represent the growth of a research agenda around the activity. Drawing primarily on cases from Southeast Asia and Sub-Saharan Africa, one body of literature understood the expansion of the activity as one of the problems arising from weak or failed states. Problems with the control of mineral exploitation were seen as a consequence of states’ limited capacities to exert their authority against alternative governance systems led by warlords who built their power around the rent coming from minerals (Reno 1995, 1999). These approaches focused on how illegal resource exploitation served to finance armed conflicts and parallel structures of power (Le Billon 2001). In the Andes, this approach emerged later but it is currently the most prominent among donors, state institutions, researchers and international Think Tanks.

________________________
Table 1 Summary of approaches from the last thirty years to the study of informal gold mining

<table>
<thead>
<tr>
<th>Approaches to informal gold mining</th>
<th>Thematic focus</th>
<th>Relevant actors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informal mining as a result of weak state capacity of regulation and the presence of illegal and criminal forces. Emphasis on state enforcement capacities.</td>
<td>Legalization laws and enforcement politics. This literature also investigates the socioenvironmental impact of the activity.</td>
<td>Policy makers, national level authorities.</td>
</tr>
<tr>
<td>Informal mining as a poverty alleviation alternative. Emphasis on the structural conditions (exclusionary policies, processes of displacement and rigid legislation) that have fostered the continuity of informality in mining.</td>
<td>Legalization laws, alternatives for market insertion and inclusionary initiatives to address miners’ needs.</td>
<td>Policy makers, exporters, mineral buyers and mineral processors.</td>
</tr>
<tr>
<td>Informal mining as a product of the sociopolitical transformations taking place in state’s unregulated spaces. Emphasis on informal mining governance and the development of informal rules at the local level.</td>
<td>History of mining, local dynamics and social interactions between relevant stakeholders. Special attention to ties between formal and informal actors.</td>
<td>Miners, local communities, elites, local authorities.</td>
</tr>
</tbody>
</table>
In practice, studies and reports centered around state limited capacities vis-à-vis informal mining contributed to identify the gaps in mining legislation and weaknesses in enforcement policies. They also outlined the correlated effects of informal mining such as the clandestine traffic of mercury and other needed implements (GIATOC 2016), the loss in revenues (De Echave 2016), the environmental damages developing from the lack of safety procedures (SPDA 2015), the participation of guerrilla movements (Rettberg and Ortiz-Riomalo 2016) and labor exploitation practices within the sector (Verité 2016). At the same time, these studies have also influenced the orientation of state policies towards the activity, in several cases aiming at informal mining’s criminalization and full eradication. Particularly in the case of Latin America, reports and recommendations from international agencies call for the state to “combat” informal gold mining.

In the light of the failure of draconian policies, which in none of the cases succeeded in eradicating or in reducing informal mining, studies of informal mining shifted their attention towards the structural socioeconomic and political conditions that favor the precarity of informal mining over time. Authors such as Gavin Hilson, Marcello Veiga, Samuel Spiegel and Kuntara Lahiri-Dutt strongly criticized early state approaches to informal mining and policy recommendations from international agencies for not being locally grounded. Conventional assessments, they argued, only evaluate the activity based on its degree of rule compliance and its environmental footprint (Spiegel 2012; Labonne 2014). However, they dismiss local practices and informal mining’s contribution to the local economy (Siegel and Veiga 2010), inequalities within the activity and common struggles of the informal mining population. One of the most important contributions that these new approaches bring is the identification of common political and economic processes across the
Global South that have pushed impoverished sectors towards informal mining. For example, adjustment reforms, cuts in agricultural programs, the implementation of exclusionary resource policies (Hilson 2002; Fisher 2007; Siegel and Veiga 2010; Lahiri-Dutt 2018), the displacement of rural groups to favor large-scale extractivism (Hilson and Garforth 2012), and inadequate laws for small producers (Veiga et al. 2014; Damonte 2016).

A second contribution of these authors was to differentiate actors within the supply chain. They showed that mineral processors and mineral collectors faced less legal restriction and made more profit compared to producers who were commonly the main target of regulation (Spiegel et al. 2006). Consequently, authors argued for a differentiated legislation, less oriented towards criminalization and more towards offering flexible regimes for small-scale and artisanal producers (Seigel and Veiga 2009). Hand in hand with the development of this approach to informal mining, different international initiatives with incentives-based programs began their work in the Andes with the aim of promoting legalization and reward small-producers that followed environmental standards (Stocklin-Weinberg et al. 2019). Other scholars and international agencies worked towards finding models of participation in gold governance that could allow states to gather the input of miners in the policymaking process or in training programs (Veiga et al. 2015; Salo et al. 2016).

Thirdly, the scholarship looking at the structural socioeconomic and political conditions allowing the continuity of informal mining made progress in studying state’s practices that impeded miners to legalize their activities. Following insights from economist De Soto (2000) on the barriers to legalization, authors showed how even those willing to join the formal sector failed in their attempts to do so given state’s heavy bureaucratic burden. Miners are unable to follow the rules of legalization because the standards are too high for miners to meet making it more convenient for them to remain out of the state’s control.
Legal structures in countries where informal mining proliferates are rigid, mirror the interests of donors and do not account for the ups and downs that characterize the activity (Hilson and Maconachie 2017). The bureaucratic process is onerous, confusing and it offers little payoffs. Hence, miners prefer to deal with the risks and dangers arising from their informal status.

More recently, a different group of scholars working on informal mining have taken a step further into understanding informal mining as a system on its own. By integrating methodologies oriented towards learning about the experiences of miners, such as ethnographies, discourse analysis, focus groups and interviews, new approaches place informal miners’ practices and institutions in the foreground. Authors such as Nancy Lee Peluso and Boris Verbrugge argue that informal mining needs to be understood not simply as a product of sociopolitical processes but also as a catalyst for other transformations (Verbrugge 2015, 2016). These approaches see informal mining as a socially embedded activity that, in contexts of marginalization and restricted access to basic resources or political participation, has developed a unique set of interactions and practices that involve actors from both the formal and informal world (Martson and Perreault 2017; Peluso 2018). In the Andes, these studies draw on iconic anthropological studies of mining in Latin America (Nash 1978; Cleary 1979) outlining the environments and political struggle behind the activity to interpret local dynamics and political changes around informal mining (Marston 2019).

My study follows this last approach to informal gold mining. I focus on local dynamics to explore how these constitute complex systems that grant communities several rewards beyond survival. Given that literature has mostly drawn its insights from Asia and Africa, I am interested in understanding how informal gold mining in the Andes is linked to
and in turn influences larger processes both at the local and national level. This requires recognizing the constraints and incentives to form organizations outside of state’s formal institutions. In other words, it is necessary to acknowledge the marginalized socioeconomic condition of miners, but also, that there is a voluntarist component from those who have never been fully integrated into the capitalist economy to favor the continuity of alternative institutions given the multidimensional benefits they offer (Chen 2012).

My aim is to bring three important additions to the study of informal gold mining. Firstly, I am interested in tracing from the bottom-up the effects of informal mining in order to recognize how the practices at the local level end up shaping outcomes nationally. Secondly, in this process, I am interested in how collective action is formed and used as a contention weapon. By outlining the process of empowerment of informal mining groups, my project seeks to contest conventional visions of informal mining, and informality in general, that describe this group as apolitical – or incapable of political action. Instead, I show that exclusionary environments favor the development of collective resistance and contestation. Thirdly, I integrate the perspective of local communities into the understanding of informal mining. By accounting for the perspective of local communities who face directly the impact of informal mining, we can broaden our knowledge on the environmental factors that favor the continuity of informality and on the elements that have made informal miners’ empowerment possible.
1.4.2 Resource regimes and extractive institutions

In line with my approach to informal gold mining, in this dissertation I work with key concepts that emphasize the power struggle surrounding gold territories. One of those concepts is resource regime, here defined as the consolidation of a hegemonic form of gold territories’ governance. This form of governance is comprised and consolidated by particular socioeconomic conditions, institutions and territorial arrangements that support specific interests and wealth accumulation practices based on gold exploitation for an extended period of time (Marston and Perreault 2017: 255). I have chosen this definition over others that emphasize coordination and management of common pool resources (see, Ostrom 2000; Young 2006) because I am interested in highlighting the political aspects – power imbalances, inequalities, exclusionary conditions – behind the institution of an order.

In studying resource regimes my focus is on disentangling how these became assimilated as accepted forms of rule, forms of production and interaction in gold territories; that is, the aspects that grant resource regimes stability and allow their continuity. In that sense, I explore questions such as why has informal gold mining become the “common sense”, the “normal” way to govern such territories? Why do communities prefer to negotiate with informal miners and settle for sometimes disadvantageous agreements instead of relying on state institutions? Why is the activity widely accepted in the rural communities here studied despite the negative effects that the activity brings about? Why is informal mining chosen over formal large-scale mining? And, why do local officials choose to side with informal miners and not with the central state?

Whereas formal resource regimes are enforced through laws on resource administration, informal resource regimes rule due to the predominance of particular
informal institutions. To trace empirically the development process of regimes and understand their effects, I look at informal institutions, that is, the collection of rules and organized practices that are embedded in structures of meaning and resources (March and Olsen 2006: 3). These rules and practices grant value and meaning to particular activities and they become relatively resilient to actors’ preferences. Institutions provide actors with webs of significance, that is coherent narratives that serve to guide and justify the actions of the actors (Geertz 1973). In that sense, they impact actors’ lives by shaping their identities and preferences (March and Olsen 2006: 10).

I follow Cameron (2018) in adopting an interpretative approach to institutions where the focus is on the viewpoint of agents and where we recognize their agency and judgement. Going beyond cost-benefit assessments, in this view, institutions are more likely to endure if the actors involved recognize and value the goals intrinsic to these institutions (Cameron 2018: 3). Rather than assuming the role that informal institutions play at the local level, I investigate what type of local practices these institutions privilege, what kind of meaning actors attribute to those practices, how attune these are with the local context and how they shape actor’s behavior. My study sees institutionalization as an outcome, as the crystallization of a set of meanings that have been developed and modified along with gold mining expansion.

My claim is that informal gold mining regimes exert quasi-hegemonic rule locally because its activities are linked to institutions composed of deeply embedded practices that are part of the local Andean culture and which guide practical judgement for the actors involved. The impact of the informal resource regimes is so widespread in gold mining territories that it has articulated the interests of both non-state and state actors, who combine the use of formal and informal institutions to preserve it. This type of arrangement generates
informal extractive institutions (also known as “institutions of extraction”, see Snyder 2006) that become the technology of rule around gold extraction and revenue distribution. Extractive institutions are constituted by rules and practices sanctioning the access, power of decision and participation in gold mining and its revenues. As extractive institutions are reproduced, they establish governance systems, that shape patterns of interactions between actors in gold mining territories.

1.4.3 Informal economies

Along with informal extractive institutions, informal economies are also part of informal resource regimes. Informal economies are constituted by the networks, productive activities and unprotected workers that operate unregulated by the state (Chen 2012). In my argument, informal institutions contribute to the effectiveness of informal economies by setting the priorities and orientations when it comes to relations of production, labor practices and employment criteria. At the same time, informal economies materialize the success of the institutions, thus reinforcing their legitimacy in the eyes of the actors. It is this symbiotic relationship which, on the one hand, generates new political dynamics and, on the other hand, empowers actors to act collectively in defense of this social order.

My understanding of extractive institution only refers to the sphere these institutions govern, that is, extractivism. This definition is different from that of Acemoglu and Robinson (2012: 430) where the term is understood as a type of political and economic institution that grants economic rewards to an elite at expense of the rest of society and whose beneficiaries will then use their resources to limit the participation of the masses in the political and economic sphere.
Whereas some state agencies and practitioners have chosen to talk about illegal economies, black markets or even criminal markets to address the politics of small-scale and artisanal gold mining (MINAM 2016; GIATOC 2016), I treat the activity as informal to focus on the unregulated practices around resource governance. My choice responds to the fact that state-centered criteria are inconsistent and counterproductive for the study of gold mining in comparative perspective. There is no consensus around small-scale and artisanal gold mining in the region or even within the countries studied – the activity is considered legal in Bolivia and Chile but informal or illegal in Peru and illegal, criminal or “ancestral” in Colombia. These labels do not follow the same parameters and they have changed in more than one occasion during the last twenty years depending on the visions of the administrations in place. For example, the administration of president Alejandro Toledo (2001-2006) in Peru passed legislation supporting the small-scale and artisanal mining sector, but the following two governments changed the mining laws to prevent the proliferation of the activity. None of these changes, however, impacted mining practice on the ground. Likewise, in Bolivia, the state granted legal recognition to small-scale and artisanal mining for the first time in 1958, yet this recognition never came with any state initiative to regulate the extractive process which does not follow any environmental parameter, or, the commercialization processes which take place most commonly outside of legality and often avoid taxation. This is why scholars working on mining in Bolivia such as Isamu Okada (2016) argue that small-scale and artisanal mining in Bolivia is a case where informality is in the guise of formality.

By contrast, the term “informal” is broader and it accounts for different practices both illegal and not illegal. According to Hart (2010: 141), informal economic action is characterized by avoiding state regulation either due to the lack of regulatory enforcement or because, while violating existing rules, the activity remains invisible to bureaucracy.
Moreover, the “informal” component of these economies highlights the distinction between the classic Weberian definition of rational enterprise (i.e. the rationalization and labor division within the working activities) and the unregulated self-employed earnings (Beckert and Dewey 2017: 10). This aspect is key to my work, as the informal economy of gold is the space where enrooted local practices, coordination efforts, and power struggles are reproduced and materialized in favor of the continuity of an informal resource governance system. Hence, the term “informal economy” allows me to focus on the meaning that participants give to their productive practices.

I have centered my attention on accounts that focus on understanding informal economies as complex system with their own structures, opportunities, advantages and disadvantages (Heintz and Pollin 2005), rather than on the political and bureaucratic problems associated to its insertion to the formal economy (see De Soto 1989). The main reason is that the former body of scholarship has advanced in understanding the conditions and agency-related factors fostering the continuity of the informal economy while also going further exploring the origins and composition of economic informality (Portes and Haller 2004; Chen 2012). In the case of Latin America specifically, these studies contest rigid divisions between the formal and informal market, shed light over the hierarchies within informality and recognize the different degrees of vulnerability, power and risk involved. For example, some have been pushed to informality after the abandonment of the state, which neglects its duties over certain groups and make them vulnerable to exploitation by informal and illegal groups (Goldstein 2016). Other actors belong to the informal sector because they are excluded from the formal sector by firm practices, strong state regulation and labor market divisions. A different group of actors see informal economies as an exit to labor duties and tax obligations (Perry et al. 2007). For a vast group, on the other hand, informal economic
activities are combined with formal ones, as a strategy to maximize earning (Maloney 2004), to avoid incoherent regulation or to adapt to different economic contexts (Levy 2008).

Scholarship interested in understanding the systems of reproduction of informality does not see formality necessarily as an ending point. On the contrary, the attention is oriented towards the socioeconomic transformations that have further perpetuated the presence of informal economies and that have empowered the sector. This is the case of neoliberal reforms and the expansion of global markets in the Global South. The former has made work precarious, weakened the advantages of formality and increased the opportunities around casual labor (Bromley and Wilson 2017). The latter phenomenon contributed to create incentives for informal economies to bypass the state and expand across borders (ILO 2016). Together, these changes favored the development of a symbiotic relationships where both formal and informal activities depend on each other. Informal activities profit out of the many constraints that formality has, and in several cases, informal economies support the continuity of formal labor, for example, providing raw materials at a lower cost (Latouche 1993: 128; Peterson 2010: 253).

This take on informal economies is consistent with my interest in understanding the informal world from its own complexity and from the different positions of participant actors. Also, by reflecting on the macro changes that have impacted informal activities, I am able to explore how actors are responding at the local level to greater transformations. Rather than portraying participants of informal economies as victims or powerless actors defeated by the economic system, I focus on the organizational modes rising in peripheral areas that play and transform society from below.

To this end, I build on the concept of popular economies (Gago 2017: 6) – informal economies that combine community skills of self-management, collective strategies and
intimate know-how as a technology of mass self-entrepreneurship. Popular economies are a byproduct of processes of dispossession and exclusion emerging from neoliberal reforms and developmentalist efforts in Latin America from the last twenty years that primarily rely on extractivism as a form of incorporation into the global market. According to Gago (2017: 12), popular economies are precarious spaces of social inclusion that reconfigure economic environments by eroding traditional labor places, households, the organization of daily life – and I would add, natural resources – to enable the proletarianization of masses that cannot participate in the formal economy.

While the concept of popular economies is rather old and has been commonly used in the Andes to describe the reproduction of campesino and Andean communities’ practices in the economy\(^6\), Gago enriches the understanding of this term by showing how popular economies are a form of both appropriation and transformation of neoliberal and global market conditions. Due to popular economies, excluded sectors are able to participate in the global economy and reproduce certain features of neoliberalism, for example, the deregulation of labor and, at the same time, include their own contesting practices, such as the predilection for working with close ties which goes against neoliberal notions of competitiveness.

Furthermore, Gago (2017: 218) argues that, in the reproduction of these popular economies, a new form of politicization is also emerging around the control and

\(^6\) The concept has been used by historians, sociologist and anthropologist describing the impact of processes of urbanization in the 1970s and the rise of informal economies hand in hand with the migration of indigenous and peasants to new areas. See Zavaleta 1978, Quijano 1998, Matos Mar 1991.
administration of the spaces and resources they work with. With the occupation of streets in the case of informal vendors, the economic empowerment of entrepreneurs or, as in the case of this thesis, with the development of new forms of administration of mineral wealth, actors acquire rights and control over their environments. This radically shapes their relations with the state, with the surrounding communities, as well as the actors’ aspirations regarding society. In gaining autonomy, argues Gago, the governed also gains resources to foster their political preferences over the rule of the spaces where it has come to occupy a prominent role.

1.5 Case selection and methodology

1.5.1 Case selection

I have chosen the cases of Bolivia and Peru because their history and development paths have been marked by mineral wealth and, as such, mineral control is considered fundamental to their development. Given their natural resource abundance, both lands were the center of attention of the Spanish conquerors. Since the 1500s, the land where Bolivia is now located belonged to the Viceroyalty of Peru. During the colonial years, gold and silver mines in Potosí, Bolivia, along with the mercury mines in Huancavelica, Peru, practically funded all the expenses and expansionary projects of the Spanish Crown (Brown 2012). By the end of the 1700s, the Bourbon reforms annexed the land of Bolivia, known at the time as Upper Peru, to the Viceroyalty of Río de La Plata to exert more control against mineral smuggling. This division fortified independentist alliances between leaders in the South.
After countries achieved independence in the 1820s and became republics, all their developmentalist programs have relied on extractivism.

Mining in particular has been and still is one of the most important contributors to their economies. Moreover, over the last twenty years, when the commodity made mineral prices skyrocket, the governments in place have actively looked to exploit their mineral wealth, either nationalizing mining companies or putting forward aggressive campaigns to attract mining investment. The revenues coming from mining have been one of the most important sources of funding to states’ expansionary projects and social programs in Bolivia and Peru (Bebbington 2012). In that sense, these are cases where states have pressing interests to ensure mineral control.

The second reason to choose these cases was the rapid proliferation of informal mining. Whereas internationally the commodity boom attracted foreign investment and large-scale mining operations to the Andes, locally the commodity boom favored an incredible growth of the small-scale and artisanal mining sector. When the commodity boom reached its peak in 2008, there were informal mining deposits in 20 out of the 25 regions in Peru producing 28 percent of total gold exports. Almost 70 percent of that informal production comes from Madre de Dios, the Peruvian Amazon (GIATOC 2016). In Bolivia, mining cooperatives, most of them from rural La Paz, multiplied fivefold and started producing more than 30 percent of the total gold exported by the country. Production here went up from 6.5 at the beginning of the decade, to 24 tons per year in 2008 and more than 48 tons by 2014 (Córdova 2015). Hence, Bolivia and Peru are cases where informal mining has become an important problem affecting state’s interests.

The third reason is that these are cases where we observe clear state efforts to increase its capacities, reach peripheral areas and enhance social control there. State efforts to regulate
informal mining, however, have translated into two different strategies that are in line with the countries’ political agenda. Whereas in Bolivia social concerns, reduction of inequality and redistribution became priorities under the government of left-wing president Evo Morales (2006-2019), in Peru the last twenty years under the governments of Alejandro Toledo (2001-2006), Alan Garcia (2006-2011) and Ollanta Humala (2011-2016) have been characterized by a pro-business attitude, right-wing oriented, that looks to maximize state’s capital value by prioritizing growth and competitiveness. These contrasting rationalities have shaped the different attitudes towards informal mining. In Bolivia, the state has opted for recognizing the contribution of informal miners to the economy, giving them political representation and working with their associations as a strategy to increase compliance. By contrast, Peru opted for criminalizing the activity and raised the bureaucratic burden to legalize mining activities as a strategy to dissuade the proliferation of informal mining and increase compliance from mining communities. The different state approaches vis-à-vis informal mining make the comparison productive to contrast the outcomes of different state-society relations.

Within each country, I have chosen to work in the regions with the largest gold mining informal production – Madre de Dios in Peru and rural La Paz in Bolivia. Specifically, in Papers 1, 3 and 4 I draw my insights from the mining towns of Huepetuhe and Santa Rosa, respectively. Given their high informal production, these two places were the main targets of the legislation on informal mining and miners from the two regions were the main actors contesting the reforms. In that sense, they represent the hardest test for the state. At the same time, these regions and mining towns are also two cases where the activity is consolidated and has a long history, which makes it easier to trace the development of institutions and regimes around their mining.
Paper 2, on the other hand, draws from a case study in Tambogrande, a city located in the region of Piura, the northern coast of Peru. I purposely selected this case because it is one of the well-known towns where communities have strongly opposed large-scale mining operations led by transnational companies, but where currently informal mining is proliferating without local opposition. In that sense, it is a good test of what explains local support to informal gold mining activities.

1.5.2 Methodology

“What is left to be done? We would need to be in the minds of these people to know how they move…” (Interview # 75, 18 May 2017) a policymaker from Lima, Peru told me, expressing his frustration as informal gold mining continued expanding, despite the legal improvements in the mining law. Researchers might as well share the same concern, given how difficult it is to collect data on informal activities for its clandestine and disperse character. Challenges and risks increase around informal gold mining, given the geographical areas where the activity takes place, its sometimes-illegal status and the particularities of different mining communities. As a consequence, studies on informal mining resource governance in the Andes feature all possible aerial photos, graphics, maps and production estimates, but qualitative information on the miners’ communities and their modus operandi remains scarce.

Limited knowledge of informal mining has contributed to building an imaginary where informal actors are often depicted as transgressors, misfits and barbarians. Likewise, the environments surrounding informal miners are commonly described in the media and academia as lawless and anarchic. Not only have these stereotypes hindered the possibilities
of engagements and discussions between the state and informal gold miners, but also these misconceptions have prevented research from investigating how these informal actors organize, interact with authorities and how they mobilize to further their political interests. More generally, the stereotypes on the informal sector limit the possibilities to study why under favorable economic contexts and active state expansionary efforts, the Andean state fails to override or at least, decrease the power of its competitors.

With the aim of bridging this knowledge gap, I worked with three research questions:

1. Why state’s institutional development has not led to an increase in social control?

2. Why are informal gold miners in Bolivia and Peru able to fend off state regulation in countries?

3. Why are marginalized actors such as informal miners in commodity-driven economies able to influence national resource policy?

My methodology throughout my four papers have been driven by an interest in understanding the politics from below and from outside the state. Specifically, I have used political ethnography – immersion within the subject matter – to produce context-based arguments. Political ethnographies require an in-depth analysis of a political issue through the study of its participants, practices and the relations that a political phenomenon engenders (Weeden 2009). Given its orientation towards interpreting the rationale and motivations behind people’s actions (Geertz 1973), ethnographies have been an excellent resource to capture the complexity of mining communities and the practices that enable collective political action.

In order to reconstruct the process of political empowerment of miners from the bottom-up, I have worked with multi-sited ethnographies – ethnographies undertaken in two different physical spaces under the same research design (Burawoy 2000). A prominent
proponent of multi-sited ethnographies, anthropologist George Marcus (1998) argued that these offered two advantages: First, they focus on following the trajectory of knowledge, relationships and political practices over non-contiguous physical spaces. In that sense, they are useful to trace miners’ collective political action at different levels – local, regional and national. Second, they are oriented towards understanding a phenomenon in relation to broader systems. Rather than working with the dichotomy of “the local” versus “the national”, multi-sited ethnographies aim to construct aspects of the system through the mobile, yet continuous relations and practices of the subject studied (Marcus 1995). In other words, I can assess in comparative perspective how the practices of an informal regime are used and reinforced through interactions in multiple arenas with state actors, and how this in turn, impacts net state development processes and national resource regimes.

The gains of multi-sited ethnographies for political science are both from the heuristic and methodological point of view. On the one hand, multi-sited ethnographies in two different countries allows us to see how collective responses emerge from a shared exclusionary condition and form networks operating at various levels and trespassing state-society boundaries. That is, we move from the comprehension of cases on informal groups towards an understanding of contestation systems immerse and reproduced from within and outside of the state. Put it simply, we “institutionalize” the presence of informality in state development.

On the other hand, whereas I am not trying to generalize my claims on informal mining to all the Global South or even within Latin America, methodologically speaking, comparison at different levels and in relation to common processes of state development allow us to characterize the relationship between informality and state-building processes, and its outcomes. We can give a more comprehensive account of the repertoire of the
“weapons of the weak” (Scott 1985) that is, the alternatives that excluded groups have developed to influence resource regime outcomes and their effectiveness. We are also able to identify the multiple and sometimes contradictory relations of the state with informal groups. Additionally, we have the possibility to contrast the outcomes of state strategies to deal with informality.

My fieldwork in the mining communities took place between 2015 and 2017. This was no easy task as it required building ties with local leaders, miners and community members. The strategies to engage with mining communities were very different according to each context. In Peru, I met several miners in Madre de Dios before I could have any contact with mining leaders. As I will detailed in Paper 3, the impediments to establish bonds with miners are not only geographical – the mining town of Huepetuhe is about three hours from the capital of the region, Puerto Maldonado – but there are also social barriers. Given their peripheral position and the bad reputation, miners are often distrustful of outsiders. Trust seems to be the biggest barrier to increase our knowledge of mining communities and, in general, of marginalized groups. In fact, many of the NGOs, activists and even religious organizations have already abandoned Huepetuhe and other nearby mining towns as they felt in danger or were directly threatened. Being a woman made the challenge bigger, as there are several superstitions in the Andes against female presence in the mines – though women have always worked around them. It took months for me to be seen as a trustworthy outsider, and even after I was able to meet with miners and community members, it took more time to be able to participate in community meetings.

In Tambogrande, Piura the fieldwork was also challenging as informal gold mining development is more recent and miners prefer to work secretly. There is a history of environmental activism in the region so miners now working in Tambogrande fear national
public exposition. Ronderos, local campesino leaders, were also reticent to talk about mining with outsiders as they have been constantly pressured by large-scale mining companies to take their offers and agree to exploit their lands. Only after multiple trips in cart bike and several caballas (a Northern coast fish covered in salt to be preserved), community members and miners were willing to talk. As soon as the voice spread, many miners knocked on my door. I understood then that they always wanted to talk but never felt they had the space to do so.

By contrast, in Bolivia, a country with a history of a more organized civil society, I had several meetings with regional mining leaders and other cooperativist members before I could go visit the mining towns. Once in Santa Rosa, six hours away from La Paz, it took some time to have meaningful conversations with miners and community members. Nonetheless, I faced less resistance than in the Peruvian case, most likely due to the different status of small-scale mining in Bolivia. Although I came with the idea that my previous knowledge on gold mining would facilitate my “entrance” to mining communities, what in reality contributed the most to build ties was my knowledge on the backgrounds of the miners – the history of their hometowns, traditions, food and music. As it is tradition, to every trip, I brought coca leaves and cigars to thank the mine for letting me in.

During fieldwork, my focus was on meaning-making practices, that is, key practices that help people understand and make sense of relationships and social orders (Weeden, 2010). To be precise, I have centered my attention on the relation between miners’ practices – labor regimes, community activities, profit redistribution strategies and local alliances – and systems of signification – namely, resource governance systems. This was a way to reconstruct the value and significance of the current governance systems as well as how priorities around resource governance are set from below. On the other hand, in my papers I
have omitted accounts of other practices such as celebrations, religious ceremonies, rituals and gatherings that, although part of the culture of miners, were not necessarily linked to the governance of the informal mining regime.

Concretely, my fieldwork consisted in following miners in their routines, talking to members of communities where informal mining proliferates, and witnessing spaces of formal and informal interactions between miners, local authorities and community leaders. I have accompanied cooperative miners in their work, to their meetings with their working crew, to their visits to local stores and family land, and to purchase needed implements in nearby cities. I have spoken to socios (partners) of mining cooperatives and associations, land holders, workers and other assistants.

I also participated of communitarian meetings between leaders and members of the affiliated cooperatives in the capital city. In Peru, I talked to members of the National Federation of Artisanal Miners (FENAMARPE), the Mining Federation from Madre de Dios (FEDEMIN) and the National Society of Small-Scale Mining (SONAMIPE). On the other hand, in Bolivia, I worked with the main gold mining federations Federation of Auriferous Mining Cooperatives from Northern La Paz (FECOMAN), the Regional Federation of Auriferous Mining Cooperatives of La Paz (FERRECO) and the National Federation of Mining Cooperativists (FECOMIN). My focus in these sessions was to understand how they coordinate action and what type of interaction they have with local and national authorities.

In order to understand the particularities of informal miners in the selected towns, I also visited and interviewed members from other mining associations and cooperatives in the two countries. In Peru, I talked to mining leaders from associations in Ayacucho and Arequipa, whereas in Bolivia I visited cooperativist miners from Oruro and Potosí.
In total, I conducted 156 interviews and I have surveyed 100 community members, most of them in Spanish but, when needed, I have interviewed people in Quechua to favor spontaneous responses and inclusion of participants who are not native Spanish-speakers.

Studying the state, curiously, was more challenging than studying informal mining. Despite the informal status of the activity, at least at the extraction stage, informal mining had a more or less coherent structure. By contrast, I had to grapple with many strategies and attitudes of the state towards informal mining. To approach these incongruences, I have done a disaggregated study of the state distinguishing between local officials and national authorities. Local officials were also part of the ethnographic studies and treated as participants of the informal extractive regimes. I have interviewed regional governors, mayors and members of regional and local councils. In the case of Piura, I have also traveled with regional authorities to the meetings with the mining associations. Questions to local officials were oriented towards learning their views on national laws and their policy orientation in practice with regards to informal mining.

National authorities’ decisions, on the other hand, were not understood as necessarily linked to the interests of local actors and officials. Their policy preferences were studied independently. I have met in capital cities with former and current representatives of the Ministry of Mines and the Environment, Deputy Ministry of Cooperatives, Deputy Ministry of Culture and members of the cabinet who participated in the draft of the Mining Law in each country or that are implementing the law nowadays. Questions to them sought to understand the rationale of their approach to informal mining.

Additionally, I interviewed other actors from civil society, such as research institutes, academics, activists, former politicians, the church and private sector actors who joined the discussions around the reform of the mining law in each country. In Peru, the Network of
Activists from the San Lorenzo Valley, Red Regional Agua, Desarrollo y Democracia (REDAD), the political party Agro Sí, members of USAID, Red Social, Solidaridad, Save the Children, the Federation of the Tambopata Reserve, Pro Naturaleza, Asociación Huarayo, Agape, Cáritas, scholars from the Catholic University of Peru, Pacífico University, Grupo de Análisis para el Desarrollo (GRADE) and many more. In Bolivia, I talked to scholars from the University of San Simón, San Pablo Catholic Bolivian University and San Andres University. I have also met with experts from the Centro de Estudios Para el Desarrollo Laboral y Agrario (CEDLA), Fundación Jubileo, Cumbre del Sajama, Alianza por una Minería Responsable, Red Nactional Mujeres y Minería, the German Cooperation in Bolivia, the National Association of Medium-Scale Miners, journalists and independent scholars among others. Questions to them helped me to understand the interaction between state and society, to identify sources of tension and to learn about informal environments of interaction and relationship between state authorities and informal groups.

I have kept all the interviews anonymous unless I had permission from the actors interviewed to reveal their names. In the papers, I will identify them only by their role (miner, citizen or official) and a coding number.

My dissertation represents a methodological effort to shed light on the voice of the miners and the political power of informal regimes. Given that my focus has been to identify the sources of strength and resilience of informal mining, particularly in relation to state expansionary efforts, the study has not put emphasis on other problems taking place in mining communities. Although I mention some of these dynamics in the papers, I am leaving aside topics such as the proliferation of bars and brothels, the increase in sexual traffic in some mining towns and side problems with other extractive actors, such as logging and farming companies. The reason is that I believe these issues have been mapped and extensively
developed by state institutions and international agencies, particularly in comparison to the attention informal mining’s institutions have received.

Along with political ethnographies and interviews, I have supplemented my fieldwork with other methodological strategies to better address the specific objectives of each paper. These are explained in the next section where I elaborate on the organization of the dissertation. All the guides for the interviews, ethnographies and surveys can be found in the Appendix section.

1.6 Organization of the dissertation

Although this dissertation is divided into four independent studies, there is an order and a line of argumentation connecting them. Together, these research pieces explore how non-state and non-elite actors in marginalized areas contest the state’s monopoly of resource governance, how their informal institutions interact with state institutions (locally and nationally) and the outcomes of this interaction over national rule.7

Paper 1, “The Struggle for Social Control: The Andean State Versus Organizational Challengers” is where I state my theoretical argument on the challenges that informal resource regimes bring to state expansionary projects. I develop the concept of “organizational challengers” and show how their empowerment presents crucial problems to Andean states. I begin characterizing organizational challengers, their institutions and the

---

7 Since the papers were written as independent studies there is some overlapping information between them, yet each paper answers research different questions.
origins of these competitors in the Andean context. Looking at the development pattern of the state and the type of relationship it has had with peripheral areas, I am able to explain why despite different reforms and state investments, the Andean state still struggles to exert social control. I use the case of informal gold miners in Bolivia and Peru to illustrate how the institutions of the organizational challengers work.

Based on the review of primary sources, such as constitutional articles, amendments to the mining law and supreme decrees regulating informal mining, and interviews with policymakers from the Ministry of Mines and Ministry of the Environment in Bolivia and Peru, this first paper theorizes on what explains the different approaches of Andean states to the activity and their respective outcomes. I argue that the expansion of organizational challengers poses a dual dilemma to the late arrival of the Andean state to peripheral areas – the state cannot ensure both social control and the centralization of resource governance. If, as in the Bolivian case, the state wants to increase its social control, the state has to recognize the socioeconomic contribution of the competitors and give up its aspirations of centralizing resource governance. On the contrary, if the state wants to hold the monopoly on resource governance, as in the Peruvian case, the state has to increase its coercive capacities against miners. This option, however, leads to the clandestine proliferation of miners and it increases the possibilities to see alliances between miners and criminal groups.

The next papers explore the basis of resilience of informal mining. Particular attention is given to the embeddedness and contribution of the activity at the local level.

Paper 2, “Understanding Local Responses to Informal Gold Mining versus Large-Scale Mining. A Case Study from Tambogrande, Peru” co-authored with Marcello Veiga looks at the recent unopposed proliferation of small-scale and artisanal gold mining in towns that previously rejected large-scale mining in Andean countries. Why do locals respond
differently to mining activities at different scales? To explain the basis for opposition or tolerance to mining activities, the paper develops a comparative study of local communities’ perceptions of large-scale mining and small-scale/artisanal gold mining. This paper revisits the case of Tambogrande (Peru) 15 years after the resistance against large-scale mining operations in the light of the recent proliferation of small-scale and artisanal gold mining in the area.

This second paper builds on interviews to local political leaders, members of civil society organization, environmental activists and former local mayors in Tambogrande. In order to increase inferential leverage, I have surveyed 100 community members. Surveys were oriented towards understanding local citizens’ knowledge, proximity and perceptions about informal mining. The paper finds that informal gold mining faces less resistance because it is considered more compatible with the existing social order, which hinges on personal ties and strong relationships of trust. By contrast, large-scale mining is far removed from local dynamics and it is perceived as an imposition that would divide and displace the community. Although economic and environmental factors are in fact a cause for concern for local communities, social considerations usually take priority.

Paper 3, “The Extractivism of the Poor: Gold Mining and the Functioning of Informal Governance Regimes in the Bolivian Highlands and the Peruvian Amazon” justifies the theoretical assumptions from Paper 1 by putting forward a multi-sited ethnographic study that shows the development and functioning of informal redistributive institutions around the extractivism of the poor. Looking into the cases of the largest gold mining communities in Bolivia and Peru – Santa Rosa, rural La Paz and Huepetuhe, Madre de Dios, I focus on what kind of advantage these institutions offer to their members. Through interviews with leaders of gold mining associations and cooperatives working in the mining towns, and workers
engaged with informal mining both directly and indirectly, this study traces meaning-making practices that regulate informal mining. Contrary to studies that see informal mining territories as chaotic and disperse, I argue that informal gold mining communities have clear practices and institutions regulating them, and that it is precisely this order what has allowed them to be resilient over time. I find that key practices from the Andean peasant tradition have over time produced informal governance regimes with unintended effects, such as provision of infrastructure and goods and labor opportunities. In an analysis of the circuits around the extraction of gold, I see how these two effects contribute to upward mobility of groups excluded from the formal market economy.

Paper 4, “With the State Against the State: Informal Gold Miners, State Fragmentation and Resource Governance in Bolivia and Peru” explains why, in the light of two different state control strategies, informal gold miners are able to exert their economic interests in both countries. I outline the conditions and mechanisms through which informal groups with limited funds can impact national resource governance policies in commodity-driven environments. The paper challenges conventional approaches to resource governance that focus on elites and policy makers as the main actors shaping national policy in resource-rich countries. By contrast, I argue that informal miners take advantage of their contribution to the local economy and the fracture between the central state and its peripheral branches to form pressure groups in coalition with local authorities.

By tracing the path of the reform to the mining law in Bolivia and Peru this fourth paper demonstrates how, even in countries where informal miners have no national representation, collective action involving local citizens and local officials allows miners to push their demands from the bottom-up. I use interviews with local and national officials, as well as mining leaders from the main gold mining associations and cooperatives in rural La
Paz (Bolivia) and Madre de Dios (Peru) to show how informal gold miners use their influence on local governments, first, to fend off national regulation and then as a springboard for favorable policy change.

Lastly, in the conclusion I briefly summarize the findings of the four papers and some of the implications they bring to our understanding of state capacities, resource governance and informal institutions. The conclusion also includes a brief section with policy implications and recommendations to improve small-scale and artisanal mining regulation in the Andes.
Chapter 2: PAPER 1. The Struggle for Social Control: The Andean State versus The Organizational Challengers

2.1 Introduction

Never before have Andean states experienced such a sustained growth and expansion as they did over the last 20 years. Empowered by the commodity boom of the 2000s, on average Bolivia’s economy grew 5 percent and Peru’s 6 percent per year (World Bank 2018). Both states took advantage of this favorable economic context to modernize state institutions and fund projects of bureaucratic expansion and modernization. The number of public servants in Bolivia increased from 38,258 in 2001 to 297,039 in 2013 (Soruco 2016), whereas in Peru the increase exceeded 100 percent during the same period (INEI 2015). Modernization in public administration has included the digitalization of a number of public services including tax formalities and bureaucratic paperwork, which are now available online. More importantly, unprecedented investments in public infrastructure and service provision accompanied these processes. From 2004 to 2013, the number of hospitals in Bolivia increased by 46 percent and the number of schools increased by 12 percent (INE 2018), whereas in Peru the increase in the number of hospitals was of 17 percent and the number of schools increased by 25 percent (INEI, 2015).
And yet, these remarkable efforts have not been enough to ensure net state development (Dargent et al. 2017). The Andean state could not translate institutional and physical expansion into an effective increase in its social control of rural and peripheral areas; it still cannot ensure citizens’ subordination to its rules and jurisdictions (Migdal 1988). The state might have gained ground in new areas but its authority as the ultimate rule maker is still put into question. The presence of social forces that although impoverished are able to defy state rules and exert a high level of influence over local communities is emblematic in this sense. Groups such as rondas campesinas (peasant security committees) (Huber 2015), informal gold mining associations (Toledo Orozco and Veiga 2018) and coca leaf growers’ cooperatives (Farthing and Kohl 2010) have openly and successfully contested state attempts to regulate them.

I call these social forces organizational challengers. They are actors that defy state’s social control by means of a competitive system of practices and rules that help citizens in their networks achieving material and immaterial benefits otherwise unattainable. Their emergence is closely related to a rentist economic model, which has historically prevented Andean states from having to turn inwards to support their expansionary projects, thus keeping citizens in faraway areas marginalized from developing opportunities. I argue that state past absence left an organizational vacuum in these zones that has been filled by the development of informal governance systems – that is, a set of institutions establishing practices, rules and duties around the participation and the administration of key goods and natural resources and its associated revenues. These systems directly and indirectly provide infrastructure, security, social mobility, among other important recompenses for vulnerable sectors and the extractive institutions that regulate them are commonly based on longstanding management practices and local knowledges.
I focus on informal gold miners in Bolivia and Peru because as organizational challengers they represent a hard test to state’s expansionary projects. Two factors justify my choice. First, informal gold miners work with resources that are financially crucial for the state’s coffers. Second, given that the activity rarely follows safety procedures and works with very dangerous chemical elements such as mercury, it produces environmental and health-related fallouts, which, cause serious concerns. Yet, after the commodity boom, the number of informal miners rapidly multiplicated reaching now a total mining population of around 350,000 to 500,000 people in Bolivia and Peru (The Artisanal and Small-Scale Mining Knowledge Sharing Archive 2017), signaling that more people are now dependent on informal governance systems.

My study details how the progressive empowerment of organizational challenges has been shaping and limiting the process of state development in the Andes. Locally, informal resource governance systems curtail state’s social control by engaging citizens and local officials in alternative productive networks. The degree of dependence on these systems favors civil and officials’ disobedience to the central state and state fragmentation along the center-periphery cleavage. Nationally, the presence of organizational challengers creates double governance dilemmas to states in expansion – states have to choose between increasing compliance or holding the monopoly of resource governance. If they choose, as in the case of MAS (Movement towards Socialism) party in Bolivia, to acknowledge informal miners’ contribution to marginalized sectors and aiding these groups in exchange for compliance, they end up empowering miners politically and giving them more leverage to bargain for regulatory exemptions. If, on the other hand, the state chooses to exert its monopoly on resource governance by mobilizing its coercive capacities against the challengers, as did successive governments in Peru since the commodity boom, it runs the
risk of cornering miners and triggering their clandestine proliferation into forbidden areas or the formation of alliances between miners and illegal groups.

The paper offers three contributions to literature on state development and resource governance. First, it characterizes an important type of state competitor and its institutions. Drawing on 9 months of original field research between 2015 and 2017 in the largest gold mining communities in rural La Paz, Bolivia and Madre de Dios, Peru, including ethnographic work and 120 interviews to local mining leaders, local authorities and members of surrounding mining communities, I challenge conventional accounts that see areas economically dependent on the informal exchange of commodities as chaotic and informal miners as a product of the commodity boom (De Echave 2016; GIATOC 2016; Dargent et al. 2017). On the contrary, my fieldwork finds that there were pre-boom longstanding institutions regulating informal extractive governance systems, with practices privileging direct redistribution and granting more decisional power to local actors. The commodity boom just consolidated the advantage offered by these informal systems.

Second, the paper presents a novel argument in which state’s limited development capacity is explained through organized contention from below. My study follows a relational perspective on state capacity where states’ expansionary path is analyzed comparatively to its competitors’ development process. By tracing the process of emergence and empowerment of organizational challengers in the Andean context, this paper explains why national-level processes, such as liberalization and decentralization, or costly expansionary efforts have not been able to impact positively the state’s degree of social control. I argue that state’s relative weakness compared to the organizational challengers is shaping the

---

8 Guides for the ethnographic work and interviews can be found in Annex A and B.
trajectory of state expansion. Organizational challengers exploit state’s organizational shortcomings, exacerbate state’s deficits and thus, make it more difficult for the state to increase its social control.

Third, the assessment of how these states are trying to bridge the organizational gap and the outcomes of their strategies sheds light over current challenges faced by developing nations in expansion and it generates important policy implications for resource governance policy makers. Mainly, it highlights the importance of developing organizational capacities in order to address the power of these competitors.

The remaining of the paper is divided into two parts. I begin by defining the concept of organizational challenger and I build on Michael Mann’s concept of infrastructural power to identify state deficiencies and differentiate these actors from other competitors. I then explain the types of institutions regulating organizational challengers’ actions and use the case of the Andean state to theorize the sources of power of organizational challengers and why they have been able to exert social control despite recent state advances. The second part introduces the case of informal gold miners and discusses the strategies and outcomes of state responses in Bolivia and Peru. The paper concludes discussing some inferences and lines of research that the study of organizational challengers suggests.

2.2 Organizational challengers

Though we tend to see state challengers simply as forces detrimental to state development, learning about the competitors’ nature, resources and motivations can be productive to conduct an assessment of the real state of the state. After all, the capacity (or
incapacity) of a state to implement its social policy and to mobilize citizens is contingent, in
great part, on the structure of its society (Migdal 1988: 33). Hence, by dissecting the anatomy
and power of state challengers, we can have a closer look into state capacities from a non-
state perspective. In that sense, my study departs from a conception of challengers that
follows normative assumptions on the desirability of state development. As Eaton (2012:
650) argues, state challengers can be motivated by constructive or destructive impulses, just
as the state’s power can be used for good or for harmful purposes.

Instead, inspired by Migdal (1988), I understand challengers as social organizations
vying for social control, that is, contesters of the rules and jurisdictions of the state. Social
control, according to Migdal, rests on the organizational ability of the state to deliver key
components for citizens’ strategies of survival. High degrees of social control can be reflected
in the level of compliance, participation and legitimacy that citizens grant to the state’s ruling
system (Migdal 1988: 32). Challengers can dispute social control along two dimensions: they
can defy state’s monopoly of violence or state’s monopoly of rulemaking.

These two dimensions of social control are aligned with those present in Mann’s
concept of infrastructural power. According to the author, infrastructural power is the state’s
ability to exert control and to implement policy choices within its territory (Mann 1984).
Unlike traditional assessments of state capacity only looking at one-dimensional
measurements, such as state autonomy (the capacity to lead policies without consulting with
society) or the strength of institutional bodies (the power of bureaucracies to extract revenue,
for example), infrastructural power combines the spatial factor of the state with the relational
nature of its power (Soifer and vom Hau 2008: 222). According to Mann (1986), state’s
ability to penetrate civil society and to implement its actions across its territory is conditional
on both administrative efforts that allow the state to exert territorial control and the organization arising from the relationship between the state and society.

Following the two dimensions of infrastructural power, Eaton (2012) has proposed a division between territorial and organizational challengers. In Latin America, most of us are familiar with the former type of challenger as they are much more notorious. Territorial challengers are non-state groups governing areas where state’s spatial control is weak. They challenge state’s social control by undermining the legitimacy of physical control and often, its monopoly of violence. A fundamental feature of territorial challengers is that their power relies on space rule, hence, they often tend to form self-governing enclaves away from state presence. Their efforts are oriented towards neutralizing state’s power in the territories state officials formally govern (Arjona 2016; Giraudy and Luna 2017). Territorial control can be used for a variety of goals, such as ensuring economic profit as in the case of drug trafficking cartels in Mexico; exerting political control as in the case of FARC in Colombia; or maintaining autonomy as in the case of the Aymara indigenous people living in the frontiers of Southern Peru and Bolivia who resorted to extra-legal mechanisms (strikes and the shutdown of the borders) to defend their right of self-government against the possibility of a mining project in sacred lands (Cavero 2014).

By contrast, I focus on organizational challengers, who have received far less attention. They are non-state actors defying state’s social control with a set of practices different from the official ones. Their presence is less evident and they have been able to stay away from the spotlight, yet their influence can be as powerful as that of territorial challengers. Unlike the latter, organizational challengers can proliferate in areas where the state has physical and institutional presence (Soifer and vom Hau 2008), but where formal institutions are ineffective to address local needs and the state has failed to emerge as the
ultimate authority. Though the power of action of organizational challengers can be enhanced by particular spatial conditions (i.e. marginalized areas or peripheral zones to urban centers), they do not aim to secure the monopoly of territorial control. As Peluso (2018: 405) puts it referring to informal gold mining communities in Indonesia, their governance system is not a case of an *imposition* of control but rather a *contingent* expression of control. Organizational challengers do not need to enforce hegemonic and exclusive territorial sovereignty. They can live side by side with the state and still contest its monopoly over rulemaking.

Defiance from organizational challengers is coordinated among individuals and articulated around an institutionalized alternative to state’s rules. It is therefore different from cases of individual disobedience, such as the subtle forms of contention described by Scott (1985)– e.g. slandering, foot-dragging or faking compliance – and cases of issue-oriented demonstrations against, for instance, a certain policy or government action. What distinguishes individual cases of disobedience from organizational challengers is the presence of a collective and long-lasting system of incentives and rewards that reinforces the pattern of practices followed by organizational challengers.

Criminals cannot be called organizational challengers either. In fact, some of these groups profit from undermining the local social fabric as well as local institutions (Bergman and Whitehead 2009). By contrast, organizational challengers offer a competitive system capable of including and representing social groups that would be in a disadvantaged position under state’s rules. Commonly, organizational challengers tend to be local actors who are better acquainted with the local context than the state. Given their knowledge and capacity to understand local needs, they have the skills to articulate societal groups marginalized from the formal economy or the formal political system, including state and non-state actors. The
systems help excluded groups to achieve material and non-material benefits, such as infrastructure, jobs, order or social mobility. These systems are often far from fair or egalitarian. They are not conflict-free either. On the contrary, given their informal and “underground” character, they tend to offer unequal benefits. The system, however, does not need to be optimal or even offer great rewards to be attractive – it just needs to offer a way out, a development opportunity, to excluded populations.

### 2.3 Organizational challengers and informal institutions

Part of the difficulty to identify organizational challenges is that their path of action can vary widely. They can act either to bridge or to fully replace state rules with informal institutions. Taking cue from the literature on informal institutions, I would say that organizational challengers could act through substitutive or competing informal institutions (Helmke and Levitsky 2004). They can work with substitutive institutions when their system of rules and practices can seek outcomes compatible with formal rules. In other words, they can be performing functions that formal institutions fail to carry out. This is the case of *rondas campesinas*, patrol groups, in Northern Peru. *Rondas campesinas* were communities that preserved their peasant institutions with rules and key practices to elect their leaders, make communitarian decisions and govern their land. Feeling unprotected by the state, in the 1970s these communities also added to their traditional practices a code of rules to punish offenders (Huber 2015). This system became well known for being more reliable than the police and very effective in the reduction of local delinquency.

Organizational challengers can also work with competing informal institutions in cases where their goals are incompatible with those of formal institutions. Institutions are
competing when following one set of rules means to violate another (Helmke and Levitsky 2004). This type of institutions can emerge when formal institutions’ goals do not mirror those of the local population. For example, in the case of informal gold miners discussed in this paper, local communities prefer a resource governance system that grants them direct benefits and power of decision over resource administration in striking contrast to the state’s centralized model of resource governance, where the central state decides alone who is able to exploit natural resources and how revenue is allocated. Often, competing informal institutions are associated to normatively negative and particularistic practices, such as corruption and clientelism. However, reality is much more complicated, as competing informal institutions can also serve collective goals that are being trumped by imposed formal institutions.

As a matter of fact, it can also be the case that the institutions of the organizational challengers temporally preceded those of the state. In these situations, state’s formal institutions are actually the ones imposed over local groups, thus creating conflictive situations of simultaneous systems of rules and practices. The clash, explain Helmke and Levitsky (2004), often leads to the violation of state rules. I argue that this also the case of informal gold miners in the Andes and of other groups working with key resources such as coca leaf producers, whose practices are rooted in the Andean peasant tradition. Given their longevity and effectiveness in articulating local communities – providing jobs, maintaining traditions and ensuring security for its members – the institutions of coca leaf cooperatives for instance, are seen as more trustworthy than the state’s by local citizens (Farthing and Kohl 2010). Hence, it is no surprise that local communities choose to follow the practices of informal institutions around coca leaf instead of those of the state. In substitutive and more
evidently in the case of competing institutions, organizational challengers end up weakening compliance to state rules and consequently, they limit state’s social control.

2.4 The Andean state and the problem of organizational capacity: national changes and local continuities

Behind the state’s problems of social control, there are institutional development features at work. To assess the path of state development in the Andes I work with a relational perspective that looks at state’s trajectory relative to that of its competitors. Here, I follow classic studies of commodity dependent economies looking at political arrangements (Karl 1997; Ross 2001) and recent studies looking at state-society relations pre-boom (Kurtz 2013; Saylor, 2014; Dargent et al. 2017) to assess how these conditions shaped state development. In the case of the Andean state, choices made by state authorities since the colonial times marked the development path of the state towards rentism, which relicted state-society relations to a secondary role. This development pattern based on the accumulation of capital through rents (as opposed to commodity production) allowed the state to grow without having to integrate society in its expansionary project. Rentism created a gap between state-society that hindered state’s infrastructural power and left space for the continuity of already existing alternative organizational systems and the emergence of new ones. It is important to highlight here that throughout the history of the Andean state important national transformations were successful in advancing its territorial expansion but incapable of (and uninterested in) addressing the relational dimension of infrastructural power.
In a seminal text on state-building in Latin America, Centeno (2002) explains that emerging states in the late 18th century did not need to turn inward to meet the financial challenges of state development. Unlike the European case, crucial moments for state capacity-building such as wartimes did not push states to centralize authority, enhance its extractive capacities and develop strong bureaucracies (Tilly 1990). Instead, Latin American and, in particular, the resource-rich states in the Andes relied on royalties and exports to finance warfare. The reasons, argues Centeno, have to do partially with institutional capacities – a lack of large administrative and coercive apparatuses to enhance fiscal extraction – and partially with state-society relations, as local elites did not see war as a threat to their position in society and consequently they were not interested in financing it.

The rentist character of the state remained in place after the wars. Given the abundance of resources – mainly, silver, copper, gold and tin in Bolivia and Peru – states could fund their developmental projects without having to engage the population, working on neutralizing local rivalries or forming nationwide integrative projects, as in the European case (Tilly 1985). The Andean state ruled from urban centers and turned its back on the masses who were mostly concentrated in rural areas. Development for the Andean state meant for the most part the expansion of its bureaucracies and financial bases through rents. Export activities were primarily organized around enclaves, haciendas (large landed estates) and fincas (plantations) led by barons, transnational companies and landowners which replaced the state’s provision and organizational duties over rural sectors. As Conaghan and Malloy (1994: 18) explain, not only this kept a structural heterogeneity in the economies, but it also reinforced the deep regional, cultural and ethnical cleavages of Andean societies.

Though marginalization prevented the masses from accessing basic rights and contributed to social fragmentation, exclusion also allowed space for the continuity of
indigenous and *campesino* institutions. By having very limited interaction with urban centers, local populations could keep varying levels of autonomy to the point of becoming, in several cases, unchallenged areas (Yashar 2005). I argue that marginalization allowed the development of a comparative (and for a long time, uncontested) advantage of local organizational challengers over the state. It allowed for practices, networks and the local governance systems to remain in place as the main (and often only) strategies for the survival and organization of excluded groups. In places where the state did not feel compelled to impose order, territories remained governed through specific production practices associated to labor, resource management and local knowledges (Peluso 2018). Put it simply, while these communities were excluded from national-state projects, they were included in local governance systems.

There have been, of course, many attempts to revert exclusionary patterns of state-society relations in the region. Perhaps the most important one was the wave of state incorporation that took place during the early and mid-20th century to address societal demands. Incorporation resulted in the extension of rights – the establishment of universal suffrage, the recognition of unions and of political representation of labor movements (Collier and Collier 1991). In Bolivia and Peru specifically, the Revolutionary Nationalist Movement (MNR in Spanish) from 1952 and the Revolutionary Government of the Armed Forces from 1968, respectively, looked to transform society by including masses along class lines. Although successful in achieving the inclusion of *campesino* and workers to the political life, these projects never fully reverted the organizational advantage of local competitors in peripheral areas. The state managed to include actors to the national political scene, but not to fully penetrate the lives of the people living in peripheral areas. Locally, informal governance systems were still ruling and organizing society.
In the Andean case, informal extractive institutions – unwritten rules and practices setting the priorities, shaping expectations between actors and regularizing the management strategies of natural resource and its benefits for an enclosed group – acquired prominence. Informal extractive institutions responded better than state-led ones to local needs, while also granting more decision-making power to local actors. They compensated for many of the basic problems of marginalized communities, such as infrastructure and job opportunities. Rather than following modern labor divisions (according to expertise) like private companies, extractive informal institutions prioritize the hiring of people and local citizens within their close circles. This meant that a wide range of people – many of them, unskilled labor force – could take part in the networks, including local authorities who, despite their position, were as marginal in resource governance decisions of the central state as the rest of local citizens. The high inclusionary power of these institutions contributed to make informal resource governance systems indispensable for the lives of local citizens.

Regional sweeping changes in the 1980s and 1990s – especially the processes of economic liberalization and decentralization – could not overturn state-society relations completely but ended up reaffirming the historical pattern described thus far and made it even harder for states to develop infrastructural capacities. Economic liberalization, which aimed to enhance the efficiency of the state by limiting its responsibilities, in practice reduced the scope of action of the state (Silva 2009). Structural adjustments and austerity policies led to cuts in social programs which further worsened the condition of people living in the periphery. Without state support, the number of people relying on informal institutions and local networks rapidly increased. Also, with the reduction of state capacities, the state gave away several of its resource governance competences to the market (Yashar 2005). Andean states privatized many extractive companies and focused on attracting foreign investment by
reducing regulations to extractive operations. The withdrawal of the state favored organizational challengers working with key commodities, who then faced less state presence locally and less legal restrictions.

Paradoxically, also decentralization made it more difficult for the state to expand its organizational capacities. In the context of the return of democracy in the 1980s, it was expected that decentralization processes were to increase state’s power of reach through the empowerment of subnational state institutions and improve state-society relations by favoring citizens’ political participation (Mainwaring et al. 2006). Devolution processes, however, had a mixed record. The transference of administrative and fiscal competences to local governments indeed strengthened subnational institutions with decision-power capacities over resource administration and increased the participation of previously marginalized groups (Van Cott 2008). Decentralization processes also coincided with the commodity boom from the 2000s, which allowed states to fund this process and support it with strong investments in infrastructure and bureaucracy. Thus, the state was able to successfully extend its physical presence through the expansion of its bureaucratic bodies and the implementation of new local services and offices in peripheral areas.

At the same time, central state’s weak efforts to coordinate with subnational authorities curtailed if not defeated the overall impact of decentralization on state’s power. Lack of coordination and cooperation negatively impacted the capacity of the state to implement policies – it generated state incoherence, overlapping in several tasks, and triggered defiance of subnational authorities to central state’s mandates (O’Neill 2005). As a result, decentralization allowed for the rise of new voices, but it did not provide a solution to fragmentation. Subnational transference of decision-making competences around resource
administration also favored organizational challengers, especially considering their influence at the local level and the communication problems between state bodies.

National-level transformations in the region then were not able to interrupt or break local-level continuities. By contrast, organizational challengers – already present before these changes – have been able to consolidate their power thanks to state fragmentation. Benefitted by the commodity boom, organizational challengers could rapidly grow in number and in scope of action. Thus, they could also extend the benefits provided, as informal extractive institutions could also now enable social mobility, otherwise unreachable to participants through formal institutions. This involuntary outcome of extractive institutions made them a resilient development alternative for peripheral groups.

2.5 A brief history of the origins and expansion of the extractivism of the poor

Small-scale and artisanal mining is a labor-intensive activity that relies on rudimentary techniques and procedures, and very modest economic investment to extract minerals. The minimal infrastructure required makes it viable in remote and rural areas where other industries cannot operate. In Bolivia and Peru, metallurgic work dates from 200 BC (Samané Boggio 1994). Small-scale and artisanal gold mining was and still is one of the main alternatives to complement farming, harvesting and other formal and informal productive activities carried out by Andean communities (Flores Galindo 1974; Dewind 1975; Nash 1979; Klein 2008). Mining is part of the campesino economy – a family-based form of land and resource administration aimed at both production and self-consumption. According to
Plaza (1987), what is particular of the Andean campesino economy is that, although it has great influence over the choice of activities (campesinos choose the best productive activity in relation to market prices and the season), the market does not fully determine the character of all the social relations involved in the acquisition or production of services and goods. People within campesino economies are often organized around communal lines – they are generally risk-averse and always prioritizing the benefit of their close circles. Although this logic of action can produce suboptimal outcomes and negatively influence the production of goods, it is a safe way to ensure the protection of families in contexts of uncertainty and limited economic resources.

In the young republics of Bolivia and Peru, between 1920 and 1930 mining workers became politically active and acquired great power of mobilization. Although to different degrees, in both countries the miners were able to organize and lead massive strikes against mining barons and the exploitation of mining companies (Dewind 1975; Nash 1979; Zapata 2002). The fact that most of the miners were also campesinos and often indigenous meant that they frequently shared routines and practices that belong to the campesino economy (Barrios de Chungara and Viezzer 1978). Their shared identity, along with the fact that they suffered from common abuses by landowners and mining companies, contributed to the development of a collective action capacity that rapidly expanded to other rural areas as miners’ leadership consolidated (Flores Galindo 1974; Zavaleta 1978).

In 1944, Bolivian miners founded their own national federation with the aim of leading a political movement that could transform the country (Partido Obrero Revolucionario 1946). In 1952, miners in alliance with the MNR became key figures in a revolution that, as explained above, changed all the structure of the country and granted miners great political power (Dunkerley 1984). Whereas the mining movement in Peru could
not reach this level of influence, mining unions’ mobilizations in the highlands and Southern Peru became one of the biggest threats to oligarchical rule during the same decades (Sulmont 1980, 1985). Later, when a revolutionary military government took power in Peru in 1968 and nationalized mines, miners could reap the benefits of social and economic reforms (Dore 1988). While in times of economic bonanza and democratic opening miners in both countries used their collective power to mobilize, push their agenda and negotiate better working and living conditions for their communities, in times of economic crises and military repression, they would always turn to agriculture-related activities or informal mining to survive (Lora 1979; Pachas 2011). Thus, in the mid-seventies and eighties, when financial collapses and political violence forced mining workers to disperse and hide – making collective action more difficult – some migrated to urban areas while others joined rural communities (Zapata 1980; Malloy and Gamarra 1988).

Adjustment policies in the 1980s and 1990s sped up the process of scattering by shutting down state mining companies and eliminating subsidies in the agricultural sector, which left miners with no job prospects. Facing the lack of opportunities, great part of this unemployed mass turned to small-scale and artisanal mining as a more stable source of income (Pachas 2011; Poveda 2014). Mining communities searched for rich gold deposits to settle. The activity expanded considerably all over the territory and miners became independent workers – i.e. informal miners. Two facts favored this change. In Peru, new legislation aiming to create the conditions to favor large-scale mining investment did not consider the existence of different types and scales of mining, which contributed to the unrestricted appropriation of abandoned deposits by informal miners (De Echave 2016). In Bolivia, a state in crisis ceded national mines and other abandoned deposits to mining
cooperatives, which gave formerly employed miners the possibility to work independently (Espinoza Morales 2010).

Both a substantive expansion of the informal economic sector and an extension of the informal practices and rules governing in local Andean communities consolidated around this time as campesino communities migrated to urban areas and expanded their networks to new rural spaces, reproducing the campesino economy logic in different regions (Matos Mar 1987). Thus, the growth of informal economies was permeated by important elements of the Andean world, as the mass still relied on the campesino institutions to carry out their different activities (Mitre 2002). For example, collective strategies were used to mitigate limited resources. Informal miners organized in cooperatives and associations to share the investment costs and share the burdens associated with mining. As profits were not high, these communities continued to alternate mining with other campesino activities and kept replicating several of their traditional practices (Zapata 2002; Pachas 2011). As mining became once again integrated into the multiple productive activities of campesinos, miners were able to rebuild their collective power.

By the early 2000s, when gold prices peaked, gold deposits became mining clusters. Despite their precarious situation, the boom found miners with an advanced level of territorial control and power (Poveda et al. 2015; Damonte 2016). Currently, informal mining – gold mining in particular – is present in both the highlands and rainforest of the two countries. In Bolivia, it is the third employment-generating activity and in Peru it is present in 20 of the 25 regions (INE 2018; De Echave 2016). As showed in Figure 2, when gold prices increased, so did the number of actors in the value chain – miners, investors, collectors, buyers, processors and exporters – and the power of the informal governance systems. This only made regulation more challenging.
2.6 The governance systems of small-scale and artisanal mining and their socioeconomic effects

Authors studying the recent expansion of informal miners and states’ inability to regulate them have argued that miners are an unexpected outcome of the commodity boom (De Echave 2016; GIATOC 2016; Dargent et al. 2017). In these accounts, informal miners along with mafias, car thefts, criminals and contrabandists are groups that expanded attracted by the economic growth. Due to the proliferation, dispersion and chaotic environments
around mining, the expectation is that it will be very difficult for the state to regulate miners. Yet, a study of the pre-boom conditions shows that in fact they have been present for a long time in marginalized areas. Moreover, they are far from being disorganized, as there is a local structure that has been ensuring their continuity. It is precisely the fact that the state has ignored the areas where miners proliferate what has enabled the development and consolidation of informal governance systems.

Let us zoom-in on the largest gold mining communities in the Andes since 1980 – rural La Paz, Bolivia with 110 cooperatives, 5100 members (plus assistants) and Madre de Dios, Peru with between 30,000 to 100,000 miners (SPDA 2015; Viceministerio de Cooperativas 2016). They are an illustrative case of organizational challengers because they have a consolidated governance system that articulates local actors socially and economically. This system is supported by extractive institutions with practices and material contributions that legitimize labor relations, land usage and tenancy.

As explained in the previous section, due to its rural origins, the extractivism of the poor follows the logic of campesino economy and as such, its practices are oriented towards mitigating the risks of mining and redistributing the benefits of the activity within close circles. I have identified three key practices that are part of the core of the governance systems around the extractivism of the poor: cooperation, direct negotiation between miners and local communities, and the preservation of local ties and other agrarian activities. Ethnographic studies on mining in Bolivia and Peru agree on the vital importance of these practices (Mannheim 1986; Mayer 2002; De la Cadena 2010, Pachas 2011; Canaviri 2015, Tassi and Canaviri 2015; Toledo Orozco and Veiga 2018) and contemporary literature on campesino institutions looking at the exchange of other commodities in the Andean region, such as
quinoa and coca leaf, have also recognized these as practices resilient to the expansion of the global market (McNeish 2002; Walsh-Dilley 2013).

In essence, artisanal miners’ extractive institutions contest the centralization of decision-making processes around resource governance and the administration of the paybacks from the activity in the hands of the central state. They do so by producing important economic and social returns for the surrounding communities and granting more decisional power to local actors. Four examples illustrate how they do so. First, basic infrastructure and services are necessary for the beginning of mining operations and they concomitantly benefit local communities. Miners in rural La Paz have opened and paved roads, which are meant to help them access the deposits but also end up facilitating mobility in previously isolated local communities, such as Santa Rosa in the Sud Yungas province. Likewise, miners in Madre de Dios have brought with them resources like electricity to mining towns such as Huepetuhe in the Manu province. Mosquera et al. (2009) argue that even activities that are apparently in contradiction with extractivism, such as ecotourism, have also benefited from the opening of new routes in Madre de Dios.

Second, cooperation between miners and community leaders produces targeted benefits, such as miners’ sponsorship of local events, or the construction and maintenance of public infrastructure (Canaviri 2015). In the community of Santa Rosa in rural La Paz for example, cooperativists have to share their labor force during sowing times with the local community and contribute with seeds. They also have to supply labor force for the maintenance of the local community center. These activities are part of community agreements. Likewise, municipal ads in Huepetuhe and Delta thank miners for their help and statues of miners are built to honor their contribution to local development. Miners in Madre
de Dios are also one of the main sponsors of the Amazonian festivity of San Juan, while in La Paz miners fund Andean harvesting festivities, such as the Anata and Ch’alla.

Third, the preference for direct negotiations in informal extractive institutions leads to land tenancy agreements that allow communities to access more benefits. Often, communities in the Andes do not have formal land titles, and when they do, they are only certificates of possession (De Soto 2000). In this context, informal land tenancy agreements between miners and community leaders have become common currency. These can take highly structured forms, as in rural La Paz, where communities vote and, if the outcome is positive, they settle for an allowance. Land tenancy agreements can also have a loose structure, as in Madre de Dios, where payments are most commonly negotiated between mining associations or individuals and landowners, but where miners offer communitarian benefits in times of bonanza. Communities negotiate tenancy in exchange for rents, participation in mining activities as socios (partners) or the hiring of relatives and local actors as labor force. Participation in mining activities is usually preferred as it allows landowners more possibilities to profit and their sole presence reinforces miners’ compliance. Landowners rarely sell their lands because, aside from not owning the legal titles, tenancy grants them leverage to negotiate future benefits associated with gold prices.

State mediation is only requested in cases where there has been a violation of the agreements and, even then, only a minority relies on state authorities to solve disputes. Interviews with members of communities in both regions showed that often they refrained from publicly accusing miners in case of conflicts because they either fear retaliation – in cases where there are powerful mining associations involved – but, most commonly, because community members are participant of mining activities directly – working in the gold deposits – or indirectly – allowing extraction, amalgamations (the addition of mercury to
gold ores) and mercury burning within their territories. Instead, community members usually opt for renegotiating the terms of the agreements even if it leaves them in a disadvantaged position.

Fourth, communities also gain indirectly from the provision of benefits arising from the economic circuits around mining and the creation of new markets. In the last two decades, informal mining contributed to almost 30 percent of the Gross Domestic Product of the region of La Paz and 40 percent in the case of Madre de Dios (INE 2018; *El Comercio* 2018). This growth came with an increase in access to food, clothes, phones and more. Where small-scale and artisanal mining is recognized, as in Bolivia, locals also benefit from a 2 percent of revenues destined for provincial municipalities to spend in public investment.

Though material benefits are important in peripheral and precarious environments, benefits from labor opportunities are the ones that probably contribute the most to the continuity of the informal governance systems, as they help marginalized sectors to build both material and social capital. Informal extractive institutions prefer hiring members of close circles over experts. Working with trusted people is a way for miners to appease community needs and demands, and to ensure the benefits of mining are redistributed locally. Mining workers in rural La Paz and Madre de Dios include young, adults and women starting from 15 and 16 years old (Aranibal et al. 2018; Pachas 2011). Workers usually start as labor force making between 300 and 600 USD a month in Bolivia, and between 160 and 500 USD in Peru (estimations done at the time of my fieldwork). As they learn to pan, to handle sucking machinery and drilling techniques – depending on the deposits – they negotiate better wages or offer their services to other mining camps. Practical knowledge, specialization on a particular technique and capital helps them to ascend in the regime networks, going from assistants to miners or to *socios* (partners in the associations or cooperatives).
As these institutions mainly rely on local production for implements and services, the extractivism of the poor also contributes to the social mobility of the people surrounding mining camps. Members of the community that traditionally have a hard time finding a job, such as adult women, can ascend by being hired by the mining association, or by providing miners with services such as food, transportation or laundry. Part of mining profit is commonly reinvested in other local activities – often in agriculture, cattle or commerce – that can provide income during raining times when mining is not possible and where other members of the family can work (Canaviri 2015). This social ascent has an important local impact. Between 2007 and 2016, Madre de Dios was one the regions that experienced the most radical reduction of poverty in the country going from almost 14 percent to almost 3 percent and ranking within the regions with lower levels of inequality (INEI 2017). The case of La Paz is even more striking. Whereas in urban areas poverty incremented (due to migration), in rural areas extreme poverty decreased by almost 30 percent (INE 2018). Moreover, migration from rural areas with mining activities to urban areas has considerably decreased (Canaviri 2015).

While for adults informal mining can be a vital source of income (and economic independence, in the case of women), for most young miners the activity is only a seasonal option useful to learn mining-related skills or to fund other entrepreneurship (Aranibal et al. 2017). Often, new businesses funded by informal mining are oriented towards satisfying the needs of the mining workforce. In Madre de Dios for example, local hardware stores, gas stations, gold stores have proliferated, along with other businesses indirectly benefiting from the activity, such as restaurants, public showers, bars, corner stores, internet cafes and public phones. Likewise, in rural La Paz miners are the main actors supporting local businesses. Small cash transfer businesses that deliver small amounts of money to neighboring areas are
very common in mining towns. These allow the circulation of wealth to neighboring towns. Regardless of whether a local citizen has interest in mining, it is often in that person’s interest to join mining networks to gain access to basic services, increase his labor opportunities and have chances of social mobility.

2.6.1 Political influence

Just as the central state has used the commodity boom to expand its presence nationally, the bonanza has helped informal governance systems to expand theirs. Informal mining grew economically – miners were able to increase their production, hire more people and bring more indirect benefits to surrounding communities. The institutions regulating informal mining developed the largest inclusionary networks in places such as rural La Paz and Madre de Dios, where local authorities are unable to provide welfare for most of the local population. The high level of dependence on informal mining has translated into popular support, which grants miners and their informal systems political power. In particular, it has granted miners mobilizational capacity of the popular sector benefitting from mining, and institutional backing – i.e. local official’s adhesion to the informal mining project – which gives miners leverage to influence political outcomes even beyond the local level.

In Bolivia, when the new mining law seeking to exert more control over informal mining was discussed in 2009, local authorities sided with miners at the roundtables (Okada 2016). In Peru, local officials joined all the demonstrations and signed petitions against state efforts to formalize informal mining in 2010. In fact, every attempt at state control was confronted with defiant authorities or with the proposal of alternative regulatory schemes that favored the autonomy of informal mining (Inforegión 2013). Strong mobilizations and the
support of local officials contributed in both cases to derogate regulatory efforts and ultimately, shaped policy results towards outcomes more convenient for miners. In Bolivia, the government expanded mining access areas and increased the budget for credit and training available for miners (Página Siete 2014), whereas in Peru the government ended up derogating criminal decrees persecuting miners and, for the first time in its history, meeting with mining federations to restructure the process of formalization (Peru21, 2018).

2.7 State strategies and outcomes

The empowerment of organizational challengers, their competition over social control, and the question of how to secure their compliance pose a dilemma to the Andean state. Whereas in the past laissez-faire was the main policy, the development of Andean states and the magnitude of the informal mining problem have prompted them to act upon local competitors. States have adopted two different strategies to address this question: to recognize or to coerce organizational challengers. Contrary to expectations, these choices have less to do with state capacities and more with conceptions of the role the state should take vis-à-vis society. Different ethea imply different models of state-society relations and different strategies to address the problem of organizational challengers.

In Bolivia, the state has opted to recognizing and relying on the institutions of organizational challengers in order to try to extend its reach into marginalized areas and legitimize such efforts (Mayorga 2007). The central state validates small-scale and artisanal mining as an activity that has fulfilled welfare obligations the state could not meet. In order to obtain compliance, it also supports socially and financially the small-scale and artisanal mining sector as a way to gain legitimacy. The Constitution of the Plurinational State of
Bolivia, reformed under the MAS leader Evo Morales (2006-2019), acknowledges that the country’s economic model has different forms of economic organization: communitarian, state, private and social cooperativist (art. 306). It also recognizes the influence and the comparative advantage of mining cooperatives to provide employment and revenues. Article 130 describes cooperativist mining as a form of solidarity, supportive and non-profit work. More importantly, Bolivian law acknowledges its historical role, its contribution to society and it guarantees cooperative mining preferential benefits (Constitución Política del Estado Plurinacional de Bolivia 2009). These mandates allude to the transcendental role of cooperatives as a key poverty alleviator during past economic crises.

In practice, this recognition has translated into guaranteeing spaces for political participation to cooperativists, granting them concessions and developing state institutions targeting the mining sector. Politically speaking, miners have corporatist representation at the departmental and municipal assemblies; they have representatives in the executive through the vice-ministry of cooperatives and in the legislative assembly, where they currently have 12 elected representatives. Additionally, it is common for ministers of mines or representatives from The Mining Corporation of Bolivia (COMIBOL) – the state mining company – to have a professional trajectory linked to cooperatives. In terms of allowances and institutions, according to the Labor Law, COMIBOL had to enable mining concessions and machinery for cooperatives (Supreme decree 20117). Miners have tax exemptions, a Fund for Stabilization created to mitigate the losses of cooperatives when production costs are higher than mineral prices (Supreme decree 29769), a Center for Cooperativist Mining Commercialization (COMEREMIN) to help them get the best prices in the market, a National Service for Registering and Monitoring the Commercialization of Minerals and Metals (SENARECOM) which administrates new mining concessions, and a Jurisdictional
Administrative Mining Authority (AJAM) which offers funds to aid miners with credit and training.

The results of this approach are mixed. On the one hand, the strategy has worked as a means to extend the state’s reach in previously excluded areas. By granting political representation, the state is able to use the miners’ networks to build infrastructural power – it can access detailed information on the demography, production and supply chain circuits, a very difficult task when it comes to informal activities. The quality of the information, however, depends in great part of what miners are willing to declare. Also, integration helps to inform, socialize, debate and negotiate even the most challenging reforms with the members of this sectors and obtain agreed-upon policy outcomes. As showed in Table 2, the state negotiates with miners both benefits and obligations. For instance, the Mining Law of 2014 was not implemented before obtaining the consensus of the cooperativists who negotiated low tax rates but settled for not having private international partners and taxing newcomers at a higher rate (Okada 2016).

On the other hand, state recognition of an organizational challenger further empowers the competitor, both politically and economically. This is very clear during electoral times, when miners negotiate their support. Cooperativists are currently one of the most important constituencies of the government party Movement towards Socialism (MAS) (Farthing and Kohl 2014), which has allowed them to grow during the mining boom with the least possible restrictions (Mayorga 2011; Poveda 2014). Miners take advantage of key political moments – such as election times – to bargain as an interest group and avoid policies affecting their interests. Their leverage has also contributed to grant them impunity. While they are now registered with the state and endowed with preferential benefits, locally, their mining, labor and commercialization practices follow no state supervision or sanction. Neither do they
comply with any environmental standard. On the contrary, state support has served to legitimize the continuity of their informal mining practices.

Moreover, in August of 2016, when the Bolivian state attempted to reform the Law of Cooperatives to grant workers within cooperatives the right to unionize, miners organized a series of acts against the reform. In the middle of the conflict, 100 policemen were injured, and 10 miners were arrested. In its worst moment, miners from Panduro (La Paz) kidnapped and killed the Deputy Minister of Internal Affairs Rodolfo Illanes, who went to the area to find an agreement (La Razón 2016). At the end, five miners were tried, found guilty, and incarcerated but the bill did not pass.

Table 2 Summary of mining laws for cooperatives negotiated between miners and the state during the MAS administration in Bolivia (2006-2013)

<table>
<thead>
<tr>
<th>Law number/ Supreme Decree (SD)</th>
<th>Date</th>
<th>Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD 28901</td>
<td>10/31/2006</td>
<td>Renationalization of the Huanuni mine (Oruro) and renegotiation with mining state workers and mining cooperatives.</td>
</tr>
<tr>
<td>SD 29108</td>
<td>04/25/2007</td>
<td>Amendments to Law for Cooperatives: Recognition of cooperatives’ legal persons, approval of cooperatives’ own statutes. The state also commits to guarantee support, supervision and guidance to cooperatives, monitor appropriate functioning of cooperatives and to create a national register office for cooperatives.</td>
</tr>
<tr>
<td>Law number/ Supreme Decree (SD)</td>
<td>Date</td>
<td>Issue</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>SD 29165</td>
<td>06/13/2007</td>
<td>Creation of SENARECOM</td>
</tr>
<tr>
<td>Law 3725</td>
<td>08/03/2007</td>
<td>Reduction of legal age for miners working in hazardous conditions to access social security and pension plans.</td>
</tr>
<tr>
<td>DS 29410</td>
<td>01/09/2008</td>
<td>Areas that are not of interests of COMIBOL will be given in concession to mining cooperatives.</td>
</tr>
<tr>
<td>DS 29537</td>
<td>05/01/2008</td>
<td>Modifications to the pension plan rules and requirements for miners (state workers and cooperatives).</td>
</tr>
<tr>
<td>DS 29577</td>
<td>05/21/2008</td>
<td>Rules for the payment of mining revenues.</td>
</tr>
<tr>
<td>DS 29655</td>
<td>07/30/2008</td>
<td>Restructuration and increase in the budget of the Fund for Mining Financing (FOFIM).</td>
</tr>
<tr>
<td>Ley 4049</td>
<td>7/07/2008</td>
<td>Reduction of the mining royalty (from 7 to 5 percent) to mines that require high technology for their production. A similar reduction (from 2.5 to 1.5 percent) applies to marginal deposits operated by artisanal miners.</td>
</tr>
<tr>
<td>Ley 186</td>
<td>2011/11/11</td>
<td>Reduction of tax of the Tax to Added Value to favor domestic commerce of production coming from mining cooperatives and artisanal miners.</td>
</tr>
<tr>
<td>Ley 356</td>
<td>04/11/2013</td>
<td>General Law for Cooperatives</td>
</tr>
</tbody>
</table>

Source: Table built with data from Poveda (2014) and information from the Deputy Ministry of Cooperatives.

By contrast, the Peruvian state under Alejandro Toledo (2001-2006), Alan García (2006-2011) and Ollanta Humala (2011-2016) has opted to assert its monopoly over resource
governance by confronting organizational challengers. The state condemns informal mining in almost all the cases and establishes great restrictions for its proliferation, looking to weaken the activity and regain complete control over mining areas. Until the 1979 Constitution, the Peruvian state stipulated the protection and promotion of mining at all scales. The 1993 Constitution, however, established that the state only promotes large-scale mining businesses. Although this was later edited (Law 27651), the same pro-large-scale business spirit prevailed in lawmaking. Small-scale mining is only valuable if it becomes a formal business with the same legal attributes as large-scale mining (Ley General de Minería, IV). Successive legislative acts written during the mining boom were oriented towards restricting informal mining’s expansion and portraying it as a tax evading activity with tremendous social and environmental risks (Supreme decree 012-2009). Between 2011 to 2014, executive decrees reiterated the necessity to fight against informal mining by increasing the requirements for its formalization and by organizing interdictions (Supreme decree 029-2014). Small-scale mining is labeled as informal when it does not have state permission to operate and illegal or criminal when it works in forbidden areas.

This legislation has translated into state efforts to increase its coercive capacities and put forward control operations. The state has assigned an important number of its institutions and funds to execute the decrees of interdiction. A high commission was created to work with new regional and local state dependencies to coordinate surprise military operations that included the burning of mining camps, and the detention and requisition of mining machinery. 1097 investigation files against informal miners were opened, and 236 interdictions took place between 2014 and 2017 with an overall cost of US$ 53 million. This amount was nine times the budget destined to formalization and twelve times the budget destined to promote social development in Madre Dios (La República 2018). Similar
operations and interdictions took place in 2019 with 1500 policemen and military, with a budget of US$ 61 million (Andina 2019). Businesses associated to informal mining were also punished indiscriminately. Some linked to illegal activities, such as mercury and fuel sellers, and owners of brothels accused of sexual trafficking were closed, but also were other harmless businesses that emerged in nearby mining town, such as restaurants, gold stores, hardware stores and other informal traders.

**Figure 3 Interdictions and deforestation in Madre de Dios (Peru)**

The outcomes of this approach were mostly negative. The strategy did not lead to an increase of the infrastructural power of the state. On the contrary, it created additional obligations and problems for the state to reach marginalized sectors. As in Figure 3 shows,
informal mining continued expanding and generating deforestation despite the interdictions. The few miners that attempted to formalize their activities faced a burdensome bureaucracy and difficult requirements to do so. Less than 5 percent of informal miners formalized their activities by the end of 2017 (La República 2018). Worse, the use of the labels “illegal” and “criminal” forced miners to hide and move their activity into natural reserves and other forbidden areas (Damonte 2016), leading to violent conflicts for land access that harmed indigenous populations. The regional conflicts emerging from the interdictions were that harmful that a group of authorities, environmentalists and priests went to Congress in 2014 asking the state to stop these military operations as they were generating violence and targeting the poorest sectors (Vasquez 2019). This strategy also favored the development of ties between miners and criminal groups that became sources of capital for them (MINAM 2016).

Stigmatization and the continuation of political exclusion were not useful either, as they favored polarization and contributed to the development of counterstrategies to derogate resource regulatory policies. Given that policymaking targeting informal mining is not agreed upon, outcomes are often disregarded. Aware of mining’s contribution to the local economy, the number of voters that depend on the activity and often, the inadequacy of the policies to the local context, local officials commonly tolerate informal mining (Peru21 2012). Using massive mobilizations and banking on their alliance with local officials, miners have looked to expose the state bureaucracy’s lack of knowledge of the field and faults in the legislation. This was the case during the discussion of the Formalization Law in 2010 when a number of regional governors publicly exposed the inapplicability of the legislation in certain contexts and proposed the national state to concede them more powers on mining regulations (Actualidad Ambiental 2013). It also happened in 2015, when leaders of mining federations
and regional authorities demanded the central state to reduce the number of steps to formalize mining activities (Ojo Público 2016). Despite the reticence of the national state to include them in the process, miners have successfully exerted pressure to include their input to modify policy outcomes, hurting the image of the state as an institution capable of designing and enforcing the rules.

2.8 Conclusions

This paper has shed light on an often-overlooked type of state competitor, the organizational challenger, to demonstrate one of the most pressing issues hindering state development in the Andes. While Andean states have been able to use favorable economic contexts to grow in absolute terms – expanding their presence physically and modernizing their bureaucracies – they still show important organizational deficits relative to highly organized competitors. Subnationally, informal governance systems dispute the social control of the state by providing basic infrastructure, employment and social mobility to citizens in marginalized areas.

In a relational study of state capacities, I have discussed the process of emergence and empowerment of informal miners vis-à-vis the expansion of the Andean state pre-boom. My findings showed that, given the highly exclusionary pattern of state development, organizational challengers and their informal institutions could freely develop in marginalized areas. By only relying on rents, the state never had to turn inwards to meet its expansionary goals. This granted an organizational advantage to local competitors which has not been reverted ever since. On the contrary, state organizational inactions have contributed to the sedimentation of informal practices associated to the campesino economy in local
extractive institutions. The resource boom then comes to consolidate an already existing advantage.

My study has also showed how the organizational deficits of the state are now bringing up deep implications for Andean states development processes. Firstly, the dependence on informal extractive systems translates into popular support and institutional backup from subnational authorities – exposing the low levels of state compliance and a high degree of incoherence between national and local-level state bodies. Secondly, the proliferation of organizational challengers poses a dual dilemma for state expansion. Where states choose to legitimize the work and economic contribution of organizational challengers locally – as in Bolivia’s MAS – the state gains social control but it further empowers the competitors who use their status to negotiate their compliance in exchange for regulatory exemptions. On the other hand, in cases where the state opts to assert their monopoly of social control by enhancing its coercive capacities vis-à-vis the challengers – as in the case of Peru – the state ends up cornering them further away from its reach and risking the challengers’ clandestine expansion, often in alliance with criminal groups.

The study of the organizational challengers establishes a research agenda around how the informal practices and institutions from below impact national resource governance. Several authors working with commodities such as gold, quinoa and palm oil in Indonesia, the Philippines, Burkina Faso, Guyana and Bolivia have been investigating organizational challengers’ relationship with local officials (Verbrugge 2015), the tensions that arise with state regulation (Spiegel 2012; Hook 2019), land politics (Peluso 2017), resource governance conflicts (Lahiri-Dutt 2018) and the internal political economy of the informal systems (Walsh-Dilley 2013; Pokorny et al. 2019). These studies point at the fact that the extractivism of the poor has a wide repertoire of strategies to provide for marginalized sectors, but also to
interact with state institutions. This paper has attempted to condensate all the shared characteristics of organizational challenges, but further work is needed to have a more systematic account of the common repertoire of action of these competitors and the practices that give them an advantage over formal states institutions.

The topic also brings methodological implications for state development research. Following Dargent et al. (2017: 27), I argue that the study of the Andean case calls for the need of state measures that account for its net gain or losses in different areas, such as organization, infrastructure or security, and in relation to those of the competitors. In other words, a comprehensive analysis of the infrastructural power of states should not only look at state investments, but it needs to include a comparative study of how the abilities of the state produce positive outcomes in comparison to those produced by the organizational challengers. Though this is a complex exercise given the information needed on informal actors, my study has proposed a feasible approach based on what are costs of the state to increase social control in local communities where the challengers operate. The costs, that is, the instances where the state has to compromise and incorporate part of the agenda of the challengers, give us an idea of how big the organizational gap is between the state and the competitors. The higher the costs to obtain their compliance, the higher will be the efforts needed for the state to compensate for what competitors are providing to local communities.

Lastly, the analysis of Andean states’ responses to informal mining shows that it is imperative for these states to increase their organizational capacities. State’s increase in resources and institutional improvements will not be enough to mitigate the current gap. By contrast, where organizational challengers keep the upper hand, state expansionary efforts will fall short. A crucial step towards effective regulation for the state is then to strengthen its organizational capacities in two ways that need to go hand in hand. First, gathering
considerable information about the local context, economic circuits, resource governance practices and key stakeholders. This information needs to include the input of local actors. This has been a huge impediment for both states to develop feasible policies. Whereas Bolivia is ahead of Peru in this regard, it heavily relies on the information given by the miners. The state needs to develop autonomous sources of knowledge on local dynamics. Second, breaking the high level of dependence from informal governance systems requires intensive social investment and state presence. A state that attempts to regulate but is not physically present in the area supporting communities will never be respected. Further analysis on the outcomes of state-miners interaction can give us an idea of what kind of reforms are productive to increase state’s social control.
Chapter 3: PAPER 2. Understanding Local Responses to Informal Gold Mining versus Large-Scale Mining. A Case Study from Tambogrande, Peru.

With Marcello Veiga

3.1 Introduction

Over the last 15 years, there have been an increasing number of conflicts in South America’s extractive industries. Here, past and present examples of companies’ poor performance in dealing with environmental and social issues have plagued the sector, intensifying opposition from locals to mining projects (OCMAL 2017). In response, South American states – in partnership with companies – have implemented initiatives to direct benefits to mining towns and which favor interaction between companies and local
population, albeit with little success. Thus far, 219 large-scale mining conflicts have been reported in the region (OCMAL 2017).

Interestingly, in several towns in South America where locals firmly oppose large-scale mining, artisanal and small-scale gold mining, an informal activity, is now proliferating unabated. The list of cases includes Marmato (Caldas, Colombia), Buriticá (Antioquia, Colombia), Tambogrande (Piura, Peru) and more recently, Molleturo y Chauca (Azuay, Ecuador) and Morona Santiago (Ecuador). Why do locals respond differently to informal gold mining? The existing approaches pointing at economic and environmental factors do not provide satisfactory explanations as to why informal mining does not trigger the same reaction as large-scale mining.

This paper seeks to move away from impersonal explanations of opposition to mining activities, instead addressing the issue from and through the perspective of those that are directly affected by mining operations. It presents findings from a qualitative comparative study of local communities’ perceptions of mining at different scales – large and small scale – in Tambogrande (Peru), in an attempt to identify the rationale behind the opposition or tolerance to mining activities. The case of Tambogrande received a great deal of attention in the early 2000s, when locals organized a referendum that led to the rejection of Manhattan Minerals Company’s mining project. Since then, Tambogrande has been a central focus in

---

9 Examples of these initiatives include: localist management of revenues’ policies in Bolivia and Peru and the promotion of Dialogue Roundtables in Colombia, Ecuador and Peru, where communities voice their concerns and negotiate local investment directly with companies.

10 Informal mining in this paper means that the activity operates without formal permits and that none of its mining practices are regulated by the state.
the analysis of mining conflicts and state responses for policy analysts and academics (Paredes 2008; Revesz 2009; Bebbington 2012; Prno 2013; Arce 2014; Arellano-Yanguas 2014). It also became iconic for activists as the cancellation of the Manhattan mining project proved that local mobilization can in fact make a difference (Muradian et al. 2003; Martínez-Alier 2004; Haarstad and Fløysand 2007; Mining Watch 2012). More than 15 years later, however, the town has been forgotten and in the last seven years, informal gold mining has proliferated here and in surrounding areas (Correo 2011; GRP 2012). Although resistance to large-scale mining has been largely documented, this paper argues that only part of the story has been told. The goal in this paper is then to revisit the case to give a complete picture in light of new evidence.

This research found that the main determinant behind different responses to informal and large-scale mining is their degree of compatibility with the local social order. While large-scale mining is perceived to bring about displacement and socioeconomic exclusion through the imposition of a new order, informal gold mining is seen as an activity that does not clash with the existing local order and the main productive activities in the area, particularly, agriculture. In fact, informal gold mining is conceived as a living opportunity, complementary to other sources of revenue, for unskilled workers who do not have access to the formal labor market. The fieldwork also demonstrated that locals are generally well-aware of the economic contribution made by large-scale mining and of the environmental risks that both it and artisanal mining pose; yet, these considerations are mediated by a stronger concern with the preservation of social stability and local ties, which is deemed to be the top priority. In particular, the degree of proximity and trust with those who mine makes a great difference in the locals’ judgment. Thus, whereas informal mining has developed close ties with locals by feeding economic circuits that directly benefit them and by being in
constant communication with communities, large-scale mining continues to be perceived as impersonal activity led by outsiders.

The purpose of this paper is to draw policy-makers’ attention to the importance of the social sphere when analyzing incentives for, and obstacles to, the expansion of mining activities – in particular, informal gold extraction – in developing countries. The goal is not to generalize the findings from Tambogrande, but to rather provide evidence of the usefulness of context-sensitive strategies that put locals at the center of decision-making in order to comprehend their motivations, values and needs, instead of neglecting them or taking them for granted. Indeed, context-blind and exacting formalization campaigns for informal gold mining have proved to be utter failures (GIATOC 2016) and have been questioned in the literature for not integrating the perspective of miners and local actors, dismissing local practices and habits, and overlooking the contribution of informal activities to local economies (Labonne 2014; Hilson et al. 2014; Salo et al. 2016; Verbrugge and Besmanos 2016; Hilson and Maconachie 2017; Hilson et al. 2017; Marshall and Veiga 2017). To offer an alternative solution to this challenge, the paper argues that strategies focused on the importance of local dynamics should constitute baselines to redirect state approaches towards artisanal gold mining.

3.2 The case of Tambogrande and the expansion of informal gold mining in Peru

Tambogrande is a district of 120,000 habitants located in the region of Piura, northwest Peru. With almost two million inhabitants, Piura is the second-most populated
region and one of the most geographically diverse with deserts, valleys, mountains and forests, and a variety of microclimates. Thanks to the reservoir of San Lorenzo, Tambogrande has developed a strong farming tradition despite its dry-forest geography, and supplies mango and lemon to national and international markets. While agriculture is the main economic activity, the region is also rich in fishmeal, fertilizers, oil and phosphates. Natural resource wealth, however, is not indicative of local human development, as the poverty level in Piura is almost 36 percent (INEI 2017). Poverty is concentrated in rural areas and mountainous provinces, such as Ayabaca, Morropón and Huancabamba, which are farther from the state’s reach. Here, traditionally agro-based communities face climate conditions that are unfavorable for year-round harvest, often forcing them to migrate downhill towards richer areas. In virtue of its location – *en route* to the capital and on the boundary between rural and urban towns – Tambogrande is a juncture point where locals from the poorest provinces arrive looking for opportunities.

In 2002, Tambogrande made history when, for the first time in Latin America, a referendum was held to decide the acceptance of Manhattan Minerals Co.’s mining project. The company proposed a project to extract 10,000 tonnes per day of copper and gold ore in the center of the town with an initial investment of US$ 1 billion for a period of 12 years. Although the company proposed local investment and about 400 jobs, almost 98 percent of the local voters expressed their opposition to the project. As most of the people in the area are farmers, they were concerned about the impact of the mining project on land and water quality (Paredes 2008; Revesz 2009). Moreover, in a town with no antecedents of mining, the lack of information and transparency from both the company and the state brought up questions in the community about how the project was going to proceed (Arellano-Yanguas
2008; Revesz 2009; Arce 2014). After several episodes of protest and violence that culminated with the death of an activist, the government cancelled Manhattan Co.’s project.

At the conclusion of the case, however, Tambogrande went from being a land with great prospects for progress and development for the Peruvian State to a forgotten town where economic growth remains an unfulfilled promise. Paradoxically, in the last seven years informal gold mining has proliferated in Piura, including Tambogrande and surrounding areas (GRP 2012). It is estimated that small-scale and artisanal miners in Piura are dispersed across 158,000 hectares, producing 1 tonne of gold per year (Veiga et al. 2015). In 2016, the regional government of Piura estimated there to be 1,171 informal gold mining sites with 30,000 workers spread across eight districts of the region (GRP 2016).

The proliferation of informal mining is not limited to Tambogrande; in fact, Peru has become one of the leading small-scale and artisanal gold producers – ranging from 25 to 40 tonnes per year (Seccatore et al. 2014), including in areas that showed opposition to large-scale mining. Overall, informal gold mining is now present in 21 out of the 25 regions of Peru and the number of small-scale and artisanal miners fluctuates between 100,000 and 500,000 (De Echave 2016), most of them working in the rainforest and southern Peru – all of them rural areas where the Peruvian state has been weak. At present, 28 percent of the total gold mined in Peru comes from the informal market (GIATOC 2016). From 2003 to 2014, Peru lost more than US$ 15 billion on undeclared taxes coming from artisanal gold mining (Torres 2015).

---

11 Examples of areas where large-scale mining was rejected, but informal mining is proliferating in Peru include: Ayabaca (Piura), Cajamarca, Chumbivilcas (Cusco), Espinar (Cusco).
Addressing this scenario, the last two governments of Peru have set informal gold mining’s formalization as one of their top priorities. New legislation has been implemented to regulate small-scale and artisanal gold mining practices, sometimes labeling it as illegal (El Comercio 2017). Additionally, numerous military operations to burn mining camps have taken place, aiming to deter the proliferation of the activity (Washington Post 2015). In essence, this strategy has tried to impose rules and punitive measures in areas where the state has been long absent and where mining-related practices are already entrenched in the local context to the point of involving several local actors (Salo et al. 2016). As in other cases in South America, legal and coercive strategies in Peru have proved ineffective thus far (GIATOC 2016). Intricate and ever-changing legal frameworks combined with a heavy bureaucratic burden for formalization discourage miners from engaging with the state – an actor that seems distant from their reality, hence, difficult to trust and obey (Veiga et al. 2014). More importantly, miners do not see how formalization can provide advantages for them. At the time of writing, less than 2.5 percent out of those willing formalize their activities in Peru had successfully achieved it (El Comercio 2017) and in Piura only two processing plants have done it (GRP 2016).

How can we explain that Piura – the same region that set an international precedent by strongly opposing large-scale mining activities – and Tambogrande, in particular, is now experiencing a proliferation of informal gold mining activities without igniting the same reaction from locals? What accounts for the difference in the local population’s response to different mining activities? In other words, when it comes to mining activities, what matters for locals?
3.3 Methods: Putting people at the center of analysis

In order to understand what explains opposition or tolerance to mining activities, this paper argues for an approach that puts more attention to the actors’ beliefs, needs and motivations in relation to large-scale and small-scale and artisanal mining activities. It is argued that the recognition of the social scaffolding that guides locals’ comprehension of mining activities is key to develop fruitful state approaches. Thus, the fieldwork focused on giving voice to the local population, their rationality and on characterizing contextual factors. Specifically, the study centered on identifying what elements locals prioritize, that is, the logic behind their attitudes towards different mining activities.

To achieve this goal, the research engaged with the concept of perception, understood as cognitive processes through which the person reconstructs and interprets reality. Perceptions are principles of orientation because they help individuals acquire a sense of the position they have in the social world (Bourdieu 1968). Although they are susceptible to change over time, the value of perceptions lies in offering high confidence to read the information presented in the outside world and to make decisions (Bourdieu 1984). In the research on mining conflicts, the study of perceptions was introduced to account for the complexity of conflicts and to move away from one-dimensional explanations. The literature identified that in several cases of mining conflicts, there was a disjuncture of value systems between the actors involved, often leading to the exacerbation of tensions (Martínez-Alier 2001; Jenkins 2004; Bebbington 2012). This encouraged scholars to search for methodological strategies that could help to broaden understanding of the perspectives of local actors, their relationship with the land and those considerations of immaterial nature present in their narratives that are more relevant to them (Martínez-Alier 2004; Haarstad and
Fløysand 2007). The study of perceptions in that sense provides access to the systems of beliefs and subjectivity of those involved. This is all the more useful in contexts such as rural Peru that have been politically marginalized and lack strong representative institutions to give voice to concerns and demands.

The analysis of perceptions was articulated around three indicators that helped us to identify focus of interests and topics of relevance for locals throughout their quotidian life. These indicators – concerns, expectations and level of engagement – were useful to uncover and categorize the rationale behind their attitudes towards large-scale and artisanal mining. Concerns are defined here as negative thoughts and worries rooted in real or imagined events from the past or the present, involving mining activities and the local land. Expectations are understood here as the beliefs based on predictions or wishful scenarios. The formulation of expectations is oriented towards the future but they are usually founded in present and past experiences related to mining activities. Engagement in turn is defined here as a type of relationship in which actors are invested. High levels of engagement can be found when the interactions between actors are voluntary, repeated and constant and where the interacting parties’ interests are largely compatible. In this study, the focus is on the level of engagement between those who mine and the local population.

The data for this particular paper were gathered through 16 semi-structured and 20 structured interviews, surveys and ethnographies. Semi-structured interviews targeted adults – living in Tambogrande for at least 13 years – when the initial conflict with Manhattan Co. took place, and members of three small-scale and artisanal gold mining associations. Interviews with locals offered insights, firstly, about the perception of locals on the environmental impact and the economic contribution of large-scale and informal gold mining – which helped the research to test conventional explanations to locals’ response to mining
activities – and secondly, on the changes that locals perceive as directly connected with the development of mining activities and how these are connected with what they value. Additionally, a survey with 100 community members was conducted with the same selection criteria for participants and the same type of questions to see if the findings from semi-structured interviews could be extended to a larger scale.\textsuperscript{12}

Interviews with informal miners,\textsuperscript{13} in turn, solicited information about their practices, the people involved in their activity, and their relations with local communities. On the other hand, structured interviews were designed for leaders of eight \textit{campesino} communities, six female leaders of \textit{Comedores Populares},\textsuperscript{14} and six representatives of relevant social organizations working in the area and local authorities. These helped the research to have a more cohesive image of the main concerns and expectations of the communities themselves and to trace the patterns of expansion of the informal gold mining activities.

As a complement to interviews and surveys, ethnographies assessed the level of engagement between informal gold miners and locals. Ethnographies took place in Tambogrande, both urban and rural areas, \textit{campesino} communities’ territories potentially affected by mining activities and nearby mining towns experiencing flows of locals from Tambogrande. These also contributed to see how embedded large-scale and informal gold

\textsuperscript{12} Guides for the interviews, ethnographic work and the survey conducted can be found in Annex B, C and D.

\textsuperscript{13} We interviewed informal miners from Tambogrande and members of informal gold mining associations in Lomas and Suyo – the closest mining towns to Tambogrande – where people from Tambogrande are migrating to work in mining and mining-related activities.

\textsuperscript{14} Communal kitchens managed by women leaders in rural and peripheral areas of Peru.
mining activities are in local community, how much locals know about both, and how these sectors are viewed at the local level.

3.4 Findings

3.4.1 Discarding conventional explanations

The first objective of the fieldwork was to test conventional explanations for locals’ opposition to large-scale mining by seeing if these also account for informal gold mining’s expansion. The two most important arguments put forward by policy makers and scholars to explain opposition to large-scale mining in the case of Tambogrande and other similar cases focus on economic and the environmental factors (Ballard and Banks 2003). Economic explanations posit that local opposition to mining is the result of concerns about economic needs: those potentially affected by large-scale mining activities simply do not believe that it will bring economic benefits at the local level (De Soto 2011). Environmental explanations, on the other hand, argue that local conflicts around large-scale mining reflect concerns about the impact of mining on the environment (Muradian et al. 2003; Guarango 2004). At the time of the conflict with Manhattan Co., this was one of the most common explanations provided by the literature, as several local campaigns mobilizing regional support put emphasis on the potential damage that mining could cause to land and water (Paredes 2008; Revesz 2009).

If these arguments are correct, the research findings should show the same reaction from locals due to the expansion of informal gold mining in Piura. Unlike the large-scale mining sector, which contributes to national, regional and local revenues, the overwhelming majority of small-scale and artisanal mining activities in Peru are not formally regulated by
the state, which means they are not taxed. Moreover, as in most of Latin America, in Peru, informal gold mining lacks environmental, health and safety regulations. Several studies have accused informal gold miners of damaging the environment with land pollution through misuse of mercury (Swenson et al. 2011; Defensoria del Pueblo 2013). Despite these charges and although the Peruvian State has tried to discourage the expansion of informal mining, the review of local media and interviews with local journalists confirms that Tambogrande did not have any form of protest or massive public demonstration against informal mining as it did with large-scale mining in the past.¹⁵

A potential reason for the lack of opposition to informal mining could be that locals are not informed about the mining activities taking place in their territory. In order to account for this, the interviews and surveys purposely included questions that touched on large-scale and informal mining separately. The results showed that more than 56 percent of the people were able differentiate between large-scale and informal mining. Moreover, 74 percent of locals surveyed claimed to have heard about informal mining and most of the people could accurately identify the towns in the region where this activity was expanding in the region.

A second potential source of bias could be that locals are uninformed about the impacts of large-scale and informal mining on their territories. This belief is so widespread that, after social programs, most of governments and mining companies’ investments focuses on “informing” people about the benefits of mining (Rodriguez-Carmona et al. 2013). The findings of this paper challenge this assumption. The research found that locals are aware of

¹⁵ Additionally, media has reported that in other communities of Peru, public demands and protests of informal miners against the state have received the support of locals and local authorities. See: El Comercio, 2015.
the economic and environmental impacts of mining. Almost all of the locals interviewed recognized that large-scale mining contributes greatly to the national economy. By the same token, 53 percent of the surveyed locals identified pollution as the biggest concern for both large-scale and informal mining. Economic and environmental preoccupations are real. Yet, locals do not think about the economic contribution or the environmental impact of mining as being isolated from the rest of the consequences that large-scale mining brings. Concerns related to large-scale and informal mining are mediated in relation to another factor: the preservation of the social order.

In practical terms, this means that although large-scale mining can be seen at first as a better source of revenues, all the interviews with community leaders where the Manhattan’s project was going to take place showed that the economic contribution was and still is not enough by itself to ensure the approval of the local community. Neither is the sole economic factor perceived as an asset for the development of the community in the long term. On the contrary, enticement through mere economic incentives can boost resistance to mining operations. This is consistent with national studies which show that the increase in regional budgets and mining companies’ local spending has not represented a decline in the number of mining conflicts but has exacerbated them in several cases (Arellano-Yanguas 2011). This happens, as global studies have shown (Conde and Le Billon 2017), because locals from developing countries find it difficult to trust the state as an adequate administrator of the revenues; or, as community leaders in Tambogrande explained, because companies’ economic offers alone are often seen as an attempt to divide those who want the money and those who do not, thus threatening peace and order in the communities. Despite their difficult living conditions, locals in Tambogrande are not solely motivated by profit.
Likewise, concerns about the environment are intensified or lessened depending on the perception of who leads the activities and how close they are to the community. Most of the locals believe that given the magnitude of the operations, large-scale mining pollutes more. This was the second-most common answer in the surveys when the interviewees were asked to differentiate between the two activities. Moreover, the interviews showed that, given that large-scale mining is seen as a foreigner-led activity, whose workers are careless about its fallouts, and it takes place all year, the related environmental damage is expected to be greater. By contrast, as informal gold mining is conducted by locals who know the territory and only work during certain periods of the year, its effect on the environment is expected to be moderate when compared to large-scale mining. This perception does not mean that locals associate informal mining with better practices. In fact, locals expressed concerns regarding mismanagement of tailings due to the miners’ lack of expertise. Specifically, they were worried about the effects of underground sub-basins used for informal mining that discharge in the valley of San Lorenzo – the main source of water for farmers and domestic consumption in Tambogrande.

The lack of opposition to informal mining despite these concerns proves that other aspects beyond the economic and environmental spheres have the strongest weight when it comes to perceptions of mining activities. The field research demonstrated that people are able to differentiate between large-scale and informal mining activities, are aware of the pros and cons of both, and most importantly that locals understand mining activities based on the relationship that these two sectors establish with the local existing social order. Clear proof of this is that when locals were asked to differentiate between large-scale and informal mining, 49 percent of the answers given broached social issues, 15 percent emphasized economic issues, 15 percent highlighted the technology used in each activity and 12 percent
singled out environmental impacts. Some of the most common social elements perceived and used to differentiate large-scale from informal mining were the nationality of the workers, whether they were from the neighborhood, and their level of education.

3.4.2 The preservation of the social order as a priority

Social order is understood here as all the practices, values, networks and human interrelationships at the local level that build and enforce certain types of behavior. The social order provides humans with roles and certain criteria to judge other activities within society (Bourdieu 1984). The more internalized a social order is, the more resistance society will put up to a change in their patterns of action. What emerges from the surveys and interviews is that the attitude towards different kinds of mining operations is a matter of compatibility with pre-existing local dynamics. What, then, makes large-scale or informal mining more or less compatible with the existing social order? In order to provide an answer to this question, the research asked locals how people thought large-scale and informal mining would affect their lives.

The findings show that when thinking about their future, people from Tambogrande do not see themselves as benefitting from large-scale mining activities; in fact, they fear displacement by the new social order, which emerges when an industrial mining company enters the area. Given that large-scale mining requires specialized knowledge that most locals do not possess, they do not see themselves integrated in the new socioeconomic circuits that large-scale mining generates. A common concern among the locals interviewed was that the mining project would displace or become detrimental to their current economic activities. As one local from Tambogrande stated in an interview:
Would you buy our mangos if you knew they grow next to them [the mining company], next to a big mine? No… the exporters don’t want it and no one here wants them. What would I do then? (Interview # 7, 1 July 2015).

The research found, in accordance with this example, that agriculture, the main productive activity in Tambogrande – recognized by 76 percent of the locals surveyed as the activity that employs the most people in the area – has extensively influenced the social order. For this reason, locals are particularly reticent to welcome new systems that put the productive networks of agriculture at risk.

Likewise, community leaders expected that the arrival of new elites (i.e., the new foreign skilled workers), new powers (i.e. the mining company) and new productive activities would divide communities. It is therefore unsurprising that, more than 15 years after the conflict with Manhattan Co. and with another mining company – Buenaventura S.A.A. – looming over Tambogrande, 88 percent of the locals surveyed who were informed about the new project said they are against large-scale mining activities in their territory.16 This observation mirrors findings from regional and global studies which have argued that environmental impacts are more likely to trigger local resistance in cases where these factors combine with social elements (Bebbington 2012; Prno 2013; Conde and Le Billon 2017).

16 Given that Buenaventura is a Peruvian company, the research tested if the nationality of large-scale mining companies makes a difference in the perception of locals. Results suggested that it was not a relevant factor, as in the field companies followed the same patterns of action when engaging with locals.
The belief that large-scale mining will bring exclusion or chaos stems from the history of state imposition of such projects on local communities in Peru. Indeed, the Manhattan Co. mining project in 2002 was not initially discussed with the locals and there was no effective local involvement in decision-making (Revesz 2009; Prno 2013). Even at present, with Buenaventura, the local media has reported conflicts with community leaders, who in turn have complained about the lack of information and communication with the mining company (Servindi 2014). During conversations with community leaders about the new potential mining project, they expressed a high level of distrust to a project led non-transparently and disrespectfully to their culture. In one interviewee’s own words:

We are about 1300 comuneros 17... we have rejected the project because they say that they want to talk, but they don’t respect the order... I have witnessed this before... they don’t want to talk openly to all the comuneros, they prefer to talk secretly to one or two delegates or to offer goods to people... You know why? Because like Manhattan, they have already decided what to do (Interview # 4, 1 July 2015).

In contrast, what emerged from the questions about informal gold mining is that the activity blends into the social order as a profitable alternative for those who, on the one hand, rely on an unstable source of income such as agriculture, and on the other, do not have the skills to enter into a different economic sector. Indeed, when tracing the pattern of expansion mining activities, we found that although Piura has no record of gold rush, informal mining has been a latent activity in the area for more than 20 years, especially during times of hunger (Loaiza and Galloso 2010). The last commodity boom, however, has considerably increased

17 Members of peasant communities. Peasant communities in Peru are recognized autonomous associations.
the number of people willing to switch to informal gold mining, which is now proliferating in towns that belong to the poorest and most isolated provinces of Piura, such as Suyo (with almost 8000 miners), Lomas (with around 1200 miners), Paimas (with 500 miners) and Sapillica (with around 500 miners) (GRP 2012) (Figure 4). Although informal gold mining remains seasonal, the activity has progressively attracted more locals looking for job opportunities. There is no other activity in rural Piura that can pay unskilled labor better than informal mining, for both the youth and adult labor force. Thus, mining zones are experiencing fluxes of people from nearby towns, including locals from Tambogrande. Likewise, progressively experienced locals from towns where informal gold mining is concentrated are opening new deposits in the borders of other towns.

---

18 According to the miners interviewed, the activity in Piura is particularly intense from April to December. These are times when it does not rain in the region.

19 The fieldwork found that in Piura whereas young inexperienced are employed doing auxiliary tasks, older men work directly in quartz veins.
The reason for the positive attitude towards informal gold mining has to do not only with the fact that the sector brings job opportunities to the community, but also because the activity is not imposed on the community. Thus, the “illegal” status of small-scale and artisanal gold mining has not prevented the development of the relationship between the
activity and locals. On the contrary, the fact that informal mining’s expansion has taken place in remote areas helped the activity to freely expand and develop strong links at the local level. Informal gold mining and the activities connected to it are perceived as a new alternative, not threatening to current ones. Indeed, one of the most interesting findings was that almost all the informal miners interviewed did not define themselves as such, but they always made reference to their work in the agriculture sector. As one local working as a miner explained:

…Now you see me as a miner, but I have always worked the land… Over there, we are all like that. Even my wife, she sells food but sometimes she is a *pallaquera* \(^{20}\), she sees how it goes and then help us or does other things (Interview# 18, 23 July 2015).

The fact that informal gold mining does not seem to clash with other activities is highly valued by locals.

3.4.3 The importance of personal ties: familiarity versus the impersonality of the market

The findings revealed the importance of personal ties as a determinant of support for mining activities. Often, locals referred to informal miners as “friends”, “friends of friends”, “relatives” or “acquaintances”, whereas they saw large-scale miners as “outsiders” and “strangers”. The findings showed that not only the preservation of the social order trumps economic and environmental considerations, but also the degree of closeness to the locals plays a crucial role in determining support for informal mining activities. As stated above,

\(^{20}\) Women who collect the waste rock after the miners have removed the stones from the mines.
given that large-scale mining companies have a history of beginning their activities with just the consent of the state – which, in turn it is not perceived as a protector of the communities’ interests – and without necessarily the full consent or participation of communities, the “impersonality” of large-scale mining generates great distrust.

By contrast, informal gold mining in Piura generates tight economic circuits that work mainly with trusted people. Given that miners prefer to get their tools from others within their close circles, the new economic clusters created by informal gold mining get their supplies from the local market. This seems to be a recurrent pattern in Peru’s informal mining proliferation zones (Mosquera et al. 2009). Thus, although informal gold mining in Tambogrande has not yet reached the level of production of other parts of Peru – for example, there are no processing centers or gold shops – ethnographies and interviews revealed that the circuits that informal gold mining generates in the neighboring towns are already reaching people from Tambogrande directly and indirectly. In addition to the informal mining labor force, there is a mass of locals in Tambogrande that has started migrating to the mining towns, particularly to Lomas (Piura) and Suyo (Ayabaca, Piura) to sell goods. Traders from Tambogrande explained that due to the increasing economic power of the miners in the mining town, it is worth traveling there to sell their goods at a higher price.

The engagement of locals with the informal mining sector is not limited to the economic ties created by the activity. The research found that the strongest link with the activity is the people themselves, that is, the informal miners. People’s perception is not built on mining activities in the abstract, but it is rather directly connected with the people that

21 This is not only the case of Peru; global studies identify distrust, lack of participation and pro-industry state policies as one of the main drivers of locals’ resistance (Conde and Le Billon 2017).
carry it out. People’s judgment links the subject with the activity (Bourdieu 1984). In that sense, in the eyes of the people, the background and the behavior of the miner matter as much as the outcomes of the activity that the miner herself generates. This perception contrasts greatly with the approach Peruvian literature generally takes on artisanal gold mining, which has tended to talk about “informal mining” instead of “informal miners”. The informal mining sector barely has a human face in Peru’s mainstream media and literature. The activity is frequently condemned at the public level, but it is not really clear who the miners are.

In fact, interviews highlighted how locals’ assessment of informal gold mining is based on the perception of the people involved in the activity. According to the survey, almost 90 percent of the people in Tambogrande think that informal miners are from the region of Piura and almost 60 percent believe informal gold mining benefits the people and the areas where it takes place. The field interviews revealed that this belief is not necessarily associated with the idea that informal gold mining generates wealth for everyone, but simply with the fact that it is practiced by locals. That is, people who are close to them and to whom they can relate. In the words of a miner:

“We do not work alone. I know other leaders of peasant communities…they talk directly to the miners. They work with them because they know each other… They are the same as us, and they want to make sure we hire their people and that their communities benefit the most out of artisanal mining (Interview # 13, 21 July 2015).

Interviews with miners confirmed that informal gold mining is mostly practiced by locals. They can be from the same town or neighbouring areas within the region of Piura. Normally, miners from towns where informal gold mining has been more developed, such as Lomas or Suyo teach or activities in new deposits.
The sense of proximity and familiarity with people in the field makes a big difference because locals are capable of understanding the circumstances that drive others to become informal miners. This does not mean that knowing the people working on the mines will automatically lead to local consent. However, the longer and the more locals are exposed to a particular experience, the greater the chances people will be able to understand its complexity (Bourdieu 1984). This argument is particularly accurate for societies such as the Peruvian that register high levels of distrust and which tend to trust only their closest circle or those with whom they have direct contact (Bebbington 2012).

The fieldwork revealed that locals who have had close contact with informal miners recognized their hard work, and the risks and poor labor conditions miners face. Although many informants acknowledged that it is an activity that pays well, they also manifested concerns about its instability. Given climate conditions workers cannot be miners all year and they frequently have to alternate this activity with another one, such as agriculture or trade. In other words, locals knew and understood the complexity of artisanal gold mining. As a young man working in the market of Tambogrande stated:

My cousin and some friends work in the mines because they could not find anything else. I have been thinking of joining but it is not that easy. They told me workdays are intense. When the gold vein is open, they just work as much as possible all day and night too! And then you can be unemployed for a long time…what if I break my arm or something while there? … I think it is a risky job… (Interview # 10, 12 July 2015).

The characterization of informal miners is quite different from the one of large-scale workers summarized by the literature that investigated the case of Manhattan Co. (Paredes 2008; Revesz 2009), which shows how locals from Tambogrande did not engage with the
representatives from Manhattan, who appeared distant from the local community. The shock of dealing with the unknown played a key role in the case. In the absence of any kind of information about the workers and leaders of the project, locals used what they heard from other cases where mining projects took place in the country as a point of reference. These were mostly negative references from mining projects that were developed against the local communities’ will and which only left pollution and poverty (Guarango 2004).

3.5 Discussion and Recommendations

This paper has argued that although locals are aware of the economic and environmental impacts of large-scale and informal mining, these are not the only factors determining their perception of these activities. It is their relationship with social factors what tips the scale in favor of informal gold mining. In the case of Tambogrande in particular, the degree of compatibility of informal gold mining with the pre-existing local order, productive activities and needs in combination with the degree of proximity to locals plays a pivotal role in favoring its unopposed expansion. While the relationship between locals and informal gold mining is not exempted from tensions and concerns, the level of inclusion and direct participation of the activity contrasts with the ostracism and impersonality associated to large-scale mining and makes locals prefer the former over the latter.

23 Although there are nuances within the sector, communities still feel the need to engage in contentious politics with companies to even the ground. This is given an entrenched perception that companies are powerful enough to impose their will and have no incentives to attend the demands of communities unless they are in need of certain local good (Arellano-Yanguas 2011).
This study has also highlighted that in order to develop effective regulation we need to have a deep comprehension of the social environment in which informal gold mining thrives. This is indispensable to identify what propels informal mining’s expansion. The findings suggest that, in cases in South America where informal gold mining is persecuted through legal and coercive means, the current state approach to the activity has to be reconsidered along the following directions. First, as this study has described, there is a clear pattern on the type of population – the lowest sectors – and the kind of context – socioeconomic exclusion – that feeds the expansion of informal gold mining, from peripheral areas to mid-cities, in the northern coast of Peru. In areas, such as Tambogrande and the rest of rural Piura, where the state cannot extract revenues in the short term, communities remain isolated. In similar cases, informal gold mining becomes a viable option given the lack of alternatives. This pattern, that repeats all over Peru (Mosquera et al. 2009; De Echave 2016), signals that state absence in peripheral or rural areas is the first and main issue that paves the way to informal mining’s proliferation. In these scenarios, the contrast between tight and reliable networks at the local level and an undependable relationship with an opportunistic national state becomes all the more evident. Remoteness and distrust are then the toughest barriers towards state compliance. A state that commands and imposes rules from afar is not trustworthy. To overcome this impediment, the state has to deliver signs of its willingness to build trust before sanctioning practices. This can be done by asserting its presence and showing a genuine disposition to engage with miners – for instance, by setting up specialized state offices in the areas where informal gold mining proliferates.

Secondly and relatedly, the lack of trust explains why the emphasis on formalizing informal gold mining activities by the Peruvian State has not resulted in an improvement in mining methods and environmentally sustainable practices, nor in a reduction of the informal
mining population, quite the contrary. Considering that the standards for miners to comply to are often too strict and the state does not give much in return, the enforcement of punitive measures is not only useless, but also counterproductive. On the one hand, this pushes informal miners further away from state control. On the other hand, it ends up developing hostile fronts between state and society, further deteriorating the already difficult relationship between them, making working together every time more difficult. Providing positive incentives for locals and miners is the only way for the state to obtain better results. Specifically, technical education of miners and authorities on sustainable mining practices is a key instrument for the state to effectively implement substantial changes in the artisanal gold mining sector. Education is highly needed and demanded by authorities and artisanal miners (Veiga et al. 2015). Moreover, education helps the actors involved to understand the principles and utility of regulation, as well as the benefits of working with the state. It is a fundamental resource for informal mining’s work; hence, its provision can help building trust between the state and communities, as it promotes constant interaction and visible improvements in living standards.
Chapter 4: PAPER 3. The Extractivism of the Poor: Gold Mining and the Functioning of Informal Resource Regimes in the Bolivian Highlands and the Peruvian Amazon

4.1 Introduction

Following the last commodity boom of the 2000s, the number of small-scale and artisanal gold miners in the Andean region has reached about 1.5 million in 2015 (The Artisanal and Small-Scale Mining Knowledge Sharing Archive 2017), with important consequences for the rural world. Government agencies report that Bolivia is the second largest mercury emitter in the region with 120 tons per year coming from gold mining and leading to deforestation, subsoil erosion and public health problems (MRE and MMAyA 2014). In Madre de Dios – the region with the largest production of small-scale gold mining in Peru – more than 50,000 hectares have been contaminated between 2000 to 2013 (Asner et al. 2013), negatively impacting the entire food chain and the quality of water in the whole region (Ashe 2012). These and other problems have contributed to the portrayal of the extractivism of the poor by many state officials, activists and international agencies as a
dangerous and chaotic activity, and miners as voracious, irresponsible and even criminal actors (MINAM 2016; GIATOC 2016; Verité 2016).

Yet, the activity has been able to engender strong support at the local level. This has ensured its continuity, which has showed striking resilience against several attempts of state regulation in Bolivia and Peru (Okada 2016; Damonte 2018). Several mining protests in both countries have had a wide participation of citizen and the support of local officials. What explains this support?

To address the question, I look at the functioning of gold mining cooperatives and associations in rural La Paz, Bolivia and Madre de Dios, Peru. Contrary to depictions of gold mining areas with low state presence as unruly, I argue that gold mining communities have built informal extractive institutions that result in effective and locally legitimate governance regimes of gold territories. These institutions have emerged and developed from key local practices with a long tradition in Andean campesino (peasant) culture – cooperation, direct negotiation and the preservation of local ties and other agrarian activities – which are now combined with market logics. By assembling communitarian practices with entrepreneurial-exploitative features, the reproduction of extractive institutions has generated unintended effects that have filled the vacuum left by the absence of the state with the provision of material goods, such as means of subsistence, infrastructure and employment opportunities. In doing so, this robust pattern of behaviors has become more than just resistance to the state – it has become a functional alternative to it.

Extractive institutions have created spaces for coordination and bargaining for those directly affected by mining activities, which allow communities to engage with the market without any type of state mediation. These institutions are reproduced in the context of popular economies – informal markets that can accommodate varying forms of production,
labor and exchange, while also connecting precarious workers to segments of formal economic circuits (Gago 2017). Although small-scale and artisanal gold mining holds different status in the two countries – the activity is legally recognized in Bolivia but not in Peru – the governance of gold territories in both countries operates with extractive institutions built and reproduced outside of the state rule. In both cases, gold miners’ practices are informal because they are not subject of any type of labor or environmental state supervision.

This paper seeks to add to the literature on institutions by providing an account of the evolving process and crystallization of informal institutions that have become the tools to rule gold territories in marginalized areas. My work outlines how embedded practices can develop unforeseen outcomes that constitute the basis for the predominance of informal institutions over state institutions at the local level. Secondly, the argument speaks to scholarship on the Global South looking at processes of rural diversification (Maconachie and Binns 2007; Bryceson and Yankson 2010; Peluso 2017; Lahiri-Dutt 2018) by outlining the various survival strategies of campesinos in the Andes and their adaptation process in the context of socioeconomic changes. Thirdly, my argument has practical implications for policymaking. It suggests that policymakers refocus their attention from legal or environmental aspects of informal mining to the overlooked local governance regimes that bring local benefits and thus favor the resilience of the activity.

My findings are based on 9 months of field research between 2015 and 2017 in two communities, Santa Rosa and Huepetuhe, in the largest gold mining regions in Bolivia and Peru – rural La Paz and Madre de Dios, respectively (see Figures 5 and 6). Fieldwork in these two communities (and in their regions, more generally) is particularly challenging for two main reasons. First, they are extremely difficult to reach. Santa Rosa is located a six-hour drive away from La Paz on an unpaved road through the Altiplano, while to get to Huepetuhe
from Puerto Maldonado – the region’s capital – is a three-hour trip, on a combination of paved road to the port of Mazuco, then unpaved road, and a boat crossing the Inambari river.

Second, mining communities are highly distrustful. Therefore, even after I could access the mining camps, it took a long time to be invited to witness mining activities, meetings and parcelas (farms) work. Living and interacting with local citizens in the mining towns has given me unique insights about the people involved in the activity, their career paths and their labor routines. I conducted 120 interviews in Spanish and Quechua to local mining leaders, local officials and members of the surrounding gold mining communities. Moreover, by spending time with young and senior miners, female and male, I was able to learn about the key practices that sustain their institutions. To complement fieldwork at the local level, I have also interviewed experts working in academia and research centers, regional mining leaders and national-level representatives. Whereas in Bolivia I had the institutional support of Centro de Estudios Superiores Universitarios from San Simón University (CESU-UMSS) and of the Deputy Ministry of Cooperatives, in Peru several NGOs such as SOLIDARIDAD and experts from the Deputy Ministry of Interculturality helped me to deepen my understanding of how informal regimes are built.

Given the complexity of the topic, my strategy to assess two rich cases was to focus on meaning-making practices such as land access arrangements, conflict resolution strategies and the development of labor opportunities that construct systems of signification (Weeden 2010); in this case, resource regimes. My goal was to trace the priorities of resource regimes and the outcomes that they produce. To this end, I conducted multi-sited ethnographies, that is, multi-sited research that follows people, networks, associations and relationships across non-contiguous places (Marcus 1995, 1998). They require the ethnographer to move across places to assess one same process. Multi-sited ethnographies are useful to study “systemic
realities” in local places – disperse phenomena in relation to a broader system (Falzon 2009).

In the context of a high international demand for gold, I study the development of organized responses around the governance of gold to a common marginalized condition. By comparing the emerging systems in both countries, my study provides an assessment of informal gold mining as a contestation regime rather than as a group of dispersed practices. It also helps identify both unique features of resource regimes in each country and the characteristics that are common to gold governance.

The paper is structured as follows. I begin discussing approaches to explain the continuity of gold mining and place my argument about the unintended consequences of informal regimes in the Andean context. I provide a brief discussion of the constant evolving and adaptation process of the activity until now. I explain the foundations of informal gold mining regimes at the local level identifying the core practices of its institutions, the redistributive circles around mineral extraction, and the effects that those practices generate. My analysis is limited to the process that ends with the extraction of the mineral. Processing and commercialization are not considered here as they surpass local dynamics. In the last part of the paper, I present some snapshots from my fieldwork to illustrate how these extractive institutions operate in each country.
Figure 5 Map of gold mining deposits in Huepetuhe, Madre de Dios (Peru)

Source: Map built with information from the Geological, Mining and Metallurgic Institute (INGEMMET) and information from the Deputy-Ministry of Interculturality.
Figure 6 Map of gold mining deposits in Santa Rosa, La Paz (Bolivia)

Source: Map built with information from the Geological, Mining and Metallurgic Institute (INGEMMET) and information from the Deputy Ministry of Cooperatives.
4.2 Informal resource regimes, extractive institutions and unintended effects

Resource governance regimes are complex configurations of sociopolitical and economic institutions, norms and knowledge supporting a form of exploitation and the interests of a particular group over a sustained period of time (Marston and Perreault 2017: 255-256; Spiegel 2012: 190). As such, they are a reflection of power struggles, inequalities but also of contesting forms of territorial administration. Regimes are reaffirmed and also updated through governance systems which articulate different extractive institutions – that is, practices and rules on the management, access and participation in socioeconomic spaces around gold extraction (Spiegel 2012). Research from the Global South investigating governance in peripheral areas such gold territories show that often these are not governed by state institutions and laws, but by informal institutions that are not necessarily aligned with state’s goals (Lahiri-Dutt 2004; Hilson et al. 2017). These findings have led to an extensive research agenda on parallel and invisible forms of government centralization around strongmen or private actors (Reno 1995; Le Billon 2001), their connections with state institutions and criminal actors (Snyder 2006; Verbrugge and Besmanos 2016; Gavin et al. 2014) and the reproduction of informal governance systems in the context of illicit or informal economies (GIATOC 2016).

Recently, other researchers have questioned the limited information that we have on the actual governance-making of such territories, that is, how these spaces, political actors, labor relations and the ruling institutions in these areas are built in the absence of formal state authority (Verbrugge 2015; Peluso 2018). This scholarship primarily based on South East
Asia and Sub-Saharan Africa has advanced in showing that existing informal regimes around gold territories are also constituted by disciplined forms of governance based on practical claims, labor practices and local histories (Peluso 2017, 2018; Lahiri-Dutt 2018). These in turn, emerge from the knowledge developed in the local context, the close contact with the geography and the technical experiences that the miners have acquired in time (Veiga et al. 2014).

In the same line, literature has explained the continuity and support of these informal regimes by looking at the lack of action of states to enforce control in gold territories (Baraybar and Dargent 2019). In Peru, others have argued that persistence of informal gold mining is closely linked to the lack of local knowledge of authorities on these territories and how they are governed, which makes state attempts of regulations prone to fail while also validating the role of informal miner locally (Damonte 2016). A third type of explanation based on the Bolivian case has stated that gold mining has maintained its hegemonic governance because this is reaffirmed through both state institutions with the capacity to exert coercion to those contesting miners’ power and narratives legitimizing extractivism as the only potential development alternative (Marston and Perreault 2017). Whereas these explanations touch on the structural factors favoring the unrestricted expansion of gold mining, there are also intrinsic factors within the regimes that favor their resilience.

My argument looks into the actual functioning of informal gold mining and, specifically, the byproducts that emerge as the result of the development of informal institutions ruling gold mining. Institutions might not originally have functionalist roots, that is, they might be motivated by efficiency, but by what actors see as appropriate at the time (Hall and Taylor 1996). Particularly in the context of vulnerable sectors, agents can be mostly motivated by the short-term consequences of their actions. Yet, the number of actors involved
in institutions and relations of interdependence among participants increase social complexity and generate unexpected outcomes. The unintended effects of such institutions can bring up significant and even functional effects beyond what their participants could ever hope (Pierson 2000). Although these effects are commonly ignored or treated as ‘noise’, the implications of the process of institutional complexification can acquire enormous social significance.

This is the case of the Andean campesino economy. Originally a family-based form of resource governance concerned with production and self-consumption, these economies are characterized by institutions privileging practices with a strong communitarian orientation, that rely on building tight networks for its expansion and that look to alternate between land-related activities (Contreras 1988; Morlon 1996). Historians and anthropologists studying indigenous people during colonial times (Stern 1987), Andean miners in the early republics (Bonilla 1974), the role of the mining movement in the mid-1900 (Zavaleta 1982) and the miners in the 1980s (2002) have coincided in highlighting the resilience of campesino practices within mining activities (see Figure 7).
Throughout time, these institutions have continued expanding and adapting to different geographical and socioeconomic contexts, in particular they have adapted to a progressive liberalization of the economy and the precarization of labor. This ability has generated regimes aligned with the main campesino practices that in reproducing have generated unintended outcomes. In the same way that state institutions generate unplanned effects that favor some groups over others and that end up legitimizing the adherence to state’s rule, informal institutions also bring up products that enclose material and immaterial benefits that are highly valued from the perspective of the actors. My claim is that campesino institutions ruling gold territories have transformed into extractive institutions generating
byproducts that are now intensifying gold exploitation but also locking-in benefits previously inaccessible to these sectors. This explains communities’ support for informal gold mining governance and hence its resilience.

The argument is in line with that of researchers studying the multiple agrarian developmental paths—i.e. adverse circumstances and economic crises leading to processes of rural diversification. Literature has highlighted the coexistence and alternation between agriculture and mining as a strategy to mitigate uncertainty. Building on the case of Southeast Asia, Lahiri-Dutt (2018) has called “extractive peasants” actors who combine or replace farming activities with mining exploitation. The author has emphasized the capacity of actors to move from one category to another while maintaining a similar set of practices. This strategy is not only used to meet basic needs but, as Maconachie and Binns (2007) and Verbrugge (2016) have showed, in time agriculture-mining alternation has transformed the rural context and created development opportunities in marginalized areas in Sierra Leone and the Philippines. In the Andean context, researchers have showed that campesino institutions have remained in place as they helped communities to face new challenges, such as interacting with global markets (Walsh-Dilley 2013), solving collective action problems (McNeish 2002) and exerting resistance against adverse policies (Korovkin 2000; Lapegna 2016).

I take this line of research one step forward to identify the enhancing mechanism of campesino institutions and the unintended consequences that they generate. I look at the constructed meanings embedded in small-scale and artisanal gold informal extractive institutions that constitute a common basis for their members to act on. These practices are recognizable because they structure the subsequent possibilities of action of the actors, sediment habits and structure reactions to different scenarios. In the words of Bourdieu
(1977), I am looking for the *habitus*, the ingrained social schemes that orient actions and disposition.

### 4.3 The expansion of the extractivism of the poor

Small-scale and artisanal gold mining in the Andes is an activity that for most of its existence has developed outside of the state’s reach. Between 1900-1970 the activity was primordially an independent work alternative for mining workers and *campesinos* when there were massive layoffs, when they were experiencing repression or when there was scarcity in the agricultural sector (Bonilla 1974; Nash 1979; Zapata 1980). The first mining groups to work in auriferous deposits arrived to Huepetuhe in the 1960s (Pachas 2011: 94). In Bolivia, although mining workers became part of the governing coalition after the 1952 revolution and benefitted from political representation and access to working areas, historical records show that artisanal mining was also a very common option in times of state’ retaliation against the labor movement (Zavaleta 1978).

Between 1970s and 2000s, informal gold mining came to be a stable living alternative. Although at the beginning of the 1970s the Peruvian government incentivized the expansion of small-scale and artisanal mining led by local citizens, later on processes of urbanization, political violence and economic crises triggering economic liberalization, state cuts and the closedown of mining companies, obliged Andean communities to disperse and migrate to new areas. This is known as the “popular overflow” (Matos Mar 1991) – the arrival of the masses, “the other society”, to new areas and the Andean conquest of new political, cultural and economic spaces. Migrant groups ended up generating semi-autonomous spaces where they replicated *campesino* strategies because they compensated for the lack of capital.
and skills. However, these practices were now oriented toward new goals beyond subsistence such as economic accumulation and employment, from which they were excluded (Cotler 1978; Zapata 2002; Assies 2006; Choque Canqui and Quisbert Quispe 2012).

In urban areas, these practices were replicated around commerce and services (Golte and Adams 1983). In rural areas, campesino practices strengthened the work of other rural productive activities, such as small-scale and artisanal mining. During this period, former mining workers, campesinos and other citizens formed the first small-scale and artisanal associations in Madre de Dios. In Bolivia, the eighties served to strengthen the development of mining cooperatives all over the country. Rural La Paz at this point experiences an important migration wave from traditional mining regions in Bolivia, such as Oruro or Potosí. Both associations and cooperatives worked with socios (partners) who had a more or less an equal status, shared the costs of production and reinvested the profits.

The neoliberal policies of the 1990s, which further promoted budget cuts in social spending and state institutions, augmented the migration of people to new productive activities, commonly in the informal sector. Former miners and unemployed migrated to state-forsaken towns in far-away regions such as Madre de Dios which, aside from brief colonizing episodes due to the rubber and gold booms in the late 1800s and in the 1970s, was never embraced as part of a national development project (Walker 1987; Damonte 2016). In the 1990s, it was estimated that around 9,500 families were dedicated to informal mining in Madre de Dios (Piazza 2001). Huepetuhe and similar mining towns with very few inhabitants (less than 4,000) became spaces for practical learning of mining techniques, the socialization of Peruvians from different Andean regions with natives from the Amazon and, ultimately, spaces for social organization. In the words of a miner:
When we arrived, there were mostly men from various parts of the country that came and went as it pleased them. Little by little, we started seeing wawas (toddlers) and small houses in the middle of nowhere…My father says water was a big problem at the time…there was none…but as more families moved in, mothers talked to each other and started taking turns to bring water in buckets…as they grew up, children were then helping too (interview # 20, 12 June 2015).

A very similar scenario can be observed in Santa Rosa, La Paz. Although in the traditional mining regions miners had already developed strong sociopolitical organizations, gold miners in La Paz were less experienced. In communities such as Santa Rosa with less than 4000 inhabitants and situated in the low side of the cordillera towards the Amazon basin, the economically depressed situation and low prices of agricultural goods pushed locals to permanently switch to gold mining. Experienced miners from traditional mining regions and local campesinos began a learning process about gold governance. A miner’s testimony provides an example of this process:

We came from Beni [the Bolivian Amazon] where my parents harvested vegetables…I did not know anything about mining but here in the cooperative there was a man from Oruro…that guy knew about explosives, how to find a vein and everything…I then gathered money from my mother-in-law and my brother to give my contribution to the cooperative… (interview #83, 1 November 2017).

The third period in small-scale and artisanal gold mining starts from the 2000s onwards. This is the phase when most people joined the activity due to the rise in the international gold prices in the context of a commodity boom. During this time, the activity continues transforming developing hierarchies, reproducing different forms of production
and labor exploitation, and intensifying mineral extraction. At the same time, given the constant arrival of citizens from the Andean regions, the activity keeps alive certain old practices. Currently, the majority of gold miners are Quechua, Aymara, Amazonian and mestizos, who often have not finished high school and whose family and environment are still closely linked to the agricultural world. There are between 30,000 to 100,000 miners in Madre de Dios, producing about 70 percent of the total artisanal gold mined in Peru, equivalent to 12.2 tons of gold per year (SPDA 2015). In rural La Paz, where more than 80 percent of the gold is produced, estimates say gold mining cooperatives are around 1,100 and each cooperative has between 5 to 100 members (Poveda et al. 2015; Viceministerio de Cooperativas 2016).

4.4 Gold mining governance in commodity boom times: changes and continuities

4.4.1 Gold mining actors

Miners working with small-scale operations – a type of mining that combines artisanal techniques with mechanized instruments – have become the most powerful group in gold mining territories. In Hupetuhe, where there are alluvial deposits, these miners use

---

24 During the early 2000s, the labor movement with mining cooperativist included had led strong protests against the privatization of resources and neoliberal reforms. See: Klein 2008 and Dangl 2010. Paradoxically, locally, miners would later embrace some of these practices in their activities.
dredges, pumps and backhoes whereas in Santa Rosa miners use mechanized drilling instruments for underground mining. Although most of the socios still work in the mines, their main role now is of owners of the means of extraction. Whereas in Peru the activities of these miners remain hidden to state authorities, in Bolivia the cooperativist sector has had the support from MAS government, which has granted them with strong institutional support to find working areas and keep low environmental standards (Francescone and Diaz 2013).

Socios often hire peons who are the labor force. They are frequently unskilled young men, who alternate between different tasks, from lifting weight to drilling and operating small-scale machinery. At the time of my research, peons made between US$ 150 to 500 a month in Bolivia and up to US$ 600 in Peru. If experienced with machinery, these peons can also be paid in gold. They do the hardest tasks, are commonly exploited and exposed to the highest risks, such as landslides and accidents with explosives. Women working in the mining camps are in charge of patrolling the camps or do the cleaning and cooking. Peons are often hidden in Bolivia as, unlike the socios, they do not have access to any type of labor protection.

By far, the most vulnerable groups within this sector are indigenous people and female miners. Their mining techniques are rudimentary – panning in alluvial deposits and hand tools and well excavations in underground mining – and they tend to work with family and close circles. Alternatively, they work as rock strikers – cucharacheros, pallaqueras, palliris and chatarreras – extracting the remaining ore from mineral waste left by small-scale miners. On average they earn between 160 to US$ 230 per month (Orozco et al. 2017: 49).

25 This salary is above the minimum wage which in Bolivia is 2122 bolivianos (US$300) and in Peru is 930 soles (US$267).
This type of mining is a mainly a subsistence activity and an economic alternative for single mothers. Given that they work with somebody else’s rock waste, rock strikers have a tense relationship with small-scale miners who sometimes are their allies and in other cases see them as stealing their mineral. This forces artisanal miners to work clandestinely or in far-away areas increasing their working hazards. Recently, however, there has been a process of empowerment within female miners. In Bolivia and Peru there are national associations of *pallaqueras* and there are now more women working as *socias*. An exceptional case is Goya Casas, a female miner from Huepetuhe, who until five years ago controlled 70% of the total informal gold production in the Peruvian Amazon.

The boom has also attracted investors who provide local miners with capital and machinery or who convinced them to work as their *testaferrros* (front men) to launder money. According to the testimonies, they are often from capital cities, Lima o urban La Paz, or foreigners from China. These investors have increased their presence and their power of influence in both countries attracted by the commodity boom.
4.4.2 Gold mining networks

Figure 8 Redistributive circles around small-scale and artisanal gold mining

All the people that are actively involved or that benefit from the redistributive outcomes of informal gold mining locally are part of its networks. The networks operate within a system consisting of four concentric circles that indicate the position of the actors vis-à-vis the productive activity (see Figure 8) This division is analytically useful as it allows us to see the relative contribution of each group to the working of the local economy and the redistributive system associated with the extraction of the mineral. The four circles also define the stakes that will be involved for different groups of people in relation to small-scale and artisanal gold mining – the main local source of revenue.

Proximity to the core will typically indicate higher rewards, but also greater risk when informal gold mining is in danger. By contrast, those in the periphery who contribute the
least to informal gold mining will probably earn less but will also lose much less when the activity is in jeopardy.

The first two circles are constituted by the *socios* and the labor force, including peons, female miners and indigenous people mining. The other two circles are occupied by service providers and the contractual beneficiaries. The former are the main suppliers of small-scale and artisanal gold mining. They sell work implements, cover miners’ basic needs or cater to other demands of the working population. They can be people from the mining town or nearby areas who work in restaurants, bars, hardware stores, corner stores, riding cart bikes and busses transporting the mining population or offering needed assistances with electricity and explosives. The latter, in the most peripheral circle, are those who do not contribute directly to the productive activity but who benefit from it thanks to their contractual power. These are local leaders and people living in the mining communities whose explicit or implicit consent is necessary for the activity to take place. They can receive benefits out of agreements between the community and the miners, out of the market flows and to a lesser degree, out of the revenues left by the activity.

### 4.4.3 Old practices and new resource governance systems

One of the salient *campesino* practices is cooperation, one of the most important features in all Andean communities, as it provides benefits and services that go beyond money exchange (Mannheim 1986; Bebbington 1999; Mayer 2002; De la Cadena 2010). Often manifested by reciprocal labor exchange, associativity and other obligations of repayment, cooperation ensures communal benefits, pacifies when facing tensions or opposition from members of the communities and aids other productive activities at risk.
Cooperation has also been an effective risk management strategy for miners as it helps them to compensate for the lack of capital and of technical knowledge of the different types of mining deposits.

Direct negotiation is another practice oriented towards securing benefits for the collectivity. It is characteristic of popular economies that do not trust state institutions to redistribute fairly wealth coming from their land (Wanderley et al. 2015). My research shows this practice allowed informal gold mining to avoid presenting itself as an imposition by external powerful actors. Although struggles between communities and miners over land use are common, the power of direct negotiation plays a key role in mitigating tensions, defining or updating the terms of relations and increasing individual and community benefits. This practice has also been observed in Andean communities that face the development of large-scale mining projects and push to directly negotiate with the company using their peasant or indigenous authorities, rather than leaving the responsibility to state authorities (De la Cadena 2015).

Lastly, the preservation of local ties is another important practice across popular economies, through which actors look to maximize the benefits for their extended families (Tassi and Canaviri 2015). Mining communities actively look to hire people within their close circles. Proximity is often preferred even over technical expertise (Canaviri 2015). This is also a way to keep the benefits of the activity local and to ensure the continuity of the community’s practices. The preservation of the local ties is closely connected to the coexistence of other agrarian traditions. The steadiness of agriculture, cattle and related activities is in the hands of the family and the community. By making alternation with other agrarian activities feasible, informal gold mining keeps family and dependents employed, it
protects itself from running out of capital and it ensures the continuity of other sources of income during times when mining becomes challenging (Quiroga 2002).

Despite the changes in the activity, these distinctive practices still remain in place mainly due to the limited development opportunities in gold territories and the restricted possibilities for marginalized groups to incorporate their activities into the formal economy. In absence of the state, actors in gold territories have transformed excluded environments into spaces for self-affirmation and social mobility. Miners use these spaces to contest discriminatory legal and economic structures of power by installing their own institutions (Tassi et al. 2013: 47). At the same time, given the high degree of adaptability of the activity, campesino practices have been paired with practices from neoliberalism fostering mixed organizational modes that link cooperation with exploitation, direct negotiation with hierarchical labor structures, family and close-ties-oriented organizations with market networks and the preservation of other agrarian activities with the expansion of other informal economies. This mix has sedimented into extractive institutions which have become the common sense on how to act. Together these institutions form alternative resource governance systems that rule gold territories in Huepetuhe and Santa Rosa.

Extractive institutions are reproduced within the context of “popular economies”. Veronica Gago (2017:14) has defined them as a type of articulation of economies that mix logics and rationalities that tend to be portrayed as incompatible. Popular economies informally produce, exchange, commercialize and consume goods and services based on common practices, and look for engagement with the market only in so far as it can accommodate such practices (Quijano 2004; Tassi and Canaviri 2015). The popular element in these economies is based on the strategic composition of microentrepreneurial elements
that assort alternative formulas of reciprocity, contractual formats, as well as overlapping family bonds and loyalty linked to closed networks (Gago 2017: 15).

4.4.4 Unintended effects

Informal resource governance regimes operating in Huepetuhe and Santa Rosa have legitimized the intensification of the informal gold exploitation by making of extractive institutions a quasi-hegemonic form of rule. This was possible due to the development of high-impact networks that reach different groups from society and state actors in mining towns and nearby urban cities. In doing so, extractive institutions ended up generating two key effects – provision and labor opportunities – that, although unintended by its participants, become the best examples of the functionality of extractive institutions. These institutional byproducts are able to achieve outcomes beyond subsistence, such as upward mobility, which are unreachable for excluded groups by formal means. Moreover, the success of these effects over the small-scale and artisanal mining networks result in the building of a competitive regime alternative to the state. This is, I argue, what explains its remarkable support and resilience.

Provision is understood here as the capacity of small-scale and artisanal gold mining’s networks to make available resources needed by local actors to improve their material welfare. Labor opportunities, on the other hand, is the capacity of connecting locals through labor networks that allow them to acquire useful practical skills to improve their social status and living conditions. Provision and labor opportunities operate simultaneously but follow opposite trajectories. Provision irradiates its benefits from the core – where the socios work – towards the outer circles. By contrast, labor opportunities operate like a centripetal force,
attracting those in the peripheral circles towards the core. Different sets of actors can increase their material and social capital as they assume a more prominent role in the development of informal gold mining.

The first type of benefits arising from provision is a consequence of the basic infrastructure needed for resource exploitation. Prior to beginning their activity, in the exploration phase – when miners assess the quality of the deposits and the fundamental conditions for exploitation – they start building infrastructure to enable the activity. At this time, it is common for miners to hire local labor force to open rustic roads or paving connecting roads between previously isolated towns. As the exploitation proceeds and if the activity becomes lucrative, they will progressively invest in enabling other basic resources such as light or water, which then end up serving locals too. Although these are low-cost operations, the state has no incentives to undertake them given the distance and the low economic returns expected. These activities are usually risky and lack planning, but they are life changing for local population.

Secondly, as the activity evolves, new benefits from provision arise as a way to pacify communities where mining sites are located. Negotiations between miners and communities can include a rent, as well as help from miners to build or to give maintenance to public establishments, to finance communitarian or religious events. Depending on the geographical area, leaders will also ask for needed essentials and labor force to continue with local productive activities.

Thirdly, there is indirect provision. The needs of the mining population and the new income flows attract services that then become available in towns that were previously not perceived as profitable markets due to their location and size. This is the case of public phones, restaurants, bars, hardware stores, food and clothing stores and new routes of public
transportation. Multiplier effects coming from the decentralization of markets are a common global feature in countries where informal mining expands (Bryceson and Yankson 2010). These benefits can get extended to nearby urban areas.

Additionally, where small-scale and artisanal gold mining has been formalized, as in Bolivia, miners pay a tax equivalent to 2 percent of their gross revenue – which benefits provincial municipalities, yet it is well known that miners frequently avoid this duty (Poveda et al. 2015).

Benefits from provision help to create ties, however, they alone are insufficient to build and maintain strong relationships and as a consequence, they do not favor resilience on their own. This is the case of large-scale mining projects often owned by transnational corporations. These corporations have invested almost two decades in corporate social responsibility programs giving important material and economic benefits to Andean communities, and yet they have failed to prevent local opposition to their activities (Bebbington 2012). The other effect that contributes to crystalize bonds and to ensure the continuity of informal gold mining is employment opportunities. Employment promotes upward mobility by granting people in the network opportunities to build material and social capital.

Upward social mobility takes places as locals go from peripheral circles toward the center. A previously contractual beneficiary (fourth circle) can ascend to be a service provider (third circle) by starting to sell food to the miners and workers. A service provider might ascend to become mining labor force (second circle) or even be invited to become a socio (core) as he or she specializes in techniques needed for particular informal gold mining deposits, and so on. Not all the people in the network are low income; on the contrary, we
find a mix of skills and capital involved. Again, the networks are not fair, but they manage to create opportunities that are economically beneficial for different people.

In the remaining of the paper I use snapshots from my ethnographic data to illustrate the elements that constitute the local gold governance systems in my case studies.

4.5 The functioning of informal gold regimes

4.5.1 Land access and conflict resolution

Organizing with all the people here was very difficult, you have people from different parts, you have bad and good people, you have poverty and people who want to take advantage of the situation, you have to trust them...but that was easier than waiting for the state to do something for us...This is why when we were persecuted everybody showed up... – miner from Huepetuhe (interview # 32, 12 June 2015).

According to Peruvian law, miners must have the “right of use”, a certification granted by the state allowing them to work in a determined area. Due to the lack of coordination between different state offices, however, many people can hold rights of use on the same territory, which might cause conflicts at the local level. In other cases, land tenants do not hold property rights, and this becomes an important impediment for miners to legalize their activities.

These problems have impeded miners to regularize their situation while also hindering state’s regulatory power in the area. On the other hand, the challenges arising from land use have fostered the rise of governance systems based on agreements made by local actors. This system is sanctioned by the common acknowledgment of the history of land use. This means that, regardless of whether an actor has property rights over a specific area, if it
is socially acknowledged that this actor was in possession of a piece of land for a long time, a miner interested in working in that area has to pay that actor a rent. A citizen can have rights over multiple areas in the region as long as her peers acknowledge that the citizen has been working there. This right is widely acknowledged by citizens, peasants, traders and local authorities.

This system differs from classic property rights in that it gives priority to actors that have been working in the area and it allows for simultaneous activities such as agriculture and artisanal mining to take place in the same piece of land. There are also working agreements where actors play multiple roles. For example, in Huepetuhé, landowners negotiate land access with miners either in exchange for a rent or through mixed arrangements that include their participation as investors or workers. In many cases, communities themselves have shifted to mining. When this happens, they invite other experienced miners to teach them techniques to improve gold recovery or to collaborate with machinery. By combining tenancy with participation in mining activities, these agreements foster collective learning, risk mitigation and resource pooling.

In order to work within a circle of trust, miners reinforce agreements and ties through *compadrazgo*, the action of becoming family-in-law, a very common Andean tradition (Pachas 2011). Miners look to marry community members or relatives of their *socios* to strengthen local links. This is a way to ensure full commitment with the activity and the increase of family earnings. The strengthening of ties also fosters accountability. Proximity and participation ensure that community members are aware of the amount of gold extracted and push for better deals in times of bonanza – either in the form of rents or in the hiring of more members of their families.

“I am convinced that the state wanted Madre de Dios to be like it is now. It was them
[state officials] who granted rights of use to foreigners and rich people who then came to disrespect our agreements” (interview #40, 1 July 2015) told me a miner in Huepetuhe explaining some of the current sources of conflict in the area. As the state started granting rights of use to several actors, disputes over land tenancy and use increased. Conflicts over land have favored the rise of extortions by powerful foreign miners against local communities and miners who cannot prove they have the legal permits to work in a particular area. The fact that the information regarding use of land is not public and the Peruvian government does not have maps on local land access agreements available creates more uncertainty and increases the probability of land disputes.

Yet, community members rarely denounce mining activities or abuses in Madre de Dios. Even in cases when they feel pressured or even harassed by miners, they opt to resolve the conflicts through informal agreements. The main reason for this is that, often, community members are also active participants in mining activities, so they would rather settle for an unfair deal than lose the many benefits associated with mining. “…Who should I complain to? The government who thinks everybody living here is a criminal?” (interview # 32, 3 July 2015) told me a citizen from Huepetuhe and member of the local federation of farmers. When interviewing other community members who decided to call the state to solve disputes regarding tenancy or pollution, they told me that, rather than following state norms, local officials asked them first about the agreements they had with the miners.

Local small-scale miners in Huepetuhe have chosen to leverage the collective power of their local associations in order to publicly discuss issues affecting the activity while also differentiate themselves from other mining actors working in forbidden areas such as natural parks. Members of these associations do so by speaking in local media, requesting meetings with local authorities and publicly advocating for alternative forms of mining regulation or
denouncing cases of exploitation in forbidden areas such as natural parks (commonly known as “illegal mining”). The strategy has made easier for local citizens to identify the miners and pose claims directly to their associations. Moreover, mining associations have the capacity to draw the attention of local officials to local issues of a more general character that concern the local citizenry at large.

A similar type of land access system regulating interactions between community members and miners can be found in Santa Rosa, although the level of organization is substantially higher here. This has resulted in the negotiation of better deals and greater degrees of commitment between the parties involved. For example, community leaders in Santa Rosa have closed deals almost ten years ago with three cooperatives to exploit mining deposits on their land. These agreements were signed after discussions and voting processes that included community members and local leaders. The community negotiated a rent from the miners, who also committed to help with finishing building the community center. Additionally, they negotiated the hiring of some of their members – mostly their young sons – to work in the mines.

The presence of the state here is also secondary. In the voting process to decide whether the community supported the presence of a gold cooperative for example, local state officials acted as observers to testify that the decisions were made voluntarily and that there was willingness to comply. The community and miners signed documents for their own records. However, the most important agreements are not in paper, and the state does not certify them. Several of the contributions in terms of provision of goods or employment commitments are informal and enforced through daily interactions and through the participation of community members in mining activities. As a result, miners are less concerned about having official documents and more about getting the “permission” of
The problem is that the more they grow [miners] the more we see mining waste and landslides. I am worried because poor young men are often the ones involved in accidents…the old ones, the socios, they are safe…”—local citizen from Santa Rosa (interview #84, 1 November 2017).

Often, there are cases of disputes over soil exploitation, perceived pollution and labor accidents. Around 22 percent of the total number of conflicts in Bolivia are mining related conflicts (including large-scale conflicts), yet these are most of the time solved in negotiations with the community leaders or through gold mining federations (Aramayo et al. 2014). Local citizens commonly solve these disputes with immediate compensations or with further agreements involving more labor opportunities. As in the Peruvian case, community members know that mining is temporary, so they prefer to re-negotiate the terms of agreement locally. The difference in Santa Rosa is that, given the high level of community organization, local citizens are able to make credible threats to the miners and hence have more leverage in the negotiation than in Madre de Dios.

Additionally, a common enemy that communities and miners face in Peru and Bolivia are thieves or clandestine miners. These can be unauthorized panners – sometimes called shicapa (the name of a bird in Quechua associated with thieves) – that come in the middle of the night to areas that they identify as rich in mineral or miners working with rock waste or jukus (in Quechua, flying animal). There are also more organized mineral thieves, working in teams of 10 or 20 people, who look for operating mines to rob them. In both countries, these actors are socially condemned but, at the same time, they are deeply assimilated in the local culture. There are songs, phrases and jokes about their presence, which depict them as street-smart people who are, nonetheless, unwilling or incapable to follow the duties that mining requires in those regions. They symbolize people in a more precarious situation...
because of their social isolation.

4.5.2 Provision of goods

Figure 9 Photos of the mining camps and mining tailings in Huepetuhe, Madre de Dios (Peru)
“They pay me and others [peons] in gold, I can buy mining implements in Mazuco and pay with gold, I can buy food with gold… the miner that works here offers suction dredges services for gold…We breathe gold” – mining worker from Huepetuhe (interview # 90, 1 May 2017).

Mining in Huepetuhe offers two views to visitors. When going to the hills, the panorama is all brown and muddy (Figure 9). It is really easy to forget that one is in the rainforest when looking at the tailings being disposed in the rivers, covering the soil and all kinds of plants. This is the image that government and international agencies have showed everywhere to illustrate the dangers of the activity and to push for sanctioning. On the other hand, going downhill and walking by the unevenly paved grounds of Huepetuhe, it becomes evident that despite the recent efforts of the state to contain small-scale and artisanal mining by labeling it as illegal, the activity does not operate hidden from view. It is visible and it is
an entrenched element of the local scenery.

In the last decade, informal gold mining has contributed with more than 40 percent to the Gross Domestic Product (GDP) of Madre de Dios and the region now ranks below the national average in terms of poverty and above average in terms of human development (Mosquera et al. 2009). The contribution of gold mining can be seen in the very rustic roads opened by the miners as shortcuts to get to the deposits faster; in the higher quantity of produce that now arrives to Huepetuhe; in the water that, although of restricted access, it is now more easily available; in the new paved areas and in the number of new businesses opened. Nearby the main square of the town, a big sign of the municipality exhibits in its coat of arms a panner in the river, and next to it, some photos of the new local benefits – such as, street lightning and road maintenance – that cooperation with the miners has made possible. Though citizens still live in precarious conditions and many lack accesses to basic services, all the limited progress these towns have accomplished is provided through, and dependent on, informal gold mining.

Gold mining cooperatives in La Paz produce about US$ 1 million in mineral per year, which has been reflected in an increase in the level of employment and quality of life of locals (Viceministerio de Cooperativas 2016). Just like the Peruvian case, the isolated community of Santa Rosa still has very limited access to basic services. The closest hospital is at least three hours away. Yet, the improvements in living conditions generated by small-scale and artisanal gold mining are undeniable. Miners opened rustic roads that are now used by busses and traders to bring in goods and transport people more quickly to town. When the river is in spate, miners are in charge of giving maintenance to alternative roads at the community’s request. Although the state’s efforts to reach the periphery are more significant in Bolivia than in Peru – the government has built brand new soccer fields in several nearby
small towns – it is evident that, in terms of provision, small-scale and artisanal gold mining has taken the lead.

“We, the ones that are changing things here, we are the agrominers” – says a community leader who also participates as a socio in a cooperative (interview # 78, 28 October 2017). The agrominer is a campesino that starts wearing the helmet, but never leaves the shovel (Canaviri 2015). Agrominers, as important members of the community, make sure that the cooperative prioritizes hiring local labor force and that the profit from mining remains locally redistributed. The presence of agrominers is a guarantee for communities of constant provision of benefits and of the defense of local interests. They act as facilitators and providers (Marston 2019). In Santa Rosa, as part of the local agreements, during sowing season for example, miners have helped the campesinos by giving them seeds and pack animals needed to prepare the soil.

Gold mining cooperatives with representatives in the legislative or with close ties to the MAS (Movement Towards Socialism) have used their leverage to both increase their profit and be exempted from regulations and to pressure the executive through the Deputy Ministry of Cooperatives for resources, such as paved roads, water and electricity access, community centers and even mini stadiums, that end up benefiting the local community. By contrast in Peru, provision is often covert. Nevertheless, miners in Peru also have the support of the subnational officials who frequently partner up with them by restraining themselves from enforcing the regulation and allowing the traffic of mercury and gas to mining towns. In the last two regional elections in Madre de Dios all of the candidates declared having mining concessions (Ojo Público 2018).
4.5.3 Employment opportunities

Figure 10 Indigenous miners at the back and a modern panner in the front. Sculpture from Puerto Maldonado, Madre de Dios (Peru)

Do you think big companies or mister engineers take motorbikes like mine? Do you think they transport like us? No, they import everything, the people, their machines… They only have opportunities for big people like them… In the same way, the only ones that could create opportunities for us, had to be us – kart bike driver and former miner from Huepetuhe (interview # 21, 12 June 2015).

As this quote and the statues in Madre de Dios remind us (see Figure 10), miners have a sense of pride in having been able to survive and develop alone. Miners’ achievements are also recognized by the youth who, despite being aware of the problems associated to informal
gold mining, see miners in the best position to generate trickle-down effects and mining as the activity with the highest potential to produce economic linkages. Every summer young and middle-aged people from Andean regions migrate to Madre de Dios. It is very common to hear miners exchange words in Spanish mixed with Quechua.

Although part of the incentives to work in informal gold mining comes from the lack of opportunities, a less explored aspect that also drives the continuity of the activity is the aspirational factor. Gold mining acts as a springboard that allows people to pursue different life agendas without having to relocate to urban areas or give up one’s own background. Those looking to stay in the sector are required to work in arduous and frequently exploitative conditions until they can gather enough experience or capital to participate as socios. Yet, interviews revealed that this is not the aim of most of the workers. Several young people try learning as much as possible to become mobile skilled labor force and work on their preferred mining site or negotiate better deals. Others take advantage of the quick cash that mining offers and then leave. Others try focusing on the operations used in informal mining to be able to offer specialized services to the miners – such as the maintenance and design of certain implements or the supply of fuel, explosives and mercury.

As we move away from the core of the activity and its labor force, we see that service providers (i.e. restaurants, gas stations, hardware stores, corner stores, internet and calls café, public bathrooms, buses, karts, bars, brothels and more) along with the communities members that are the contractual beneficiaries also gain from being included in the gold mining network and still have the possibility of social mobility. Schedules are more flexible in these circles, but the rewards are much lower too. The circles encompass foremost the mining towns, but they extend to neighboring towns and to urban centers. All the businesses associated with gold mining selling tools, implements, machinery and gold stores in the
capital of the region, Puerto Maldonado, indicate how far the money from gold gets redistributed and reinvested.

On the other hand, in Bolivia labor opportunities arise in a more structured context, as part of the commitments between community and miners. This is reflected in the number of people hired, but also in the scope that gold mining has beyond mining towns and rural areas.

“You know why all the mothers come out to support us? Because they are our families, we are part of them… and look how we grow…” – says proudly one of the *socias* of the mining cooperative in Santa Rosa, La Paz (interview #82, 1 November 2017). The lady cannot remember what she used to do before entering into mining. All she can remember are the times when there was not enough money to support the activity and they had to stop mining. Things have changed a lot ever since. The cooperative has been running for nine years and although they still do part of the work artisanally, they now have useful infrastructure and tools – such as reservoirs, mining sifters, crushing machines and a small truck. The expansion of the activity is also evidenced in the high numbers of families, approximately 144,000, dependent on cooperativist mining in the region of La Paz (FERRECO and FECOMAN 2016). In La Paz, gold mining employs 128,000 people and around 300,000 indirect jobs in all Bolivia (Francescone and Diaz 2013).
Figure 11 Photos of a mine and a mining camp ran by a mining gold cooperative in Santa Rosa, rural La Paz (Bolivia)

Source: Pictures taken by the author.
The honking of a car interrupts the work at the mining camp (see Figure 11). It is a second socio who has been commanded to bring implements, food and cigarettes from the local community. Prior to becoming a miner, this socio was working cultivating the land and from time to time doing some construction work. When a group of miners came to talk to the community of Santa Rosa to work in the area, people were hesitant. He was not. He had heard this was already happening in nearby areas and he knew miners were bringing positive changes to the communities. After a while, he was working in the mining site as part of the agreement made between the community and the cooperative.

Before leaving for the local community, socios take a couple of minutes to eat lunch with the workers. The sister of one of the workers, a cooker in the mining camp, serves the food – fried lamb with boiled potatoes, both from the community. Everything they eat comes from the local community. “…And do you see these three cooperatives? The community always comes and asks for whatever they need to us. They never go to the municipality… Everything has to come from us” – complains one of the socios while eating (interview #83, 1 November 2017). His cynical tone of voice reveals that he himself is clearly conscious of why the community does that. As a local, he never saw any authority coming down there.

After eating, the socio drives downhill to the community. Once in the community, he stops to stack the car up with all kinds of things, from tools to food and beer. In such a small town in the middle of the mountains, the number of corner stores, public bathrooms, restaurants and bars calls the attention. As in Peru, service providers and contractual beneficiaries – that is, people in the third and fourth circle – have miners as their most important clientele. The socio buys from the local community and he also takes advantage of the trip to hire some local services. He asks acquaintances to bring some hoes and other instruments from the local hardware store for gold mining and requests an electrician to come
to the mining camp. The last stop is to leave some money to his parents. He switches to Aymara to say goodbye and he promises to come soon enough.

In Santa Rosa there are also small gold stores. They do not pay as much as gold stores in the city of La Paz, but if miners are willing to lose some money in exchange for instant cash, they have that option. Due to the distance from urban areas, this alternative is often taken advantage of. Both socios and workers do not need to leave the town to spend their leisure time. They go to their favorite restaurants and bars in the community and surroundings.

For those who managed to save up their gold share until the end of their workday, there are now more buses than ever to take people to La Paz. In El Alto – located at the entrance of La Paz – we can see several gold stores with lines of miners. As in Peru but at more sophisticated level, in Bolivia the extension of the third circle reaches urban areas and El Alto is probably the biggest beneficiary of miners’ reinvestment (Tassi and Canaviri 2015). There are different streets in El Alto completely dedicated to the small-scale mining sector. These businesses are owned by former miners or by the miners’ relatives, most of them with Quechua or Aymara names. The market feeds on itself.

4.5.4 The preservation of traditions

Additionally, miners in both towns play a key role ensuring the continuity of local traditions. Their participation reaffirms their status in the communities while also actively merging cultures, and agriculture-linked practices with others from mining. Local citizens often choose members of mining associations in Huepetuhe as padrinos (godparents) – a title
given to wealthy members of society in Andean culture to put them in charge of organizing the celebrations or buying the needed clothing and drinks. Thus, they participate in the festivity of Saint John – the most important festivity in the Amazon – by bringing artist and financing the celebrations. They do the same during the local festivities of the town anniversary, which are often themed around the contribution of mining to the communities. Likewise, when celebrating other festivities such as Virgin of el Carmen, local citizens organize parades in Huepetuhe where they are dressed up with typical Andean clothes associated to farming, yet many men hold their helmets, as to symbolize their double identity.

In Santa Rosa, there are also combined celebrations of mining and agriculture festivities. In times of sowing, planting and paying back to Mother Earth (Pachamama in Quechua) the entire community unites. Several rituals associated to production and fertility link agriculture and mining. Every year between February and March, miners payback to el Tio – a devil-like deity living in subterranean mining sites – and Pachamama. Likewise, miners and locals actively participate in the Anata – a celebration for the gifts and abundance that Pachamama grants, which commonly takes places in mining regions of Bolivia. During the Anata and the Ch’alla – a harvest festivity, also celebrated by miners in Southern Peru – miners dance in the streets and bring alcohol, flowers, cigarettes and coca leaves to the mines. They then organize a party for the community with local bands to thank for the goods received.
4.6 Conclusion

This paper has showed the consolidation of alternative resource regimes from below and outside of state control. The enhancement mechanism of this alternative governance regime has been its capacity to bridge particular knowledges with outcomes otherwise unattained, such as development opportunities, without requiring actors to abandon their cultural practices. In highly unequal and exclusionary societies, this type of institution has been crucial to ensure the survival of many marginalized groups in different contexts. This explains the high level of support to the activity despite its many fallouts.

When reviewing the process of empowerment of small-scale and artisanal gold mining extractive institutions, I have found that a key element has been their enduring capacity to offer a competitive alternative to excluded groups. Informal governance regimes have helped local communities, first, to survive state absence and, later, to resist state’s attempts of regulation. This capacity has developed from the crystallization of key practices from the campesino economy combined with more recent neoliberal ones. When these practices became normalized, they produced unintended effects – mainly provision and labor opportunities – that enabled social mobility and other goods that the state cannot provide for these groups. Through an analysis of the distributive circles around informal gold mining, I showed the ideal types of actors involved according to their contribution to informal gold mining’s extraction process and the redistributive outcomes associated to the activity.

Small-scale and artisanal gold mining’s extractive institutions grew in the context of popular economies – informal economies which look to provide alternative livelihoods often relying on collective strategies. This, of course, does not mean that informal governance is fair, conflict free or absent of power dynamics. On the contrary, the intensification of
extractivism fostered by the last commodity boom has brought up more issues of inequality and pollution. However, even with these problems they are still a better option materially, and socially for marginalized sectors. Thus, despite the different status of small-scale and artisanal gold mining in each country and the differences in the levels of sophistication of miners’ associations, in Peru and Bolivia informal gold mining’s institutions have produced comparable effects.

A further possible step in this line of research would be to look at how these institutions are then projected into the political arena. As they grow, what is the impact of these informal resource governance institutions for democracy and state development? In similar cases, such as the coca growers in Bolivia, communities formed social movements that make political alliances and have a key role in shaping antidrug policies (Farthing and Kohl 2010) and, in the case of soybeans in Argentina, local and provincial governments have tried to bring down peasants’ collective action attempts against the use of genetically modified soybeans (Lapegna 2016). Beyond Latin America, in Southeast Asia there is mixed evidence of artisanal miners making alliances with authorities (Verbrugge 2015), while in other cases, they have been victims of land control and racialized policies (Peluso 2017). Addressing in which cases informal resource institutions can effectively impact national governance can help us understand the level of empowerment of peasants in these new scenarios.
Chapter 5: PAPER 4. With the State Against the State: Informal Gold Miners, State Fragmentation and Resource Governance in Bolivia and Peru

5.1 Introduction

During the commodity boom in the 2000s, the number of people moving into informal gold mining dramatically increased in the Andes. Currently, estimates say that between 350,000 and 500,000 citizens in Bolivia and Peru are dependent on the activity (The Artisanal and Small-Scale Mining Knowledge Sharing Archive 2017). This uncontrolled expansion exemplifies a challenge common to resource-dependent economies: Fast-rising demand for a number of internationally traded commodities has boosted the rapid growth of these economies while also exacerbating existing governance challenges, such as the empowerment of informal groups that compete for the control of key resources. Often impoverished, these groups work with commodities ranging from quinoa to palm oil, coca leaf or gold, and are in several cases capable of influencing resource governance outcomes (Farthing and Kohl 2010; Walsh-Dilley 2013; Verbrugge 2015; Peluso 2017).

The case of informal gold miners in Bolivia and Peru is emblematic in this sense, and the fact that the two states took opposite strategies to address the problem makes the comparison particularly fruitful. Over the last twenty years, Bolivia has adopted a socio-
politically inclusionary approach, leading to the political incorporation of several social movements and other organized groups (Madrid 2012; Anria 2018). This includes informal miners, to whom the MAS government granted political representation. On the other hand, lack of representation and marginalization of social demands have characterized the Peruvian political scene during the same period (Cameron 2011). As such, Peru recognized informal mining as illegal and opted for a coercive strategy against them. Despite these crucial differences, the outcomes in the two countries were surprisingly similar. In Bolivia, miners blocked most of the regulatory reforms and persuaded the state to increase the budget devoted to microcredit and training. In Peru, the government was forced to derogate punitive decrees against informal miners and ultimately agreed to negotiate legal changes to facilitate formalization. Why and how were informal miners able to influence national resource policies? If different patterns of state-society relations fail to explain miners’ ability to shape policy outcomes, the explanation must be sought somewhere else.

Most of the studies in resource-rich economies in Latin America have focused on state-elite relations to understand resource governance outcomes during commodity boom times. In these accounts, local communities or non-elite groups have a limited role (if any), as they are mainly contesting the impacts of extractivism without providing any input into policy reforms. My study adds to the scholarship on resource politics by shedding light over the collective capacity of action of an overlooked societal actor – informal miners – who contributes to the externalities of extractivism and whose power of influence on resource governance has not yet been fully mapped in the region. Building on approaches looking at pre-commodity-boom state-society relations, I integrate the participation of state officials in the exercise of contention from informal groups and outline the mechanisms through which those at the bottom can shape resource policy outcomes.
I argue that by combining informal strategies and state resources, collectively and in cooperation with local authorities, informal actors like gold miners can delay or block state initiatives and shift policy outcomes. At first, miners engage in social mobilizations and use local authorities’ forbearance to preserve their productive activity as a minimum goal. As the local state-miners alliance consolidates, separation between state and society becomes blurred, until local officials openly defy the central state and take the side of the informal mining sector against national regulations. Subnational officials become representatives of miners’ interests and, in some cases, miners themselves run for office and get elected. Massive mobilizations and public exposition of the state’s internal contradictions legitimize miners’ demands and force the central state to back down and directly negotiate with them.

This paper contributes to the literature on state development by showing how the institutions of resource-dependent states contain contradictions that would later allow room for resistance against centralist forms of resource governance. Through a disaggregated analysis of the branches of the state, I find that the fracture between central and peripheral branches within the state in Bolivia and Peru has created opportunities for the formation of informal pressure groups that exert bottom-up pressure with the support of local governments. Recent political processes such as decentralization that aimed to increase state control, but which failed to fundamentally change intergovernmental relations, further deepened cleavages around resource governance.

My research for this paper builds on 120 semi-structured interviews conducted between 2015 and 2017 in rural La Paz and Madre de Dios – the largest gold mining communities in Bolivia and Peru, respectively – and in the countries’ capitals. Interviewees were national and local-level actors, such as policy makers, regional authorities and mining leaders. I put forward a comparative sequential study of the two cases. First, I outline the
conditions that open a window of opportunity for excluded groups to influence policy outcomes. Second, I extend the work on forbearance and its consequences by showing how it exposes the conflict of interests between central and peripheral state actors. Third, I discuss the empowerment of informal pressure groups. My theory explains why, despite facing different state strategies of control, informal groups are able to take over local representative institutions and use them first as a shield against central state regulation and then as a springboard to push their agenda. Although the rise of informality poses a governance challenge, I conclude that organizing by informal workers also provides an opportunity for policy improvement in developing countries.

5.2 State-society relations in the periphery and the pushback against the central state

5.2.1 Beyond the focus on the elite

Scholarship on commodity-driven economies in Latin America agrees in that the pervasive effect of resource wealth on state development is contingent on the sociopolitical conditions prior to the commodity boom. Resource politics are a decisive factor influencing the capacity of the state to take advantage of favorable economic contexts. In her path-breaking book, Terry Karl (1997) argued that elite pacts between state officials and the business class in Venezuela weakened the possibilities of building democratic institutions in the long term. Oil revenues served to favor compliance and coopt opponents, and when oil prices went downs, oil income served to enhance state repressive capacities against
dissidents. More recently, Kurtz (2013) has argued that resource abundance can enhance state institutional development where labor is free and elites form a cohesive collective that did not see state’s growth threatening their privileges. Similarly, Saylor (2014) explained that where elites perceived their interests incorporated in state-led development projects, they contributed and pushed the state to reinvest the incoming revenues effectively. By the same token, when they saw their power threatened, economic elites have put forward different strategies, including taking over institutions to have direct input into law-making processes and outputs or lobbying the state, to impose a favorable regime and exclude competing actors from participating in it (Durand 2015).

The underlying assumption in all these cases is that elites are a key social actor influencing resource governance in commodity-driven economies. On the flip side, the participation of non-elite groups from society has been conventionally reduced to contesting the externalities of extractivism. Thus, authors have studied how social movements against the privatization of key natural resources in the Andes have exposed the limits of the neoliberal economic model (Bebbington 2012), how transnational coalitions helped local communities to gain collective action power to uncover the environmental and social risks of extractivist projects (Haastard 2012) and how popular mobilization has led to institutional reforms favoring redistributive initiatives (De Echave et al. 2009; Arce 2014) and the creation of participatory spaces in resource-related management decisions (Jaramillo and Wright 2015; Perreault 2015).

Challenging this classic division of roles, I look into the state-society relations with non-elite actors that partake of extractive activities and that raise competing claims over resource governance. This is the case of informal gold miners who, despite their marginality, have power of influence over national mining governance from the bottom-up.
One of the few studies working on this topic has been that of Baraybar and Dargent (2019). They argue that state’s conventional response toward informal mining has been “standoffish”, that is, inaction regarding a problem due to the lack of interest on the issue or the high costs action would entail. Action is predominantly triggered by external pressure from the activism of international environmentalist groups or domestic demands. In their argument, different state responses are explained by the degree of organization of societal actors. In Bolivia, the high degree of organization of mining cooperatives and their close ties with the government have resulted in state’s limited enforcement efforts. In Peru, where there is a lack of pre-existing organized political actors around informal mining, the state did not prioritize the phenomenon. In another article, one of the authors has argued that state’s regulatory efforts were feeble in Peru until cooperation from different groups of civil society pushed for law enforcement, leading to a more proactive and effective state strategy against informal mining (Dargent and Urteaga 2016).

This argument advances in situating informal miners as political actors and state contesters of resource governance. It also explains how, despite the similarities in the cases, precedent sociopolitical conditions produced different state responses. Yet, the story seems incomplete as it does not account for two related factors: local dynamics and miners’ strategies and demands. By only centering the attention on national-level dynamics, our range of analysis is limited to the official position of the central state. We cannot see internal tensions influencing state action. This creates the illusion of a coherent state whose decisions are aligned with the interests of its representatives throughout the territory – which is rarely the case in the Andean context. Neither can we observe how subnational groups tackled by mining regulation respond politically to the central state actions.
By contrast, a bottom-up perspective shows us a more complex and dynamic picture of state-society relations where both state and non-elite societal actors mobilize resources and develop strategies to further their interests. Contrasting the image of standoffish states, this study looks at key moments of reform in Bolivia (2009) and Peru (2010) where new rules for informal mining are discussed with the aim of enhancing state’s power of control. I disaggregate the behavior of the state at two levels – the national state (represented by central state authorities) and the subnational state (represented by regional and local authorities) to see the degree of coordination between state officials and their positioning vis-à-vis informal mining. This allows me to study how the conditions previous to the economic boom impacted the capacity of action of actors in the periphery and their abilities to comply to or contest central state mandates.

5.2.2 State fragmentation: an opportunity for bottom-up change

I argue that in unequal societies, the lack of coordination between the central state and the periphery provides an opportunity for those at the bottom of society to push for institutional changes. This is particularly true in the case of Andean states which still struggle to provide basic services and establish control evenly all over the territory (Mainwaring 2006; Gray Molina 2008; Paredes 2013; Krupa and Nugent 2015). The effects of this lack of coordination and abandonment are twofold. On the one hand, regulations are generally ineffective, as they lack both knowledge of the local context and resources to be enforced (O’Donnell 1993). Hence, forsaken peripheral actors enjoy a high level of autonomy. On the other hand, the local state struggles to separate its interests from local society’s, and as a
consequence the boundaries between the two are blurred. Given that the interests of local state representatives are not necessarily aligned with those of the central state, the outcome of the core-periphery divisions is a state that embodies a set of internal intersecting and contradictory forces (Migdal 1988; Gupta 1995).

Center-periphery fragmentation in countries such as Bolivia and Peru were intensified by processes of decentralization and an important immigration wave in the mid-1990s that brought up new political actors from the rural world (Tanaka 2002; Kohl 2003). The central state, however, was not able to use devolution processes to reform intragovernmental relations. Although decentralization granted regional and municipal authorities more decisional power, the central state did not engage in significant efforts to integrate their feedback on governance. The state continued to maintain its distance from the periphery and the most important decisions were still made unilaterally by the central state (Toranzo Roca 2006). In Peru, neoliberal reforms weakening the state apparatus and bureaucratic restrictions imposed over regional governments widened the gap between central and subnational authorities further (Tanaka 2007). Traditional national political parties in both countries were also unable to adapt to the new sociopolitical reconfigurations. Due to their centralist structures, national parties had no success in recruiting local leaders or in adapting their political programs to the new local demands (Vergara 2016). This led to a process of delegitimization of the political establishment, which ultimately resulted in the collapse of the political system in Bolivia and Peru (Mainwaring 2006).

Without clear strategies of articulation of intrastate institutions and no leadership from national political parties, regional agendas have further detached from national ones. Motivated by the political vacuum and the new powers of subnational state offices, in Bolivia and Peru independent coalitions and members of urban and rural associations acquired a more
prominent role in local politics (Postero 2007; Tanaka 2007). Thus, decentralization in Bolivia did not contribute to facilitate state’s penetration of the hinterland, but on the contrary, it led to “the ruralization of politics” – where the new political spaces served to empower actors from the rural world (García Linera 2006; Zuazo 2012). In Peru, where civil society is less organized, processes of devolution also created incentives to strengthen regional identities and loyalties. New independent forces emerged in every region with political programs distant from that of national political parties (Zavaleta 2014).

The new political spaces exposed important cleavages around resource governance. On the one hand, decentralization empowered local authorities with more competences over resource management and revenue distribution. On the other hand, this opened a window of opportunity for new actors with various and conflictive claims on resource governance and profit redistribution (Arellano-Yanguas 2011; Bebbington et al. 2012). As in other commodity-dependent economies in the Global South (Verbrugge 2015), instead of contributing to positive institutional arrangements, decentralization in the Andes deepened long-term institutional uncertainty and exacerbated conflict about who has legitimate power of decision over local governance.

5.2.3 Forbearance and beyond: the formation of peripheral coalitions and their challenge to the central state

The persistence of center-periphery fragmentation posits a dilemma of authority to local officials: Who they should respond to – the central state or the local population. Although earlier studies assessed the inability of central states to enforce laws evenly as a
sign of institutional weakness (Helmke and Levitsky 2004; Levitsky and Murillo 2009), scholarship focusing on the agency of officials provides a different view. There are instances in which unevenness can be explained as the result of selective enforcement given the disagreement of bureaucrats with the laws (Mahoney and Thelen 2010), their reinterpretation or adaptation (Tsai 2006), or the prioritization of certain policies over others in light of limited resources (O’Brien and Li 1999). In the latter strand of literature, the concept of forbearance – the intentional nonenforcement of the law – stands out, as it highlights the willingness of authorities to be lenient towards infractions if it brings redistributive benefits that they themselves are unable to provide (Holland 2017). What distinguishes forbearance from other cases of nonenforcement is the political intent to cater to the demands of the poorest sectors in the absence of welfare provision.

The concept forbearance is useful as it illustrates the sociopolitical consequences of how local officials decide to resolve authority dilemmas; facing inadequate social policies, they choose to accommodate citizens’ claims as they can. I use forbearance as a point of departure to investigate peripheral political interests that are incompatible with the central state’s goals. Since natural resources constitute a key source of revenue for developing nations, forbearance on mining regulation is particularly costly for the central state. Yet, during the commodity boom, local officials tend to collaborate with informal resource groups because effective regulation exceeds their enforcement capacities. Moreover, leniency to informal activities legitimizes officials’ authority in the face of a highly influential sector of the population and it is electorally profitable (Poveda et al. 2015; Damonte 2018; Holland 2017).

However, in contexts of exclusionary resource governance policies, I contend that leniency to informal activities is only one of the (in)actions signaling the rise of alternative
means of interest articulation. Given that local informal actors often participate in semi-legal or illegal practices, the continuity of their activity still depends on their relationship with the authorities. Thus, they will actively seek to get officials to comply with their demands by hiring intermediaries (Hummel 2018), supporting political campaigns (Gingerich 2013) and, as here described, mobilizing popular support. Constant engagement and cooperation over time consolidates loyalties and commitments between informal actors and officials.

The relationship between local officials and informal groups cannot be reduced to pork barrel politics. Neither is this a case of warlord politics (Migdal 1988) where coercion becomes the driver of compliance. Quite differently, the main source of local loyalties against the central state regulation is the great level of economic dependence on informal networks, which can absorb the unskilled labor force in areas where there are no productive alternatives or state support (Canaviri 2015). The continuity in time of these informal networks has contributed in turn to the creation of informal extraction regimes that centralize the benefits of exploitable resources, directly benefit local communities and officials and as a consequence, ensure stability at the local level (Snyder 2006; Peluso 2017). Given their unique benefits to both informal actors and authorities, these regimes will then be strongly defended. From this perspective, the formation of peripheral interest groups can also be seen as a response to the weakness of formal institutions (Scott 1969) or as more effective forms of accountability to citizens (Gupta 1995).

Figure 12 summarizes the sequential process and situates the two country cases. I argue that, when facing a continuous threat to their informal activities, the strengthening of local ties between informal actors and local authorities will translate into stronger coalitions against the central state. Thus, officials go from being lenient towards informal groups to actively defending their cause. Where informal actors have been politically incorporated,
they will also demand the support of their national-level representatives. This is the case of Bolivia where miners can openly participate in politics, they have access to authorities working both at the local and national level, but not of Peru where informal miners have restrictions to participate in national politics (their activities are considered illegal and hence, they cannot have open political representation). Local officials will demonstrate their support by voicing the concerns of the informal groups to the central state, participating in protests, conceding a more prominent role in law-making debates to these groups, publicly defying national law and pointing at bureaucratic or legal mistakes. This will give informal pressure groups an opportunity not only to defend their interests, but also to expose the loyalty of state officials to their local constituency above the goals of the state. As contention against the central state builds up, it becomes more and more difficult to draw a clear line between the state and society.

Figure 12 Sequential process of bottom-up policy change

I find that informal groups not only gain from the support of officials, but also from stripping the state of any semblance of internal coherence. They challenge the state’s
legitimacy to impose rules by exposing the central state’s lack of popular support at the local level and its weak organizational capacities to implement policies. Informal groups have motivations to expose such vulnerabilities knowing that, when institutions are perceived as unstable and rules as difficult to enforce, they are less likely to be respected or to endure (Levitsky and Murillo 2009).

The delegitimization of state institutions helps both politically incorporated and excluded informal groups to gain ground. At this point, informal groups are not only trying to avoid regulation, but they are also mobilizing to bring their own agenda for discussion. Paradoxically, they will do so in opposite ways. The exposure of state’s fragmentation and incoherence will serve politically included groups to demand the central state to engage in direct negotiation with them without intermediaries (officials) and compromise on regulatory regimes. On the other hand, the same condition will generate incentives to politically excluded groups to run for local state offices in order to force the state to listen and validate their demands. I contend that this allows them to go from becoming informal veto players to active participants in policy drafting.

5.3 Methods

I undertake a comparative sequential study of Bolivia and Peru. Sequential analysis is suitable for this study as it incorporates cross-case analysis and within-case analysis simultaneously (Falleti and Mahoney 2015; Falleti and Riofrancos 2017). I inductively traced the key events in the formation of pressure groups to identify what kind of dynamics were particular of each country and what could be generalized. At the same time, the comparative nature of this study allowed me to explain why despite different state feedback, we observe
the same outcome in both cases. To this end, I have done multiple visits to the capital cities of Bolivia and Peru to interview representatives from the Ministry of Mines, Ministry of the Environment and parliamentary members working in small-scale and artisanal gold mining legislation. The information provided was contrasted with the findings from the interviews to leaders of gold mining federations. I also reviewed law drafts, amendments, executive decrees and mining laws in each country.

Locally, my fieldwork focused on the trajectory of gold mining associations and cooperatives that appeared with the last commodity boom in the 2000s, as these were the main targets of the policies. I interviewed governors, mayors and former mayors, as well as leaders of associations and cooperatives in La Paz and Madre de Dios – the regions in Bolivia and Peru respectively with the highest number of informal gold mining workers and gold production in each country. La Paz concentrates more than 90 percent of the total number of informal gold mining cooperatives in Bolivia – 1,100 approximately, with around 5,100 members (Viceministerio de Cooperativas 2016) and a greater number of assistants. In Madre de Dios there are between 30,000 to 100,000 miners, including assistants, producing about 70 percent of the total informal gold mined in Peru (SPDA 2015).

The period of study starts at the end of the first decade of the 2000s, when gold prices went from US$ 279.17 in 2000 to 1,225.29 per Troy Ounce in 2010 (The Artisanal and Small-Scale Mining Knowledge Sharing Archive 2017), the number of miners peaked, and Bolivia and Peru drafted laws to regulate informal mining. The period under analysis ends with law changes in favor of informal mining in 2014 and 2015, respectively.
5.4 Findings

5.4.1 The origins of informal miners’ pressure groups

The popular takeover of institutions by informal miners is possible in regions that are both forsaken by the central state and lack productive alternatives capable of absorbing the local working class. La Paz and Madre de Dios share both these conditions. Although the region of La Paz in Bolivia is also home to the administrative capital of the country, rural areas – where informal mining proliferates – have been historically neglected. Rural La Paz shows the highest levels of poverty in the country (Arias and Robles 2007). Likewise, Madre de Dios, as all Amazonian territories in Peru, has never been part of national development projects (Damonte 2018). The region has consistently performed below the average rates of development and, before the last commodity boom, only half of the population had access to health and education (INEI 2001).

Labor opportunities are scarce in both places too. Mining communities in rural La Paz, such as Sud Yungas, Abel Iturralde and Larecaja lack proper infrastructure and economic development plans, which has impeded the expansion of agriculture in the few areas where coffee and fruit plantations are possible. Lack of opportunities in these communities has pushed younger generations to migrate. On average, during the last twenty years, 40 percent of the population from La Paz has migrated from rural areas to the urban capital of the region (UDAPE and INE 2018). The picture is not that different for the communities in Tambopata, rural Madre de Dios. Aside from brief colonizing episodes when the Amazon witnessed rubber and gold booms in the late 1800s and in 1960s, labor opportunities have been either very limited, not suitable for everybody – such as logging or
drug trafficking – or still incipient – such as chestnut production or ecotourism (SPDA 2015). Before the mining boom, annual emigration from Madre de Dios to other regions of the country reached on average 13 percent (Yamada 2012).

**Figure 13 Increase in the number of mining cooperatives in Bolivia (1997-2017)**

Source: Graph built with information from the Vice-Ministry of Cooperatives.
Figure 14 Increase in the number of informal miners in Peru (1994-2016)

![Graph showing the increase in the number of informal miners in Peru from 1990 to 2020.](image)

Source: Graph built with information from Pachas (2011) and De Echave (2016).

Table 3 Number of gold mining cooperative members in La Paz (Bolivia), organized by federations (2014-2016)

<table>
<thead>
<tr>
<th>Year</th>
<th>Regional Federation of Mining Auriferous Cooperatives (FERRECO)</th>
<th>Regional Federation of Mining Auriferous Cooperatives from Northern La Paz (FECOMAN)</th>
<th>Other gold cooperatives</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>11,880</td>
<td>11,425</td>
<td>2,960</td>
<td>26,265</td>
</tr>
<tr>
<td>2015</td>
<td>12,355</td>
<td>12,053</td>
<td>3,170</td>
<td>27,578</td>
</tr>
<tr>
<td>2016</td>
<td>12,849</td>
<td>12,776</td>
<td>3,125</td>
<td>28,750</td>
</tr>
</tbody>
</table>

Source: Table built with information provided by the gold mining federations FERRECO and FECOMAN. Numbers only include members (socios) and no other workers.
Table 4 Yearly variation in the gold production of Madre de Dios (Peru) and in the regional GDP (2012-2017)

<table>
<thead>
<tr>
<th>Year</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variation in the gold production of the region</td>
<td>-51%</td>
<td>29%</td>
<td>-50%</td>
<td>59%</td>
<td>38%</td>
<td>-27%</td>
</tr>
<tr>
<td>Variation in the Gross Domestic Product in Madre de Dios</td>
<td>-20%</td>
<td>14,9%</td>
<td>-14,2%</td>
<td>22%</td>
<td>25,9%</td>
<td>-10%</td>
</tr>
</tbody>
</table>

Source: Table built with information from *El Comercio* (2019) and MINEM (2018).

The rapid rise of gold prices in the last two decades set in motion a transformative process for rural communities with gold deposits. Along with the abrupt increase in the number of miners (see Figure 13 and Figure 14). In both regions, informal mining became the most – if not the only – profitable activity for small local economies. Informal gold mining represents 29.5 percent of the regional Gross Domestic Product (GDP) in La Paz, peaking at almost 40 percent in 2015, and is the third-most employment generating activity (INE 2018) (see Table 3). Likewise, in Madre de Dios, informal mining represents 41 percent of the regional GDP and 70 percent of the local economy is linked to activities associated to gold extraction (*El Comercio* 2018). This has created a high level of dependence between the region’s growth and the gold production – when gold production is high, it positively reflects on the GDP of Madre de Dios and vice versa (see Table 4).

Exclusion and lack of local productive alternatives has generated the same outcome of political activation in other areas, such as Oruro in Bolivia or Northern Puno in Peru where
miners have become the main political actor. The case is not atypical in the region either. During the gold rush of 1979, the extraordinary contribution of garimpeiros (informal miners) to extremely poor local economies in the Brazilian Amazon allowed them to transform the towns and become the most influential decision makers (Cleary 1990). By contrast, in regions or towns with other productive activities capable of absorbing a large number of workers, the boom increased the number of miners, but it did not lead to their political activation. This is the case of Cochabamba in central Bolivia or La Libertad and Piura in northern Peru where agriculture or fisheries are key for the local economy.

5.4.2 Informal gold miners and changes in resource governance

5.4.2.1 Miners’ political activation and local authorities’ support

By the end of the first decade of the 2000s, the governments of Bolivia and Peru faced dilemmas related to their core constituency and their electoral promises. In Bolivia, the Movement towards Socialism (MAS), under the leadership of Evo Morales, was committed to supporting social organizations, such as mining cooperatives, who were key to its electoral success. At the same time, to expand the tax base and regain control over land distribution, since 2007 the government stated its interest in increasing its share from extractive activities and declared all the national territory as mining fiscal reserve – which grants the state the power to exploit all the mining resources and renegotiate the terms of mining concessions that were still pending approval (Supreme Decree 29117). Although president Morales
delayed the execution of the decree, the crucial contribution of the mining sector to the economy and the financing of social programs made the reform of the mining law inevitable by 2009.²⁶

The decisions quickly generated a response at the local level. Membership to unions, such as the National Federation of Mining Cooperatives in Bolivia (FENCOMIN)²⁷ and especially regional federations, such as the Federation of Mining Cooperatives of La Paz (FEDECOMIN) was boosted. “The fear of our mining brothers was that the interests of private mining companies or other actors would predominate in the law reform” – explained Simón Condori, leader of FENCOMIN (Interview # 80, 8 October 2017). Along with a rise in membership, multiple mining towns started protesting and went on strike. Whereas federations were in charge of coordinating activities and strengthening channels of communications with local authorities, popular mobilizations served to raise awareness about the many different social groups that would be affected by the reform.

To avoid partaking in the conflict, local authorities in La Paz and Madre de Dios refrained from participating in the national efforts to change the law. In rural La Paz, local authorities often stated that they were going to respect the will of the people. In the words of a local representative: “Our decisions as authorities cannot hurt our people, the local

²⁶ In fact, the reform of the mining law was scheduled for 2007 but fearing that it would interfere with the promulgation of a new constitution, the government postponed it to 2009 (Okada 2016).

²⁷ FENCOMIN has been the organization traditionally representing the interests of small-scale and artisanal gold mining in Bolivia. Previously dominated by old cooperatives from Oruro and Potosí, after the mining boom, miners from La Paz increased their numbers and became key actors in the federation.
economy and the people that work hard to provide for their families…” (Interview # 77, 6 October 2017). In the successive roundtables organized by the central state to reform the law in Bolivia, local authorities of mining towns remained silent signaling their support to mining federations. “It was not going to be a legitimate document without their [local officials] participation, so we encouraged them to talk but we had no success” – said Héctor Córdova, vice-minister of Productive Development Ministry at the time and member of the committee in charge of drafting the law (Interview # 49, 29 September 2017). The absence of cooperation and the multiple protests of the mining federations constituted an obstacle to the drafting process.

Similarly, the Nationalist party in Peru had a commitment with poor and informal sectors and won in almost all rural areas, including Madre de Dios and other mining areas. However, in the runoff, soon-to-be president Ollanta Humala, was compelled by elites into signing a “road map” to moderate his promises in favor of large-scale investment. Once in office, the pressure continued, and elites demanded that Humala have a heavy-handed mano dura approach against informality. In 2010, the government began its actions to limit informal mining expansion with an executive decree that authorized police to confiscate mining instruments in mining towns (Decree 012-2010).

Likewise, the threat of interdictions and the destruction of mining camps activated the formation and strengthening of informal mining associations in Madre de Dios and other regions in Peru, such as the Mining Federation of Madre de Dios (FEDEMIN), the Nacional Confederation of Artisanal and Small Miners (CONAMI), the National Federation of Artisanal Miners in Peru (FENAMARPE), and the National Society of Small-Scale Mining (SONAMIPE). These organizations – led by miners from Madre de Dios – organized regional and national mobilizations from 2010 onwards (PRONATURALEZA and SER 2011). In
2011, Madre de Dios had several strikes, lasting up to 14 days (El Comercio 2014). The presence of miners’ families and dependents showed for the first time to the rest of the country how widespread the activity was. Moreover, the shutdown of local businesses in solidarity with the strikes’ cause demonstrated the degree of local support that informal mining had gained over the years.

To the question of what local authorities did regarding the implementation of national decrees, a Peruvian miner said: “They did the best they could do to support us: they did nothing” (Interview # 23, 3 June 2015). In Madre de Dios, regional authorities were also reticent to collaborate in the implementation of the decrees. They joined the roundtables led by the central state to create regional monitoring committees (Decree 045-2010) and followed the instructions from the central state to pass bylaws for the creation of a Regional Environmental Commission to monitor informal mining activities (Regional By-law 011-2010). However, in practice, they refrained from taking action to stop informal mining activities. “For one, we did not have the resources to fight against miners…also, would you do that to your own people? To their own businesses? What will you feed them, later on?” argued a local authority who participated in the roundtables (Interview # 29, 8 June 2015). Local officials’ lack of cooperation and massive protests delayed the execution of the decrees twice, in April 2010 and in February 2011 (PRONATURALEZA and SER 2011).

5.4.2.2 Working from the inside

Mobilizations and local authorities’ forbearance were useful to delay the drafting and implementation of decrees, but insufficient to fully guarantee the continuity of informal mining activities. As miners felt the threat was latent, they requested public endorsement
from supportive officials as a form of binding commitment. Given the overlapping interests – and often identities – between miners and local elected representatives, getting their support beyond forbearance was far from challenging. Miners were able to gain access – directly or indirectly – to policymaking or implementation strategies, thus projecting their power beyond regional politics and directly contesting the central state’s authority. At this stage, the trajectories of the cases bifurcate. Miners’ political action varied according to their political status and the forms of representation available to them.

Miners in Bolivia contacted former peers working as officials in the MAS government and other local level unionists who worked as state officials to defend their interests when discussing the new law. FENCOMIN met with two different ministers of Mines: first, Luis Alberto Echazú and later, José Pimentel – both miners and unionists. This led to the organization of roundtables with the participation of mining federations to discuss the reform.

We were there [at the negotiation table] and it was supposed to be a place where each of us had only one representative, but the cooperativists seemed to have their leaders, local authorities and state members on their side! I really could not tell if they [authorities] were defending the state or whom (Interview with a representative of the medium and large-scale mining sector # 85, 1 November 2017).

The overrepresentation and support to mining cooperatives was so evident that other groups invited to the roundtables, such as the Unified Syndical Confederation of Rural Workers of Bolivia (CSUTCB), abandoned the meetings early, after feeling ignored. Leaders of indigenous groups also abandoned the room as they felt only one group was dominating the conversation (Interview with representative present at the law drafting, November 2017). The level of support to the mining cooperatives at the roundtables and the ambiguity of local
authorities’ position indicated the contradictory interests of different state branches on informal mining.

The drafts written by the two ministers considerably favored cooperatives’ interests, particularly in terms of obligations to the state. They reduced bureaucratic procedures to register cooperatives and conveniently omitted monitoring policies to regulate mining activities and labor regimes. However, miners still opposed the drafts in 2010, as the documents signaled limitations to the permitted mining working areas and contract arrangements (Okada 2016). Miners organized more strikes to demand the resignation of the two ministers. The contention further delayed the new drafting process. FENCOMIN and local officials publicly accused MAS and president Morales of unwillingness to negotiate with the cooperativist sector, further challenging the legitimacy of the process (La Patria 2011). The dismissal of the drafts made clear that miners did not want to be only spectators but active participants in the making of the new rules.

In Peru, miners began pressuring local and regional officials in Madre de Dios to publicly endorse their cause. Each attempt to implement the decrees limiting informal mining areas was followed by massive mobilizations: the most radical one in 2012 lasted 23 days (El Comercio 2014). Mayors from mining towns, districts and regional governors at the time – first, Gilbert Galindo and then, Jorge Aldazábal – joined the protests and co-signed a document outlining miners’ demands to the state. Additionally, most of local authorities boycotted the initiatives coming from the executive. Peruvian newspapers summarized the political scenario:
Double-crossing. While president Ollanta Humala stated that his government was going to have a firm attitude against illegal mining... his regional governor in Madre de Dios, Gilbert Galindo Maytahuari granted permits and authorizations to the fuel carriers that were heading to the gold extraction areas...CHALLENGING THE STATE...representatives from the National Supervisory Board for Investment in Energy and Mining received a document from the Regional Governor stating that he would continue granting those permits, despite the control imposed by the Central state to stop illegal and informal mining (Peru21 2012).28

Aside from forbearing on miners, local authorities also maintained contact with central state authorities and acted as informal spokesmen for the miners. They attempted to persuade the central state on the contribution of the miners to the local economy. They likewise denounced problems in the formalization law that impeded meeting the requirements – such as the lack of distinction among productive units, the arbitrary selection of mining areas to confiscate machinery and the high bureaucratic costs of formalization (Interview with leader of SONAMIPE, November 2017). Additionally, local officials were in charge of voicing the ineffectiveness of the central state’s strategy to achieve formalization. Until that point, less than 1 percent of the miners had formalized their activities (El Comercio 2014).

A High Commissioner for the Formalization, Interdiction and Environmental Remedy of Illegal Miners... visited Madre de Dios at request of the regional governor Jorge Aldazábal to see in situ the problems of mining... ‘We know that... there are a lot of Peruvians working there (in mining) because they have necessities, we cannot use only the instrument of interdictions with coercion, but we also need to generate the development of other activities’... stated the regional governor (Actualidad Ambiental 2013).

28 Translations of news and interviews are all mine.
“What happened weeks ago [the interdictions] should never happen again” stated Jorge Aldazábal, regional president of Madre de Dios in a meeting with 5,000 artisanal miners… Aldazábal indicated that they will ask the Executive to give regional governments the power to lead a new formalization process… ‘only in this way we can move forward…with the current laws, miners cannot formalize’, stated (Inforegión 2013).

Contention both from inside the state and from civil society was successful: the central state extended the deadlines to complete the formalization process several times. Also, the Ministry of Mines developed new guidelines for resource management and monitoring informal mining. More importantly, for the first time, the central state decided to sit down with the mining associations to discuss the law (Red Muqui 2013).

5.4.2.3 No more middlemen

The capacity to oppose and dismiss law reforms, to point at state mistakes and to stop the execution of decrees with great support from the local populations and authorities gave miners momentum. Every time the government in Bolivia had to postpone the presentation of the law draft to the Assembly or every time the government in Peru had to extend the deadline to complete the process of formalization due to the lack of stakeholders’ participation, it signaled a victory for the informal pressure group over the central state. The exposure of the fragmentation of the state generated pressure to the executive to meet and negotiate directly with them. This in turn was used by miners to compel the central state to compromise and to legally incorporate part of the miners’ agenda.

In Bolivia, given that miners refused to work with the Ministry of Mines, the government appointed the Minister of Labor – Félix Rojas – to be in charge of drafting the law (La Patria 2011b). New committees were created in 2011 and in 2012 where miners,
now without middlemen, negotiated every clause in the working document. Miners went from acting informal veto players to becoming editors of the law themselves (Okada 2016). In 2013, miners obtained a favorable distribution of concessions, the creation of a new institution to regulate such distribution – the Jurisdictional Mining Administrative Authority (AJAM) – and more land available to mining cooperatives, among other successes. The share of mining revenues assigned to the mining municipalities increased (Página Siete 2014). Furthermore, the government committed to increasing the budget of the Fund to Finance Mining (FOFIM) to aid miners with credit and training. Additional regulations were valid only for new miners. FENCOMIN later negotiated the taxation regime to 1 percent (Francescone and Diaz 2012).

Following the revisions of the Ministry of Mines and the Assembly, some changes applied to the negotiated law draft, particularly, with regards to the taxation regimen, environmental regulation and the impossibility of cooperatives – which by definition are non-profit – to contract with private actors (La Razón 2014). Facing the risk of changes, miners decided to strike and threatened to end their support of MAS. Media editorials at the time spoke about the weakness of the state to set strong rules and assert its autonomy from cooperativist interests (Página Siete 2014b). In response, president Morales promised to speed up the process of making land available for mining cooperatives as an incentive to re-enter into negotiations with them. This concession did not stop the protests. In one of the strikes two miners died in Sayari, Cochabamba. The magnitude of the problem prompted the president to intervene once again. FENCOMIN negotiated directly with president Morales and, everything the federation asked was agreed on excepting for the right to partner with private actors. The new mining law co-edited by the miners passed on May 28, 2014 (La Razón 2014).
In Peru, miners won local and regional offices, the most important one being the regional government of Madre de Dios with Luis Otsuka – head the local mining federation FEDEMIN. By running for office, miners had direct access to negotiations with national authorities, including the president, without middlemen. Otsuka’s role was to push for alternative strategies of regulation. He publicly denounced the failure of the formalization process and its punitive measures. Interdictions were costly (US$ 300,000 on average), did not encourage formalization, and worse, led to the clandestine proliferation of illegal gold mining deposits. Otsuka asked for the derogation of the punitive decrees, the distinction between informal (those working without permits or in the process of legalizing their activities) from illegal miners (those who work on forbidden areas) and demanded regional political powers to autonomously regulate informal mining (Ojo Público 2016).29

Not only did he boycott mining formalization as a leader, but he has now the power as an authority to speak in front of us and question state’s policies. He should make explicit who it is that he is defending, the state or them [the miners] (interview with an official from the Ministry of the Environment on Otsuka’s behavior # 27, 8 June 2015).

After Otsuka, all the candidates and elected officials in the region of Madre de Dios were directly or indirectly participating in informal gold mining (Ojo Público 2018). Facing this informal mining bulwark, the Peruvian governments created a high commission for mining formalization, and once again, tried to organize regional committees for mining

29 Previously, a congressman and miner from the Nationalist party brought up a similar initiative with no success. Congressman Amado Romeo was sanctioned for supporting informal gold mining and having a conflict of interests (Correo 2014).
control without significant results. Unlike Bolivia, where the ruling party MAS had institutional channels of communication with organized groups from civil society, in Peru the absence of these channels impeded the development of peaceful negotiations. Thus, in an episode that evidenced the state’s impotence, the government resorted again to interdictions (decree 003-2014). In response, more than 20,000 miners went on strike in five regions and 4,000 went to Congress in Lima asking for the derogation of the laws (El Comercio 2014).

Cornered by the miners and facing the pressure of public opinion that spoke about desgobierno (misrule), the government was forced to make changes. The Ministry of Mines changed its technical team and committed to reduce the number of steps in the formalization process. This was not enough to appease contention. After 2015, the Ministry of Mines decided to meet the mining federations and all of the most important presidential candidates in the 2016 elections publicly supported the derogation of the entire formalization law to facilitate a new reform. After that, the legislature in collaboration with the executive passed decree 1293 to restructure the process of formalization and delegate part of the responsibilities to regional offices. Subsequent teams from the Ministry of Mines have worked towards designing more friendly strategies to formalize miners. They now engage with informal mining leaders in consultation processes when designing policies. Although there have been a couple of interdictions in the last couple of years, these are no longer the primary instrument used by the state to deal with informal mining. Moreover, policymakers stopped labelling all informal mining as illegal. The focus of the state has now shifted towards incentivizing the creation of business associations among miners (Peru21 2018).
5.5 Conclusion

Informal groups are able to shape resource governance outcomes by mobilizing popular support and taking over local state institutions through the formation of pressure groups. Although most of the literature on resource governance focuses on the prevalence of top-down changes, I argue that using both informal and formal resources, collectively and in coalition with local officials, informal pressure groups can also impact policy outcomes from the bottom up. The ample maneuvering space that these groups have is a direct consequence of the lack of coordination between the central state and its peripheral branches. The findings presented added to state development scholarship by demonstrating how state institutions in commodity-driven economies encompass contradictions that later serve as a catalyst for resistance and contention against centralist models of resource governance. The argument also contributed to resource politics by identifying when and how informal pressure groups are able to contest exclusionary resource policies and alter policy outcomes.

The formation of partnerships between informal groups and local officials is very common in the Global South. They emerge to defend alternative forms of resource administration developed in the light of the absence of state’s support. The pattern of action described in artisanal gold mining communities in the Andes mirrors the strategies used by other informal actors outside of the realm of resource management. Local cooperation between informal groups and officials against central state’s regulations is common currency in highly unequal societies, such as Chile, Peru, Colombia (Holland 2017), Bolivia (Hummel 2018), India (Gupta 1995) and Zambia (Resnick 2013).

The support of local authorities to informal groups’ agenda over the state’s exposes the conflict of loyalties between central and peripheral state institutions. This exposure, on
the one hand, legitimizes the demands of the informal actors and, on the other hand, helps to consolidate a model of institutional feebleness. Where formal institutions are constantly defeated or exposed as weak, actors develop expectations of instability (Przeworski 1991). In that sense, the success of informal groups in shaping policy outcomes confirms to other ‘forsaken’ groups that it is worth investing in mobilization and coalition-building strategies to destabilize incoherent institutional structures and get the central state’s attention. This is a self-reinforcing model. A further possible step in this line of research would look into the variations of outcomes in center-periphery negotiations across resource groups.

The cases of Bolivia and Peru also show that the lack of intrastate articulation has high sociopolitical and economic costs. Even in cases where informal groups have political representation, such as Bolivia, the abandonment of state peripheral offices stimulates the emergence of pressure groups that will mobilize to keep their autonomy. The fact that informal groups organize posits a governance challenge, but it is not always harmful for states with limited resources. On the contrary, if accompanied by the strengthening of local state institutions, inclusion of informal groups in policymaking can improve policy outcomes. Those directly affected can provide an everyday perspective based on their experiences and cast light on problems that technocrats alone might not be able to see (Ostrom 1990), as shown in the Peruvian case. Policy innovations in Latin America that follow this principle have proven to be conducive of better results and deeper democracy (Van Cott 2008). Moreover, inclusion can favor self-regulation, increase transparency in the supply chain, eliminate speculators, combat criminal forces involved and strengthen rule compliance.
Chapter 6: Conclusions

The extractivism of the poor is a well-established activity based on small-scale and artisanal mining practices. The activity constitutes an important source of job and development opportunities for around 350,000 people in Bolivia and Peru, while also bringing about harmful effects to the environment and surrounding communities. Its participants, informal miners, do not conform to the conventional profile of state competitors – they are non-elite actors with limited access to financial and coercive resources. Yet, they have been able to fend off state strategies of regulation and shape national resource governance outcomes. This dissertation has used the case of informal gold miners to explore resilient organizational liabilities of Andean states and how these are taken advantage of by marginalized sectors to hinder state’s authority through bottom-up collective action.

Three research questions have guided my study. Why has the expansion of the Andean state and their modernization not led to an increase in social control? What explains informal mining’s capacity to resist regulation? And why, in countries where natural resources are fundamental, are informal gold miners able to impact national resource governance policies? Through a combination of ethnographic work, a total of 156 interviews in Spanish and Quechua and a survey to 100 people in three gold mining communities, Santa Rosa (rural La Paz) in Bolivia and Huepetuhe (Madre de Dios) and Tambogrande (Piura) in Peru, I have sought to provide an answer to those questions.

In Paper 1, I argued that Andean states have serious organizational limitations in comparison to highly organized state competitors with better abilities to generate benefits
and provide socioeconomic opportunities at the local level. These organizational challengers, such as informal gold miners, are distinct from other state competitors in that they do not aim for territorial control or the monopoly of violence. What organizational challengers do is to generate a parallel system of incentives and rewards around the administration of goods or natural resources. I have explained how a rentist nature of the Andean state has historically prevented it from engaging with communities in peripheral areas and provide them with development opportunities. The vacuum left by the state in those areas has favored the continuity of old resource governance systems aligned with the communities’ needs and priorities. Subsequent reforms aiming to increase the state’s power of reach never fully changed the spirit of the relations between state and society, particularly in the periphery.

In this context, two different strategies have been put into place to increase social control – in Bolivia the state has decided to grant political recognition and collaborate with the miners, whereas in Peru the state has chosen to invest in coercive resources against the miners. The strategies have had mixed results. The Bolivian state was able to gather key data on the small-scale and artisanal mining, enforce low taxation and increase compliance. However, state’s political recognition of miners has empowered the competitors, who use their political influence against strong regulation. In contrast, the Peruvian approach has resulted in the expansion of the state’s coercive commitments and investments to deter informal mining. Yet, this has not favored a decrease in the number of miners; in fact, it has fostered its clandestine proliferation and the emergence of alliances with criminal and illegal groups, thus accelerating the expansion of the activity to forbidden areas and increasing the level of violence related with informal mining.
After characterizing the type of challenge that informal miners bring to state’s social control, I have explored in Papers 2 and 3 the capacity of miners to resist regulation by looking into local dynamics and the role of local communities in supporting their activity. Contrary to studies that see informal mining as a hidden and chaotic activity, these papers discussed the existence of an open and well-structured order with high inclusionary networks regulating the activity. I have argued that it is precisely the degree of rootedness of these networks within the local order that ultimately makes informal institutions a big threat to the Andean state.

In Paper 2, co-authored with Marcello Veiga, I put forward a study of local communities’ perceptions on mining at different scales in Tambogrande, Northern Peru, an emblematic case of community resistance against large-scale mining – a type of mining led by companies and associated with high revenues for the central state – but where now small-scale and artisanal gold mining are proliferating. I tested conventional arguments against mining activities, and I found that, although economic and environmental concerns are real, these are mediated by their perception of how the activity relates to the preservation of social stability and its contribution to the local economy. Proximity and trust in that sense have played a key role in shaping the perception of local communities towards informal gold mining. The degree of economic inclusion in the informal mining networks and the direct participation of locals in the mining made this activity much more tolerable than large-scale mining.

In Paper 3, I elaborated on how the informal extractive institutions of organizational challengers operate and why they developed an advantage over formal ones. Through multisited ethnographic work in two gold mining communities in Santa Rosa and Huepetuhe in Bolivia and Peru respectively, I looked into key practices orienting informal extractive
institutions. These practices originate in the *campesino* tradition and help communities to solve issues of infrastructure, employment, land tenancy, conflict resolution and the preservation of traditions. As informal institutions crystalize and are boosted by the commodity boom, they can do more than ensuring survival – they can also favor social mobility among groups for whom the state offers no employment alternative. This, I argued, made the informal extractive institutions of miners a functional alternative to the state. This explains why they are strongly supported by local communities.

The power of organizational challengers and their institutions is not only observable locally, but it can also be projected nationally. In Paper 4, I used state reform attempts to the mining law in Bolivia and Peru to examine the collective action capacity of organizational challengers. Through interviews with the main leaders of gold cooperatives and associations as well as with local and national officials, I argued that informal miners are able to successfully contest exclusionary national resource policies by engaging in state-society alliances at the local level. The fracture of the state has allowed for the development of pressure group with the participation of local officials whose interests are more in line with those of local society than with the central state. In combination with social mobilization, these pressure groups allow miners to fend off national regulation and then to push for policy change. They do so by exposing the weak enforcement capacity of the state, its poor knowledge of the local context and its lack of internal coherence.

Together, in these papers I have been able to show how actors at the margins of society, those that are invisible or that seem powerless, can subvert state authority and influence national governance outcomes. To my knowledge, there is no other systematic study of informal gold mining with a comparative bottom-up perspective that theorizes on the implications of the activity for Andean state development.
The dissertation makes important contributions to literature on state development. By elaborating on the presence and empowerment of organizational challengers, I have shed light over an overlooked state competitor who has been shaping the development process of the state from the bottom. The study of this type of collective actor has demonstrated that a key obstacle to state development in the Andes is its organizational shortcomings relative to competitors with highly influential governance systems at the local level. This is extremely important for our understanding of Andean state’s trajectory as it means that economic growth and institutional development will not be enough for the state to increase its social control. A concomitant change in state-society relations is indispensable.

In the same line, another important contribution of this work has been to analyze how states bridge the historical gap of underdevelopment. The analysis has showed that, given the late arrival of the Andean states to the periphery, it is very difficult for them to conform to ideal type of the Western state. At the margins of society, the Andean state finds decentralized resource governance systems that, having developed organically and in isolation, are deeply rooted in the local practices and publicly legitimized by citizens and local officials. This raises the bar for Andean states and presents them with a dual dilemma: Bolivia and Peru cannot ensure both the monopoly of social control and the centralization of resource governance at the same time. The empowerment of informal resource governance systems and the lack of internal coherence of the state force the state to either make concessions, negotiate and even contribute to organizational competitor’s development in exchange for compliance, or alternatively to devote its efforts and resources to increase its coercive means against the competitors. This dilemma substantially marks the trajectory of state development, changes the terms of relationship with society and it establishes limits to its expansion.
My dissertation also speaks to the literature on resource governance in two ways. First, through original fieldwork in key gold mining communities, I have provided detailed accounts of the mechanisms regulating competing extractive institutions in the Bolivian highlands and the Peruvian Amazon. This deepens our understanding of extractivism in all of its forms and its impact on socioeconomic local conditions. Likewise, the study of the extractivism of the poor in times of boom and how this has favored the social ascent of certain marginalized groups deepens our understanding of the relationship between extractive institutions and development. Second, my work showed that non-elite and unarmed social actors can bring about resource policy change. Adding to existing accounts focusing on the role of economic elites, strongmen and authorities in commodity-driven environments, I have described the mechanisms and conditions that enable bottom-up change in resource governance.

In relation to the literature on informality, my dissertation has argued for the study of the roots of informal institutions to understand the sources of its empowerment and resilience over time. I think this provides fertile ground to study the trajectory of informal institutions vis-à-vis the state. In practice, this approach has allowed me to explore the role of often neglected actors – such as the agrominers, campesinos who take part in mining and ensure accountability from the miners – and overlooked strategies of redistribution – such as the preference to hire people within close networks rather than experts – that challenge conventional understandings of extractivism and that constitute sources of cohesion and continuity of informal governance systems. In its evolving process, while eschewing state’s institutions, these alternative systems also engaged with local state officials in the growth of this alternative governance system. In this way, the systems helped actors at the local level to redefine state-society relations following local actors’ own categories. I think this strategy
is productive in allowing to see informality as a system on its own but at the same, in helping us to recognize how informal groups interact with formal institutions.

Lastly, my findings also contribute to the theorization of the multiple and diverse processes of rural diversification in the Global South. Building on scholarship looking at how peasants’ institutions have been helping them to engage with transnational markets, to mitigate risks and to overcome poverty, I have discussed the political implications these institutions. Informal systems are political in that they represent the consolidation of a form of governance preferences and practices, whether or not these are accepted and legitimized by the state. More importantly, the systems are political because they enable collective dissent. They do so by empowering actors at the local level, from civil society and the state, around a form of resource governance that runs counter to the central state. This was demonstrated when local communities and local officials mobilized in support of informal mining leaders and later to negotiate with the central state. In that sense, these alternative governance systems can also be thought as alternative vehicles of political representation for otherwise disadvantaged sectors.

This study has two main limitations. By focusing on the source of support and resilience of informal gold mining, my study has given more attention to the institutions that ensure the continuity of the activity and less to the sources of change. Change, as depicted in these papers, has come from external shocks – such as the commodity boom – which empowered and extended the scope of informal institutions. I have discussed in how foreigners are perceived by local miners as actors that can put at risks their governance systems, but further work is needed in that direction. Perhaps, a study that includes the rest of actors in the gold chain can assess in more detail how private actors interested in
maximizing gold production or the association of miners with criminal groups can favor endogenous change.

Secondly, this study does not include a case with a contrasting outcome that can help us see what kind of conditions help the state to successfully bridge the organizational gap. Other country cases from the region with a high number of informal miners suggests the activity elsewhere in Latin America falls into the characterization of the two cases here presented. Coercive approaches in Colombia have led, as in the Peruvian case, to the clandestine proliferation of informal mining and to the increase of the ties between informal gold miners with criminal groups. Permissive approaches in Brazil, on the other hand, where formalization processes were not accompanied by organizational state efforts have granted miners impunity; as in the Bolivian case, there are very few restrictions regulating their activity in Brazil. A case with potential to expand our knowledge on informal mining resource regimes in the region is Guyana, where early mining reforms have led to very distinct dynamics. Inclusion, growth and stability have characterized a formalized small-scale and artisanal mining sector. This case can be used to discuss what kind of institutions needs to be in place to facilitate compliance and cooperation and how miners participate in political life.

6.1 Future lines of inquiry

The case of organizational challengers opens up a broad agenda around a wide range of themes such as state competitors, subnational politics, sustainability and democracy. For example, comparative analysis on organizational challengers can further our understanding of state’s organizational deficits and how these are used by competitors to advance their
interests. This is the case of coca leaf, quinoa and palm oil growers, as well as of artisanal fishermen. Yet, except for the case of coca leaf growers, these groups are rarely considered political actors. As in the case of gold miners, these groups have been empowered by the commodity boom and their institutions and networks have considerably grown within that period. A comparative study of their collective action capacity, repertoire of contention and ability to influence national outcomes can extend our knowledge on how organizational challengers worsen state deficits; that is, how the cumulative impact of organizational competitors ends up undermining social control from below and thus affect the overall degree of stateness.

The study of the state’s organizational deficits also requires more investigation into the internal fracture of the state. Studies looking at informal gold mining regimes in the Global South have normally seen local authorities as subjects of local warlord-like elites, often permissive or involved in patronage politics. At the local level, however, local officials find themselves at the intersection of two regimes – they are caught between complying with the interests of the central state and guaranteeing its resource governance monopoly or being loyal to their constituents and continue supporting informal governance systems. The outcomes of their decisions are closely linked to electoral dynamics but also to subnational governments’ degree of fiscal autonomy. This could be a fruitful line of inquiry to explore how local dynamics shape institutional change around resource governance and, at the same time, impact the level of internal coherence of the state.

On the other hand, since we are dealing with an extractive activity with environmental repercussions, the challenge of organizational competitors has consequences for issues of sustainability and democracy. How can we reconcile the development of informal mining with democratic citizenship? Should states work on integrating and thus enhancing the
political participation of groups whose activities are not sustainable? I have provided a political answer to this. The evidence presented in my papers has showed that informal miners are already a political player, locally and nationally, regardless of the approval of the state. Hence, politics – specifically, democratic inclusion – seems to be the only instrument available at this point for Andean states to regulate and improve the practices surrounding informal mining. However, these are relevant questions that governments and policy makers in the Global South are confronted with as they address the presence of organizational challengers.

More broadly, the study of informal institutions places many questions to how we understand the politics from below in unequal societies. How are the poor participating in politics? How do excluded sectors further their political goals? In my account specifically, how are campesinos mobilizing their multiple resource governance interests? How are these claims impacting national governance? Though these questions are conventionally addressed by looking at formal institutions such as political parties or by examining instances of collective mobilization such as social movements, informal resource governance systems also offer another channel through which these groups can become politically empowered. By looking beyond formal structures or exceptional moments of collective action, we can find alternative organized forms through which those at the bottom strive to provide their input into state-making processes.

### 6.2 Policy implications

The findings presented in the four papers also offer important policy implications for improving small-scale and artisanal mining regulation in the Andes:
6.2.1 State’s development of contextual knowledge on informal gold mining

The characterization of the Andean state shows that it is not rightly equipped to exercise effective law enforcement in peripheral regions because it misses contextual knowledge on informal gold mining. In Peru, the central state has advanced in producing nation-based data – for example, the percentage of informal gold with respect to the total national gold production, or estimations on the environmental footprint of informal mining. By contrast, it has very limited information on the local context – there is no consolidated knowledge about who the miners are, where they come from, how their operations are, land access arrangements, how the money from informal mining is redistributed and how the labor relations around this activity are. Moreover, systematic sociodemographic information from the region of Madre de Dios and towns where informal mining proliferates, such as Huepetuhe is unavailable. State reports often make projections from case studies or reports produced by international agencies or NGOs. In the case of Bolivia, the data available from the local context is considerably more prominent as detailed in Paper 1. However, in many instances the state heavily relies on information provided by the miners’ federations only, and often, this data is incomplete, or it is not contrasted with evidence from other sources.

The lack of reliable information impacts in a negative way the capacity of action of state institutions and the degree of success of policy implementation. Locally, an absent state with poor knowledge has no legitimacy to impose its rules or to influence governance structures already in place. On the other hand, a state that only relies on one source cannot pursue accurate studies, assessments and always runs the risk of being deceived. As explained in Paper 4, this is also why in our case studies it is relatively easy for miners to publicly
expose the inadequacy of mining laws. To address these problems, Andean states are required to work on two fronts: presence and development of local governance knowledge.

*Presence* translates into opening regional offices working on informal mining that can deal with everyday problems of small-scale and artisanal miners, while also enforce regulation. Physical presence helps the state to learn about informal mining, communicate with miners, to provide guidance on how to follow regulation and, most importantly, to show it cares. Evidence from Peru and South America for example shows that decentralized state offices looking at conflicts with large-scale mining were effective in enhancing the capacities of the state to manage mining conflicts (Orihuela 2013). Presence in that sense, is a fundamental element contributing to the improvement of state’s capacities for both, affirming its authority and to learn about the activity.

*Local governance knowledge* requires the state to invest in developing context-sensitive tools, such as sociodemographic analysis or data collection that can make legible the different scenarios where informal mining proliferates. In the case of Peru specifically, this information needs to be developed in partnership with the mining population, who have the know-how and insights otherwise unavailable to the state. Mainly, the state needs to collect information on informal land rights of use, the gold chain and the economic circuits around it, percentages of seasonal versus stable mining population, relationship between mining activities, agrarian and other commerce-related activities, informal conflict resolution strategies, financing strategies and migration patterns. In this way, the state can advance in learning how issues of inequality and informality are being resolved in practice. Also, by mapping and making available information on land arrangements at the local level, the state can also reduce uncertainty and mitigate land-related conflicts.
Complementing this initiative, it is important for the Andean state to work with local actors, such as leader of local communities that have ingrained knowledge on informal mining. In Papers 2 and 3, I have described how community leaders have privileged information on how informal agreements are made, mining common practices, payment scales, production cycles and the local redistribution of mining profit. Moreover, whereas conventional reports tend to describe informal mining with the same features as they did 20 years ago, local actors have significant knowledge on how the activity is evolving. Establishing contact and gathering information with them will be particularly important for the Bolivian state to develop autonomous information on issues that would not easily be declared by miners, such as technological and production developments of mining cooperatives, tailing management practices, hierarchies within cooperatives and production averages. Collecting this knowledge is a form in which the state can advance in elaborating accurate regulatory frameworks and also gain legitimacy over its policy decisions. Moreover, this information can be an excellent resource to train state authorities.

Likewise, the participation of subnational authorities (mayors and governors) is fundamental for developing local governance knowledge. Whereas common approaches to formalization of informal mining see local officials as merely bureaucrats or intermediaries of the state, as showed in Paper 4, in practice they play an important role in deciding what and how regulation is put forward. They have important insights on what are the bottlenecks for rule compliance, and they bring potential alternatives for feasible regulation. For example, in Papers 2 and 3 the description of the productive circuits revealed that one of the main preoccupations of the mining population was that of keeping employed the local population. This suggests that mining policies need to be paired with assessments of local economic opportunities for the population that relies on the activity. Likewise, in Paper 4, Peruvian
authorities spoke of a plan to decentralize the control over mining activities, which ended ignored. All of this information is condensed in the hands of leaders and local officials, making them strategic allies in the formation of mining regulation.

6.2.2 Collaborative work with mining associations to formulate consensual rules

The comparative analysis of the Peruvian and Bolivian legislation in Paper 1 demonstrates that there are considerable benefits in the integration of miners into decision-making processes. Inclusionary frameworks as the one used in Bolivia help designing viable goals, implementing standards according to the local context, including differentiated rules and increasing the possibilities of achieving compliance. More importantly, collaborative work between miners and authorities favors transparency. This is something in which the Bolivian state has made important progresses. Miners can speak about common problems in meeting regulation – most commonly land access or tenancy problems, bureaucratic costs and technological and economic barriers – which in turn help the state to identifying basic steps needed, such as socialization processes, trainings and credit access options to even the ground and enable all stakeholders to conform to the rules. State organized forums, roundtables and workshops with mining association leaders can facilitate the development of consensual regulation.

On the contrary, as observed in the case of Peru, regulations that have pressing deadlines without having consulted with miners have more chances to fail, as it does not integrate local context-related factors. Lack of consultation also favors distorted regulation that conflates miners, informal traders around them with other illegal actors, such as mafias or criminals under one single label. This leads to scenarios of resistance, it favors situations
of contention and conflict, and further delegitimizes state’s authority. As Paper 4 demonstrates, it is better for states to include miners in contexts of peaceful dialogue and negotiations than to do so in times of contention where the parties are less inclined to conciliate and find middle grounds. Also, evidence from my cases suggests that where no channels of communication are provided – given the importance of informal mining to the local economy – mining interests will still be infiltrated with local officials’ cooperation and with the participation of other political actors.

Collaborative spaces should also help clarifying penalties for not compliance. This is still a weak point in both countries. In Peru, as rules are not discussed and very few can comply with the law, local authorities tend to forbear from punishing law infringements. In Bolivia, on the other hand, the state discusses rules with miners, but it does not put in any further effort into increasing its organizational capacity – i.e., it does not exert presence in mining areas – granting impunity to miners. As a result, in the two cases laws are broken with no punishment and the authority of the state is weaken. As the parties reach agreements on rules, sanctions should be well explained, socialized and understood by the participants. Processes of integration of miners in the decision-making process should also come with a sense of commitment from both sides to the follow the rules. To this end, once again, physical presence in the mining areas is fundamental. A state that is not present is not credible.

6.2.3 Work with positive incentives

A great part of policy-oriented literature developed by international agencies and non-governmental organizations and that often guides technocrats in both countries has emphasized the need to reduce bureaucratic impediments to favor the formalization of small-
scale and artisanal mining (Siegel and Veiga 2009; Spiegel 2012; Hilson 2013). By exploring the informal institutions governing the activity, however, this dissertation has showed that these diagnoses are misleading. In fact, unilaterally designed mining formalization policy in Peru continued to face opposition from miners even after it reduced the number of steps for formalization. Those immersed in informality are not there mainly to avoid bureaucratic processes. They join competitive systems for the unique socioeconomic rewards and the possibility of social mobility. In that sense, law reforms alone in the mining sector might reduce the level of difficulty for those already willing to formalize, but they are not useful to encourage the formalization of the vast majority of miners.

Coercive approaches have also proven ineffective to favor improvements in informal mining, as demonstrated in Paper 1. As seen with the Peruvian case, policies purely based on coercion obtain the opposite outcome – they favor clandestine proliferation of mining, expansion to areas far from the state’s reach such as natural reserves and, by isolating miners, they can also favor the ties between miners and criminal groups. To the author’s knowledge there is no case within the region of Latin America or in the Global South where coercive approaches alone were successful in either reducing the number of informal miners or in leading to formalization of the activity.

Incentives to formalization, which ultimately is a form of commitment between state and society, arise from trust. Throughout the four papers, but mainly in Papers 2 and 3, lack of trust was one of the key issues miners mentioned – miners cannot believe in never-seen state that never provided for them, which is why they prefer to be part of informal networks that they perceive as more reliable. Developing trust bonds in that sense is an important step towards law compliance. Experiments and training programs in South East Asia and Africa have demonstrated that trust can be fostered through the work with positive incentives.
(Stocklin-Weinberg et al. 2019). Specifically, in both of my cases, miners have expressed their troubles with mining operations given the lack of knowledge on updated mining techniques. Also, in Paper 4, I showed that Bolivian miners negotiated training access with the state – demonstrating the importance that education has for them. This confirms evidence from Peru (Veiga et al. 2014), Ecuador (Velásquez et al. 2010) and Colombia (Garcia et al. 2015) suggesting that education can be a useful tool to enhance collaboration between the state and miners, favor positive behavioral changes and improvements in safety procedures and, more generally, to make the activity more sustainable and accountable.
Bibliography


De Echave, José. 2016. La minería ilegal en el Perú. Entre la informalidad y el delito. Nueva Sociedad 263: 131-144.


García, Oseas, Marcello Veiga, Paul Cordy, Osvaldo Suescun, Jorge Martin Molina and Monika Roesen. 2015. Artisanal gold mining in Antioquia, Colombia: a successful case of mercury reduction. *Journal of Cleaner Production* 90: 244- 252.


*La Patria*. 2011b. Debate de nueva ley minera ya avanzó el 25 por ciento. May 12. [http://www.lapatriaenlinea.com/?nota=68372&sms_ss=twitter&at_xt=4dcbe8abbb57b364.0](http://www.lapatriaenlinea.com/?nota=68372&sms_ss=twitter&at_xt=4dcbe8abbb57b364.0)


Labonne, Beatrice. 2014. Who is afraid of artisanal and small-scale mining (ASM)? The Extractive Industries and Society 1, 2: 121-123.


Marshall, Bruce and Marcello Veiga. 2017. Formalization of artisanal miners: Stop the train, we need to get off! *The Extractive Industries and Society* 4: 300-303.


Poveda, Pablo 2014. *Formas de producción de las cooperativas mineras en Bolivia.* La Paz: CEDLA.


Prno, Jason. 2013. An analysis of factors leading to the establishment of a social license to operate in the mining industry. *Resources Policy* 38, 4: 577-590.


Revesz, Bruno. 2009. Tambogrande: De la defensa del agro a la defensa del derecho a decidir.

In *Minería y Conflicto Social*, eds. José De Echave, Alejandro Diez, Ludwig. Huber,
Bruno Revesz, Xavier Ricard Lanata and Martín Tanaka. Lima: IEP, CIPCA, CBC, CIES. 18-44.


Spiegel, Samuel, Olivier Savornin, Denis Shoko and Marcello Veiga. 2006. Mercury Reduction in Munhena, Mozambique: Homemade Solutions and the Social Context


Tanaka, Martín. 2007. *La Participación Ciudadana y el sistema representativo.* Lima: PRODES.


https://wayka.pe/la-interdiccion-lucha-frontal-contra-la-mineria-ilegal-por-mirtha-vasquez/


Veiga, Marcello, Gustavo Angeloci-Santos and John Meech. 2014. Review of barriers to reduce mercury use in artisanal gold mining. The Extractive Industries and Society 1, 2: 351-361


Wanderley, Fernanda, Fernanda Sostres and Ivonne Farah. 2015. La economía solidaria en la economía plural. Discursos, prácticas y resultados en Bolivia. La Paz: CIDES-UMSA.


Appendices

Appendix A: Guide for the ethnographic work, Papers 1, 3 and 4

Ethnography or “thick description” is a qualitative instrument of participant observation in which the researcher tries to contextualize, conceptualize and interpret actors’ behaviors. The goal is to give a full account of the logic and reasoning behind particular dynamics and to specify the mechanisms that allow the continuity of such actions. The following guide helped me to address the different themes within the subject of small-scale and artisanal gold mining.

Note: When interviewing miners and doing my ethnographic work, I referred to the mentioned activity as “small-scale mining or artisanal mining” to avoid giving labels that could have a negative connotation to the relevant actors.

1. **Stakeholder mapping:** Recognition of the local socioeconomic organization.

   - Who is who?
   - Who are the miners? (Background, age range, local ties, knowledge, experience, routines)
     What type of mining actors can we find in the mining towns? (hierarchies and labor division)
   - Who are the leaders of small-scale and artisanal mining associations?
• Who are the miners in the community? How are they socially perceived? (Social status, political and economic influence, relationship with local authorities and leaders)

2. **Ties between the community and the central state:**

• Level of participation in state-organized audiences/meetings.
• Use of parallel/informal systems for saving money, selling goods or access basic services.
• Level of coordination or interaction between local authorities, central state officials and local citizens for the implementation of small-scale and artisanal mining regulations.

3. **Role of small-scale and artisanal mining in the local community:** Embeddedness of the activity at the local level.

• How much do local community members know about small-scale and artisanal mining? How often do they interact with miners?
• What is the sociopolitical role of small-scale and artisanal mining associations in the communities? (statuses of mining associations, statuses of miners, miners’ participation in politics and in other local organizations)
• Who benefits the most from the activity? Who is not? Who is more impacted by it?
• Level of inclusiveness of small-scale and artisanal mining:
  o Number / type of local stores that supply useful products for the activity.
  o Number / type of jobs that depend on the activity.
• Other forms of dependence from small-scale and artisanal mining: contributions to public activities (local festivities, public goods, traditions) or to relevant actors from society (community associations, the church or officials).

• Indirect beneficiaries of small-scale and artisanal mining.

- Level of provision of small-scale and artisanal mining compared to other economic activities: Is the activity connected to the provision of any type of means of survival? For example, security, water access, housing, garbage collection, others.

4. Small-scale and artisanal miners’ patterns of action:

- Land access and decision-making processes concerning gold territories’ administration: How is land access controlled and how are the rules about land access enforced? Who decides how are gold territories managed? How are commitments regarding land management enforced?

• Profit distribution: Who decides who profits from gold territories? How is this profit distributed? Who is included or excluded from this distribution?

• Conflict-resolution strategies: What are the main sources of conflict in gold territories? What are the approaches to mitigate tensions? Who are involved in these tensions and what is the degree of participation of state authorities in solving disputes?

• How is the communication between miners and state authorities (local level and central state officials)? What channels of communication do they use? Do they have an input in law-making or law enforcement?
Appendix B: Guides for the interviews, Papers 1, 2, 3 and 4

I worked with two types of interviews for two types of actors: For experts, policy makers and local authorities, I used semi-structured interviews as I needed to addressed some specific themes but at the same time, I wanted to allow some space for the interviewees to highlight their own concerns.

On the other hand, interviews to local citizens and gold miners were mostly open-ended questions as I needed to ensure these actors could freely express their perceptions on the role of small-scale and artisanal gold mining in their local communities.

1. Guide for interviews to experts

- What is your area of expertise? What kind of studies have you conducted concerning small-scale and artisanal mining?
- What characterizes small-scale and artisanal mining in Peru/ Bolivia? (History, type of extraction, level of organization of the miners, magnitude and areas of work)
- What has been the record of the mining associations in ______ (selected studied areas in Peru and Bolivia) in public activities and politics? What has been the role of these associations in their home communities?
- What have been the most common sources of conflict around gold mining?
- What has been the central state/ regional and local government’s approach facing the proliferation of the activity in the last 20 years?
• What has characterized the relationship between small-scale and artisanal miners and the state in Bolivia/ Peru?

• Who has influenced the most the current regulation for small-scale and artisanal mining?

2. Guide for interviews to policy makers

• What is your area of expertise and what is your current professional role?

• What has characterized the relationship between gold miners and the state in ______ selected area in Bolivia or Peru) in the last 20 years?

• What has been the central state/ regional and local government’s approach facing the proliferation of small-scale and artisanal mining in the last 20 years?

• Do local authorities follow the instruction of central state officials in addressing gold mining activities?

• What are the characteristics and goals of the main policies regulating small-scale and artisanal mining and what have been the main challenges that you have observed in the implementation of those policies?

• Who has influenced the most the current design of the regulation to small-scale and artisanal mining activities? What actors (from the private sector or civil society) have been involved in the design and the implementation strategy of the policies to regulate artisanal mining?

• What is the level of coordination between your state office and the mining associations for policy implementation?
• What are the indicators of success and improvement used to assess the effectiveness of the current policies to regulate small-scale and artisanal mining?

3. **Guide for interviews to regional and local state authorities, and indigenous authorities**

• What is your area of expertise and what is the work your office does?
• How would you characterize the relationship between small-scale and artisanal mining associations in your community and local authorities?
• Who do you think small-scale and artisanal mining benefits the most?
• What have been the most common sources of conflict around gold mining? How do miners and/or authorities deal or mitigate these conflicts?
• What has been the local authorities’ approach facing the proliferation of gold mining in the last 10 years?
• What are the characteristics and goals of the main policies regulating small-scale and artisanal mining and what have been the main challenges that you have observed in the implementation of these policies?
• Who do you think has influenced the most the current design of the regulation to gold mining activities? In your opinion, what actors (from the private sector o civil society) have been involved in the design and implementation strategy of the policies to regulate small-scale and artisanal mining?
• What are the indicators of success and improvements used to assess the effectiveness of the current policies to regulate gold mining?
4. Guide for interviews to local citizens and miners

Interviews to local citizens and miners looked to allow the actors to talk freely about small-scale and artisanal mining in their local community. Since the idea was to engage closely with the interviewee, the questions and the language used was clear and direct.

- You and your community

  o You
    - How long have you lived here?
    - What do you do for a living?

  o How would you describe your community?

  Probes
    - number of inhabitants
    - occupations
    - sources of income
    - employment opportunities
    - age structure
    - community organizations
    - rich people, poor people

- What factors have been most challenging for your community and why?
Probes

- Access to basic resources
- Working skills
- Community divisions
- Level of state support
- Cultural differences
- Employment opportunities

- What kind of activities generate most of the economic opportunities?

Probes

- Direct and indirect benefits
- Local, regional or national state investment

- What kind of activity contributes the most to the development of the local community?

  How so?

Probes

- Contribution to access basic resources
- Contribution to local activities
- Immaterial contributions (preservation of traditions and other intangible goods)
• What have you heard about any type of small-scale and artisanal mining activities in the area?

_Probes_
- Area of work
- How long has the activity been taking place?
- Who are the miners?
- Place of birth of miners
- Age range of miners
- Knowledge on their activity
- Relationship between small-scale and artisanal gold mining and local productive activities

• Do you know any small-scale or artisanal gold miner?

_Probes_
- Personal experiences and ideas
- Profile of the miner
- Relationship between miners and the local community

• How is their activity similar or different from the one we saw with large-scale mining companies? (This question will be asked only for the relevant cases)
Probes

- Who is mining?
- What do they use for their activity?
- Nationality
- Contribution to the community
- Scale of the operations
- Procedures/ techniques
- Impact on the environment

• What do you see is the most challenging issue faced by small-scale and artisanal mining activities?

Probes

- Environmental impact
- State relations /Informality
- State regulations
- Sustainability of activities

5. Guide for interviews to miners

• You and your community

  o You
    - Have you lived here for a long time?
- What do you do for a living?
- What did you used to do before mining?

○ How would you describe your community?

_Probes_

- number of inhabitants
- occupations
- sources of income
- employment opportunities
- age structure
- community organizations
- rich people, poor people

- What factors have been most challenging for your community and why?

_Probes_

- Access to basic resources
- Lack of skills in certain areas
- Level of state support
- Cultural differences
- Lack of employment opportunities
• How are your daily working activities?

  *Probes*

  - Routines
  - Co-workers
  - Techniques
  - Implements and tools used
  - Transportation
  - Working cycle
  - Dependents
  - Safety measures

• Where do you get most of the implements and materials needed for mining?

  *Probes*

  - Supply chain
  - Services needed

• Where do you sell the mineral and how much can you make per week?

  *Probes*

  - Local businesses and networks involved in the gold trade
• What do you think is the impact of small-scale and artisanal mining in your community?

  Probes
  - Economic contributions
  - Provision of services or goods

• What is the role of mining associations in your community?

  Probes
  - Organization of the labor
  - Community roles
  - Local hierarchies
  - Relationship with local authorities

• How is the relationship between mining associations in your community and state representatives from the Ministry of Mines?

  Probes
  - Level of coordination within state institution
  - Level of participation of state officials in the implementation of regulation

• What do you think about the current laws on small-scale and artisanal mining?

  Probes
  - Knowledge on the laws and procedures
- Knowledge on the process of law enforcement
- Participation in the process of implementation
- Obstacles and advantages of legalization processes

- What do you think are the main challenges to formalize artisanal mining in your community?

_Probes_

- Interest in following the laws
- Interest in improving mining practices
Appendix C: Guide for the ethnographic work, Paper 2

Ethnographies in Tambogrande focused on four themes:

1. Stakeholder mapping: Recognition of socioeconomic organization: Who is who? Who are the miners? How easy or difficult is to identify them?

2. Role of small-scale and artisanal mining: How embedded is gold mining in the local community?: Number and type of local establishments that supply products useful for the activity, number and type of local establishments that depend on gold mining or that provide services to them, number of gold-buying stores (if existing) and types of jobs associated to gold mining. Who is benefiting the most from the activity? Who is not? Who is the most affected by it?

3. Perceptions, stereotypes, visions and expectations on small-scale and artisanal mining and the environment: How do people perceive the activity and the gold miners? How much do people know about their activity? Who are the miners in the eyes of local citizens? How is their activity perceived as different from that of large-scale mining? How much do people know about mining in Tambogrande? How are miners perceived locally? What is the perceived contribution or damage of small-scale and artisanal mining to Tambogrande? How does the activity affect the environment in contrast to large-scale mining in the eyes of local citizens?
4. For miners: The ethnography aims to build a profile of the miner. I focused on learning about their background, age range, knowledge and experience in mining. I also looked into their mining routines and procedures.
Appendix D: Survey, Paper 2

Proposed Project:

Perceptions of Small- and Large-Scale Mining in Tambogrande, Piura, Peru

SURVEY

(Translation from Spanish)

Note: The original survey began with a paragraph complying with the UBC Research Ethics requirements. This paragraph explained the purpose of the research, the person responsible for the study, the principal investigator’s personal information (Marcello Veiga) and the contact information of the office of the UBC Research Ethics. I read this note to potential participants before starting the survey and explained to them their right to stop answering questions whenever they wanted. The answers were anonymous.

*Unless specified, options will not be read. Only people from Tambogrande older than 18 can answer the survey.

** Use neutral words such as small-scale or artisanal gold mining to describe the activity here studied. Avoid the terms “informal” or “illegal” gold mining due to their potential negative connotation.
I. You

1. Sex
   - Female
   - Male

2. How old are you?
   - 20s or younger
   - 30s
   - 40s
   - 50s
   - 60s and older

3. How long have you lived in Tambogrande?
   - Less than 13 years
   - More than 13 years
   - All my life

4. Where do you live in Tambogrande?

----------------------------------
5. What do you do for a living?

☐ Commerce/ services

☐ Work for the state

☐ Agriculture/ agriculture related activities

☐ Independent

☐ Stay-home

☐ Other. Specify________

II. Your community

6. What factor has been the most challenging for Tambogrande’s economy and why?

-----------------------------------------------

7. What kind of activities generate the most economic opportunities in Tambogrande? (You cannot check more than two options)

☐ Commerce

☐ Agriculture

☐ Other________
III. Perceptions on small-scale and artisanal gold mining

8. Have you heard of small-scale and artisanal gold mining?
   ☐ Yes (go to question 8.1)
   ☐ No (go to question 9)
   ☐ DK/NA (go to question 9)

8.1 If yes, where does it take place?

----------------------------------

8.2 Where are small-scale and artisanal miners from?
   ☐ Tambogrande
   ☐ Lomas
   ☐ Ayabaca
   ☐ Huancabamba
   ☐ Somewhere within the region
   ☐ Out of Piura. Specify___________
   ☐ Foreigners. Specify___________

8.3 Are there small-scale or artisanal gold miners in Tambogrande?
   ☐ Yes  ☐ No  ☐ DN/NA
8.4 What do you think is the most challenging aspect of small-scale and artisanal gold mining in the area?

☐ The pollution it creates (use of mercury)

☐ It attracts more foreigners

☐ The level of violence it creates

☐ It does not follow state regulations

☐ I see no challenging aspect

☐ Other. Specify__________

8.5 In your opinion, is there any positive aspect or contribution coming from small-scale and artisanal gold mining to Tambogrande? (you can mark more than one)

☐ Yes, it creates jobs.

☐ Yes, it employs local citizens.

☐ Other. Specify__________

☐ No, there is no contribution.

☐ DK/NA

8.6 In your opinion, is there any positive aspect or contribution coming from large-scale mining to Tambogrande? (you can mark more than one)

☐ Yes, it creates jobs around the town.

☐ Yes, it employs local citizens.

☐ Yes, it generates revenues

☐ Other. Specify__________
☐ No, there is no contribution.

8.7 Is there any difference between large-scale mining and small-scale mining?

☐ Yes (go to question 8.7.1)

☐ No. They are the same (go to question 8.8)

☐ DK/NA (go to question 8.8)

8.7.1 If yes, what is the difference? (You can mark more than one answer)

☐ Large-scale mining pollutes more

☐ Small-scale mining employs more local people

☐ Large-scale mining is practiced by foreigners

☐ Large-scale mining operations occupy and require more resources, land and water

☐ Other. Specify__________

8.8 In your opinion, who benefits the most from small-scale and artisanal mining?

☐ The people of Tambogrande

☐ The central government

☐ Foreign companies/ foreigners

☐ Other. Specify__________

8.9 Do you know any small-scale or artisanal gold miner in the area?

☐ Yes

☐ No
9 Have you heard about a new large-scale mining project in the area?

☐ Yes

☐ No (go to question 10)

☐ DK/NA (go to question 10)

9.9 What is your opinion about that project? Do you support it?

☐ I support it

☐ I do not support it

☐ DK/NA

9.10 Why?

______________________________________________

10 Is there anything else you would like to add on small-scale and artisanal mining in Tambogrande?

-------------------------------------------------------------------------------