



A University of Sussex DPhil thesis

Available online via Sussex Research Online:

<http://sro.sussex.ac.uk/>

This thesis is protected by copyright which belongs to the author.

This thesis cannot be reproduced or quoted extensively from without first obtaining permission in writing from the Author

The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the Author

When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given

Please visit Sussex Research Online for more information and further details

Local politics, conflict and development in Peruvian mining regions

Javier Arellano Yanguas

A dissertation submitted in fulfilment of the requirements
for the degree of Doctor of Philosophy
of the University of Sussex

Institute of Development Studies
University of Sussex
October 2010

I hereby declare that this thesis has not been, and will not be, submitted in whole or part to another university for the award of any other degree.

Signature

UNIVERSITY OF SUSSEX

JAVIER ARELLANO YANGUAS
DPHIL DEVELOPMENT STUDIES

LOCAL POLITICS, CONFLICT AND DEVELOPMENT
IN PERUVIAN MINING REGIONS

SUMMARY

This thesis examines the effects of a collection of policies that determine the mandatory distribution of mining, gas and oil revenues between national and sub-national governments, and the greater involvement of mining companies in local development. I have labelled this set of policies, which aims to reduce social conflict and promote local development, the New Extractive Industry Strategy (NEIS).

Chapter 1 describes the implementation of these policies in Peru and highlights their significance to the mining industry worldwide. Chapter 2 describes the methodology of the thesis and introduces the three field research regions. Chapter 3 outlines the national socio-political context for the implementation of the NEIS.

Chapters 4–6 deal with the effects of the NEIS on social conflict. I argue that the implementation of the NEIS has not only failed to reduce conflict but has actually exacerbated it. After reviewing the debates linking extraction and conflict (Chapter 4), Chapter 5 demonstrates that conflict is strongly associated with the volume of mining revenue received by sub-national governments.

Chapter 6 presents a typology of conflicts that helps to explain the correlation between mining revenue and unrest. In addition to well-known conflicts that are related to the adverse impact of mining on livelihoods and the environment, the study identifies two other types. In the first, peasant communities employ social conflict to increase their bargaining power with the mining companies for material compensation. In the second, the large volume of mining revenue generates disputes over access to or use of these financial transfers.

Chapters 7–8 show that the NEIS has not delivered its development promises. Chapter 7 illustrates how regional and municipal governments in receipt of high per capita volumes of mining revenue transfers did not improve their economic and welfare indicators any more than the rest of the country. Chapter 8 proposes that a combination of obstructive political factors trapped regional and municipal authorities and local populations in a myopic political game that prioritised quick short-term spending over any long-term benefits to be gained from better planned expenditure. Finally, Chapter 9 draws some conclusions and makes some suggestions.

Acknowledgments

The completion of this thesis was only made possible due to the cooperation and support of a number of people and organisations. I embarked upon my DPhil because Professor Mick Moore helped me discover that I had a relevant topic. I continued to enjoy Mick's help during the three years I spent researching and writing the thesis, and owe both him and Professor Fiona Wilson a debt of gratitude for their wise guidance. During my field research, they encouraged me to embrace the unexpected and not to be held back by preconceived notions and predetermined methodologies. This advice allowed me to go beyond the original scope of the study, prompting me to learn and employ different methodologies. In writing up the thesis, I also benefited from their insightful comments on various drafts. Sometimes, I felt overwhelmed at having two demanding supervisors but I very much appreciated their frankness and trust in my ability to improve the thesis.

Thanks are due to the Government of Navarre for the doctoral scholarship that made this study possible, and to the Society of Jesus (Loyola Province) for financial support in the initial stages. I am also grateful to the Centre for the Future State at IDS for supporting my participation in international seminars on *The political management of natural resource revenues* in Lima and Quito; for giving me the opportunity to attend the Institute for Qualitative and Multi-method Research at the University of Syracuse; and for facilitating the publication of my findings on conflict in mining regions.

The research behind this thesis would not have been possible without the cooperation of all the interviewees who graciously gave up their time and granted me the benefit of their knowledge. I am especially indebted to those who helped me identify the right people and obtain their contact details, and those who assisted me in planning the practicalities of travelling around the mining areas of Pasco, Ancash, and Moquegua.

In Lima, José de Echave (Cooperación), Nilton Quiñones and Epifanio Baca (Propuesta Ciudadana), and Edgardo Cruzado facilitated access to the relevant people and organisations. In Cerro de Pasco, Cesar López Jurado and Andrés Avelino (Labor) were immensely helpful in providing background information,

facilitating contact with mayors and peasant communities, and advising on travel and accommodation in the region.

In Ancash, Richard Moreno and Manuel Huaray (CEPES) provided vital information about the region and contact details for its authorities. Alfredo Gamio, Elena Marquina, Jaime Mendoza, Hernan Pacha, and Silvia of CEOP-Ilo were wonderful hosts during my field research in Moquegua. Here, I also enjoyed fascinating conversations and a most useful seminar with Denis Rojas, Juan Zúñiga, and other colleagues at Labor.

Thanks are due to the mining companies that were willing to discuss their perspectives of the situation: Antamina, Barrick, Atacocha, Milpo, El Brocal, Buenaventura, Volcan, Pan American Silver, Southern Peruvian Cooper Corporation, and Anglo American.

During my stay in Peru, I was an associate member of the Institute of Peruvian Studies and the Catholic University. I am most grateful to Marisa Remy of the former for her openness in sharing her knowledge of regional and local politics, and for organising a *mesa verde* (green table) in September 2008 for the discussion of the preliminary findings of my field research. The comments of colleagues who participated in this seminar were very helpful in identifying threads in the data I had collected.

At different times, Javier Iguñiz, Alejandro Diez, Federico Helfgott, Martin Scurrah, María Burneo, and Bruno Revesz provided information, bibliographies and helpful reflections on my research. I also owe a special debt of gratitude to Miguel Zegarra for helping me compile the municipal figures dataset that I use in Chapters 7 and 8.

At IDS, I am most grateful to Angela Dowman for her help with all the administrative formalities, and her genuine interest in the well-being of each individual DPhil candidate. Thanks are also due to Diana Conyers, David Leonard, Anu Joshi, Andrés Mejía, Peter Houtzager, Richard Crook, Mark Berenson, Lindan Waldman and other colleagues who made helpful comments during and after my research outline and work in progress seminars.

During my time in Brighton, I learnt a lot through participating in Governance Team reading groups and seminars, with the additional advantage of the sessions being

more fun than spending long hours by myself. I also enjoyed the kindness and efficiency exhibited by the Governance Team administrators – thanks to Caroline, Camila, Adam, Chris, and a particular tribute to the late Linda Bateman.

At IDS, I also met a wonderful group of fellow DPhil candidates. I was fortunate enough to enjoy discussions with, receive advice from, and share time, concerns and joy with Santhosh Mathew, Louise Tillin, Julian Salazar, María Teresa Armijos, Will Pritchard, Phemo Kgomo, Linnet Taylor, Florence Dafe, Machiko Tsubura, Marika Djolai, Suchi Pande, Ronald Adamtey, Dario Debowicz, Pedro Martin, Sunita Abrahams, Tobias Denskus, Shandana Mohmand, and Rehab Osman.

I am grateful to Tony Bebbington for his invitation to participate in the *Territory, Conflict and Development in the Andes* seminars organised by the School of Environment and Development at the University of Manchester; and I would like to thank the participants of these seminars for stimulating discussions and insightful comments on data that I used in some chapters of my thesis.

Santiago Manuin (see Chapter 1), Carlos Diharce, and Mimi Cuq reinforced my motivation to conclude this thesis by making me appreciate that the study was important for other people as well; and their encouragement and friendship fortified me during the long months of writing. I would also like to thank Javier and Jenny, Manolo and Amelia, Nilton and Lucía, and Edgardo Cruzado for making us welcome at their homes during our visits to Lima.

Above all, I am grateful to Noemí. We began our journey together in Cerro de Pasco, during the initial stage of my field research. Living in the self-proclaimed highest city in the world proved to be a tough beginning, but she took it in good spirit, helped me cope with the harsh conditions, and collaborated in the compilation of data on the municipalities of the region. Unfortunately, I could not repay her when it came to writing up the thesis in Brighton. The need to devote longer hours than expected to analysis and composition ruined our plans for a quiet, enjoyable life. Nevertheless, she not only overcame the initial frustration but generously continued to offer her support during the final stressful months.

CONTENTS

Chapter 1: The New Extractive Industry Strategy (NEIS): the Peruvian testing ground.....	1
1.1 The Peruvian testing ground	1
1.2 The NEIS: making a virtue out of necessity?	12
1.2.1 Conflicts, ‘new mining’ and ‘going local’	12
1.2.2 The legitimising logic: radical polycentrism	14
1.3 The Peruvian version of the NEIS.....	15
1.3.1 The canon minero.....	17
1.3.2 The Mining Programme of Solidarity with the People (MPSP).....	21
1.4 The current debate on extractive industries, conflict and development	23
1.5 Thesis outline	28
Chapter 2: The research journey	30
2.1 Thesis methodology	31
2.1.1 What did I want to know?	31
2.1.2 How did I set about finding the answers?.....	33
2.1.3 Selection of the field research sites.....	36
2.2 The research sites.....	38
2.2.1 Pasco.....	39
2.2.2 Ancash.....	42
2.2.3 Moquegua.....	44
Chapter 3: Where the mines are: the socio-political landscape of the Peruvian countryside	46
3.1 Changes in state-citizen relations in the countryside	48
3.1.1 The revolutionary experiment of Velasco Alvarado (1968–1975)	49
3.1.2 The restoration of democracy and the internal war (1980-1990)	52
3.1.3 Fujimori (1990-2001): authoritarianism and neo-liberalism.....	53
3.1.4 The new democratic era (2001–2008): political reform straitjacketed by an untouchable economic model.....	56
3.2 The unsatisfactory outcomes of neoliberal policies: territorial inequalities and lack of trust in public institutions	58

3.2.1	The poverty gap between rural and urban population.....	59
3.2.2	Erosion of public's trust in political institutions	63
3.3	Economy of extraction in its historical perspective: political dynamics and social outcomes	64
3.3.1	Economic cycles and political dynamics	64
3.3.2	Social outcomes of the extractive economy	67
3.4	The emergence of new and more dispersed political actors.....	69
3.4.1	Peasant communities	69
3.4.2	Regional movements and other local actors	71
Chapter 4:	Perspectives on social conflict in mining areas.....	74
4.1	What do different Peruvian actors think about social conflict and mining?	75
4.2	What does the academic literature say about the relationship between mining and social conflict?	79
4.2.1	The comparative literature.....	80
4.2.2	Literature on Peruvian cases.....	81
4.3	A new analytical framework for the study of the relationship between mining and conflict.....	83
4.3.1	The identification of new mining-related conflicts.....	85
4.3.2	The relationship between intentions and legitimising discourses.....	86
Chapter 5:	More money, more conflict	89
5.1	The dataset	90
5.2	Main features of social conflict in Peru (2004-2008): the growing importance of mining.....	92
5.3	What factors explain regional and temporal variations in conflict?	96
Chapter 6:	How the NEIS multiplied conflicts: a local perspective	107
6.1	A typology of mining-related social conflicts	109
6.2	Anti-mining conflicts: showing the way	111
6.2.1	Actors and motives	113
6.2.2	Mobilisation structures and alliances.....	114
6.2.3	The development of an attractive and flexible narrative.....	115
6.2.4	The adaptation of the repertoire	116
6.2.5	The influence of the NEIS on emblematic anti-mining conflicts	117

6.3 Communities enhancing their bargaining power to negotiate the redistribution of mining benefits	120
6.3.1 Peasant communities and companies interacting in a changing environment.....	121
6.3.2 Triggers of ‘distributive’ conflicts.....	122
6.3.3 The case of Pierina.....	123
6.3.4 Cases around Antamina	125
6.3.5 Cases in Pasco.....	129
6.3.6 How do communities and companies engage in social conflict?	133
6.4 <i>Canon minero</i> transfers at local level: pouring oil on the flames	135
6.4.1 The Moqueguazo: the curious path from the hills to the bridge	137
6.4.2 The domino effect in Ancash: from pressuring the mayors to enlisting the whole region in the battle against national policies	140
6.5 Conclusion	143
Chapter 7: Fiscal transfers and local welfare	147
7.1 What does the literature say about development in mining and oil regions?	150
7.2 Regional level analysis	154
7.3 Municipal level analysis	159
7.3.1 The application of propensity score matching methods	161
7.3.2 The results: canon transfers had very little impact	164
7.3.3 Checking the robustness of the results	167
Chapter 8: Why has the New Extractive Industries Strategy (NEIS) failed?	170
8.1. Decision-making mechanisms for public capital investment in sub-national governments	171
8.1.1 Rules for the utilisation of different types of revenue	172
8.1.2 The budgeting schedule	173
8.1.3 Distribution of functions among levels of government.....	174
8.1.4 Participatory mechanisms for decision-making at sub-national level	176
8.1.5 Quality control of capital expenditure	178
8.2 Influence of <i>canon</i> transfers on municipal capital expenditure patterns	179
8.2.1 Variables and method specification.....	179
8.2.2 Results: less spending on basic services and more on concrete.....	182

8.3	Lack of technical capacity does not explain everything	186
8.3.1	The technical capacity of municipal government: putting the concept into action	187
8.3.2	The non-correlation between capacity and quick spending	192
8.4	Political survival, <i>canon</i> transfers, jobs, mafias, and popular participation in Conchucos Valley (Ancash)	193
8.4.1	The tolerance of corruption.....	195
8.4.2	The distortion of participatory mechanisms	200
8.4.3	The limitations of transparency and capacity building.....	204
8.5	Variations on the same theme: higher technical capacity and the promotion of clientelism in Moquegua	207
8.6	Conclusion	211
Chapter 9:	Conclusion	214
9.1	What does this study say about the implementation of the NEIS? ...	214
9.1.1	The main argument	215
9.1.2	Limitations of the analysis	217
9.2	Lessons from the Peruvian case	220
REFERENCES	225
APPENDIX I: Change in production and international prices for principal Peruvian minerals (2000–2008), taking 2000 as the base year		243
APPENDIX II: Poverty levels and income per capita in different geographical regions of Peru		244
APPENDIX III: Summary of principal mining companies in the field research regions		245
APPENDIX IV: Main features of municipalities included in the field study		246
APPENDIX V: Criteria for the definition of categories in the three different classifications of conflict		247
APPENDIX VI: Summary of variables used in the regression analysis of conflicts.....		248
APPENDIX VII: Quantitative analysis of the impact of mining on economic and welfare indicators in Peruvian regions.....		250
APPENDIX VIII: Variables used in the regression analysis of mining-related variables over changes in economic and welfare indicators at regional level.....		263

APPENDIX IX: Summary of variables used in the analysis of differences in welfare indicators between <i>canon</i> -rich and <i>canon</i> -poor Peruvian localities (1993–2007)	266
APPENDIX X: Robustness of PSM results.....	268
APPENDIX XI: Summary of variables used in the regression analysis of <i>canon minero</i> transfers and other socio-economic variables for the allocation of capital investment in municipalities with more than 3,000 inhabitants	271
APPENDIX XII: Summary of the percentage of the capital investment budget allocated to main sectors in researched municipalities by municipality and year (2005–2008)	272
APPENDIX XIII Summary of welfare indicators in researched municipalities over the period 1993–2007	278

LIST OF FIGURES

Figure 1.1 Relationship between social conflict and poor developmental performance in mining regions: two competing conceptual overviews	8
Figure 1.2 Per capita fiscal transfers to sub-national governments in Peruvian Nuevos Soles (2007)	16
Figure 1.3 <i>Canon minero</i> and royalty ^a transfers to sub-national governments (1997–2008)	21
Figure 2.1 The six main Peruvian mining regions (the three regions selected for the study are shaded in orange).....	39
Figure 2.2 Field research sites in Pasco.....	40
Figure 2.3 Field research sites in Ancash.....	43
Figure 2.4 Field research sites in Moquegua	45
Figure 3.1 Net inflow of foreign direct investment as a percentage of GDP for Peru and other groups of relevant countries, 1970–2007	55
Figure 3.2 Change in GDP and GDP per capita, 1950–2008 (PEN at 1994 rates).....	65
Figure 3.3 Peruvian exports per capita, 1950–2008 (USD at 1950 rates) / minerals and fuel as a percentage of total Peruvian exports, 1950–2008	67
Figure 5.1 Comparison of the number of new conflicts breaking out year by year with those reported to be in progress in the last month of each year (2004–2008)	93
Figure 5.2 Conflicts by principal actor 2004–2008 (number of conflicts and percentage of total).....	95
Figure 5.3 Conflict by motive 2004–2008 (number of conflicts in each category and percentage of total).....	96
Figure 5.4 Correlation between <i>canon minero</i> transfers per capita and ACII at regional level in the period 2005–2008.....	102
Figure 5.5 Correlation between poverty and ACII at regional level in the period 2005–2008.....	103
Figure 7.1 Map of Peruvian districts according to different levels of total <i>canon</i> transfers per capita during the period 2001-2007.....	163

LIST OF TABLES

Table 1.1 Changes in the criteria for the distribution of the <i>canon</i>	20
Table 2.1 Statistics for Pasco, Ancash, and Moquegua	38
Table 3.1 Evolution of Gini coefficient, 1986–2003.....	59
Table 3.2 Percentage of population below the poverty line in different geographical regions of Peru, 2008.....	60
Table 3.3 Average monthly per capita income in different geographical areas of Peru, 2008	60
Table 3.4 Relative importance of the main metropolitan area in relation to the rest of the country, and the poverty gap with respect to different geographical areas in various Latin American Countries.....	62
Table 3.5 Level of trust in political institutions: a comparison between Peru and Latin America (LA) as a whole.....	63
Table 5.1 Number, intensity and duration of social conflicts in Peru, by year of outbreak and connections with mining	94
Table 5.2 Regression of poverty levels and mining-related variables on the incidence of conflict by region (2005–2008).....	101
Table 5.3 Complementary regression models of <i>canon minero</i> transfers, poverty levels and other variables on the incidence of conflict by region (2005–2008)	105
Table 6.1 Typology of social conflicts in Peruvian mining regions.....	110
Table 6.2 Per capita <i>canon minero</i> transfers (US dollars) in the three Andean municipalities of Mariscal Nieto-Moquegua (2004–2008)	138
Table 6.3 Percentage of the 2007 capital expenditure budget actually spent and percentage of the vote secured by the winning candidate in the 2006 municipal elections, in the main municipalities around Antamina	141
Table 7.1 Distribution of actual public capital expenditure according to different levels of government (2001-2008).....	148
Table 7.2 Summary of panel regressions of mining-related variables on the annual change in economic and welfare indicators in Peruvian regions.....	158
Table 7.3 Estimate of the average effect of high <i>canon</i> transfers to Peruvian municipalities (2001-2007) on the change in the percentage of people between 15 and 24 year old with secondary education over the period 1993-2007	165

Table 7.4 Estimate of the average effect of high <i>canon</i> transfers to Peruvian municipalities (2001-2007) on the change in the percentage of households with drinking water supply at home over the period 1993-2007	166
Table 7.5 Estimate of the average effect of high <i>canon</i> transfers to Peruvian municipalities (2001-2007) on the change in the percentage of households with sanitation facilities at home over the period 1993-2007	166
Table 7.6 Estimate of the average effect of high <i>canon</i> transfers to Peruvian municipalities (2001-2007) on the change in the percentage of households with electricity supply at home over the period 1993-2007	167
Table 8.1 Percentage of actual capital expenditure by sector and year in Peruvian municipalities with between 3,000 and 200,000 inhabitants	181
Table 8.2 Regression of <i>canon minero</i> transfers and other socio-economic variables on the allocation of capital investment in municipalities with more than 3,000 inhabitants, by sector according to annual budget execution (2005–2008)	184
Table 8.3 Municipal capacity index (MCI) for 18 municipalities and comparative proportional execution of the capital investment budget (2007–2008).....	190

LIST OF ACRONYMS

ACII	Annual Conflict Incidence Index
AMF	Antamina Mining Fund
APRA	American Popular Revolutionary Alliance
CIDA	Canadian International Development Agency
CONACAMI	National Confederation of Communities Affected by Mining – <i>Confederación Nacional de Comunidades Afectadas por la Minería.</i>
CPCC	Cerro de Pasco Copper Corporation
CSR	Corporate Social Responsibility
DFID	United Kingdom Department for International Development
ECOSERM	Communal Multiple Services Company – <i>Empresa Comunal de Servicios Múltiples de la Comunidad de Rancas</i>
EITI	Extractive Industries Transparency Initiative
FEDIPM	Front for the Defence of the Interests of the People of Moquegua – <i>Frente de Defensa de los Intereses de Moquegua</i>
GMI	Global Mining Initiative
HDR	Human Development Report
ICMM	International Council on Mining and Metals
IDS	Institute of Development Studies
IFC	International Financial Corporation
IFI	International Financial Institutions
IMF	International Monetary Fund
MCI	Municipal Capacity Index
MEF	Ministry of Economy and Finance
MEM	Ministry of Energy and Mining
MIB	Modified Institutional Budget

MMP	Medium-term Municipal Plan
MMSD	Mining, Minerals and Sustainable Development
MP	Member of Parliament
MPSP	Mining Programme of Solidarity with the People (MPSP) – <i>Programa Minero de Solidaridad con el Pueblo</i>
NEIS	New Extractive Industry Strategy
NGO	Non-Governmental Organisation
NICS	National Institute of Computing and Statistics – <i>Instituto Nacional de Informática y Estadística (INEI)</i>
NOEP	National Institute of Computing and Statistics – <i>National Office of Electoral Processes (ONPE)</i>
NPIS	National Public Investment System
NSMOE	National Society for Mining, Oil, and Energy – <i>Sociedad Nacional de Minería, Petróleo y Energía (SNMPE)</i>
OIB	Opening Institutional Budget
OIMI	Organisation for the Improvement of Municipal Investment – <i>Mejorando la Inversión Municipal (MIM)</i>
OLS	Ordinary Least Squared
PEN	Peruvian New Sol
PSM	Propensity Score Matching
RE	Random Effects
REI	Resource Endowment Initiative
SINAMOS	National System of Social Mobilisation
SPCC	Southern Peru Copper Corporation
USAID	United States Agency for International Development
USD	United States Dollar
VAT	Value Added Tax

Chapter 1

The New Extractive Industry Strategy (NEIS): the Peruvian testing ground

1.1 The Peruvian testing ground

On the 5th of June 2009, as I was reading the Peruvian newspapers on the internet, I got quite a jolt. A serious clash in the northern town of Bagua between riot police and a crowd of Awajun and Wampis indigenous people dominated the front-page headlines. The pictures showed a fierce battle, and the name of the spot, the Devil's Curve, did not augur well. I immediately thought of my Awajun friends, knowing that some of them were involved in the protest. A frantic online search for further details confirmed my fears; there had been a bloodbath with the police firing on protesters. Santiago Manuin, the respected Awajun leader and a very close friend of mine, was among the victims. After several phone calls I managed to piece together what had happened: a bullet had hit Santiago in the abdomen while he was attempting to negotiate the withdrawal of the protesters with the police. His condition was critical but the doctors hoped to save him.

The protest in Bagua challenged a new law¹ that made it easier for private investors to acquire and lease communal land in the Amazon. The new law aimed to facilitate new investment in mining and oil exploration. Indigenous groups in the Peruvian Amazon had opposed this law for more than a year, convinced that it eroded their capability to manage their territories according to their needs. The Awajun and Wampis people vigorously supported the protest because *the oil and mining companies had intruded into their homeland and the new law made this even easier* (ODECOFROC, 2009).

In September 2009, I flew to Peru and went to meet Santiago, who was still in hospital in the coastal town of Chiclayo, a long way from his home. After more than three months, he was still trying to make sense of what had happened in Bagua, and the implications for the future of the Awajun people. Santiago knew that I had spent many months researching into issues of social conflict and development in different mining regions of Peru. He was interested to learn what was happening in other parts of the country. I told him that although the level of casualties was

¹ Legislative decree N° 1015

unusually high in Bagua, conflict was not unusual. The rapid increase in mineral prices (2004–2008) had been accompanied by an upsurge in the incidence of social conflict in mining regions (Defensoría del Pueblo, 2009). However, as I explained to Santiago, not all disputes over mining were the same. In fact, the social conflicts I had studied were different from the one in which he had been engaged.

To illustrate my point, I told Santiago the stories of Antonio and Isabel, who I had met during my research.² Antonio was a veteran social leader in one of the communities close to the Antamina mine in the highlands of Ancash. He had recently been involved in a dispute between his community and the Antamina Company about the planned expansion of the mining operation. Back in the 1990s, Antonio had been strongly opposed to large-scale mining in his region, but his position had since softened. His current struggle no longer focused on the outright rejection of mining, but on seeking fairer compensation for selling community land to the mining company.

Isabel was a young woman from a landless family living in an Andean district in Moquegua. She had been among the protesters who in July 2008 blockaded the Montalvo Bridge in Moquegua and took more than 70 policemen hostage in an attempt to force the national government and Parliament to change the rules guiding the distribution of mining revenue between Moquegua and the neighbouring region of Tacna (El Comercio, 2008d). When she told me her story two months later, she said that she still felt frightened at the thought of the risks they had taken. However, she did not seem to regret what she had done. On the contrary, participating in the demonstration had helped her get a job in her municipality employed in public works financed by mining revenue transferred from central government to her municipality.

Santiago, Isabel and Antonio expressed different views on to the benefits and costs that the expansion in mining could bring to their lives, and all three had become involved in mining-related social conflicts. During the period 2002–2008, mining appears to have been mainly responsible for the exceptional rates of economic growth and the upsurge in social conflict that threatens Peru's political stability (The Economist, 2008). The Peruvian economy grew at an annual average rate of 7 per

² I have changed names and some contextual references to preserve anonymity.

cent (INEI, 2009d) and some international pro-market analysts suggested Peru was likely to become one of the new Latin-American ‘dragons’ (The Economist, 2009). The expansion of the extractive sector was the reason (Macroconsult, 2008).³ By 2007, mining and oil constituted 70 per cent of Peru’s exports and almost 30 per cent of the internal tax revenue (Ministerio de Economía y Finanzas, 2009a). The economic upturn appeared to have positive welfare effects with the overall poverty level declining from an estimated 54 per cent of the population in 2001 to 36 per cent in 2008 (INEI, 2009a).

Yet despite these positive aspects of mining expansion, social conflicts, often violent ones, multiplied. According to the Ombudsman’s office⁴, from February 2004 to December 2008 the number of conflicts in the country increased from 47 to 197 (Defensoría del Pueblo, 2009). The majority were either directly related to mining or took place in mining regions (Apoyo, 2009b; Panfichi, 2009).

The assertion that there is a close connection between mining and social conflict is not surprising, as experiences of large scale mining in other poor countries has shown. This relationship has been widely studied in Peru and elsewhere (see Chapter 4). At first glance, therefore there would seem to be nothing unusual or puzzling about Peru’s recent experience.

Yet it is my contention that there is a puzzle. This is because conflicts multiplied during a period when the Peruvian authorities implemented a set of policies deliberately designed to reduce social unrest related to mining. These policies were a response to social mobilisation in the early 2000’s that raised questions about the political feasibility of further expansion of the mining sector. The government and

³ From 2001 to 2008 the importance of mining to the national economy grew steadily. In 2001-2004, there was an important increase in the production of copper and gold, the two main minerals in the Peruvian mining sector (see appendix I). In 2005-2008, although the production of most minerals tended to remain stable, the boom in international prices multiplied the importance of mining in terms of exports and tax revenue. A report commissioned by the National Society for Mining, Oil, and Energy (NSMOE) estimated that, taking 2006 as the baseline, a decrease in mining activity or mineral prices would have had a critical negative impact on economic growth and the balance of public finances (Macroconsult, 2008).

Despite this rising dependency of the economy on mining production, the government kept control of the fiscal balance, the balance of international payments and inflation; they reduced the external debt, increased the foreign currency reserves and maintained a reasonable foreign currency exchange rate (Ministerio de Economía y Finanzas, 2009a).

⁴ The Ombudsman’s office – called *Defensoría del Pueblo* in Spanish – is an state institution created to protect citizens’ fundamental and constitutional rights, and to oversee the state government, its administration, and the public services provided to the population. In contrast to most state institutions, the Ombudsman’s office is widely trusted by the public.

the mining companies faced massive local opposition to the expansion of the Yanacocha mine in Cajamarca, and to the construction of new mines in Tambogrande (Piura) and Quellaveco (Moquegua).

In response, the government and mining companies addressed this opposition by formulating a set of policies designed to convince local people that mining could benefit them, and to project a more benevolent image of the mining companies. Two policy innovations are especially important. The devolution of a substantial volume of mining revenue from central government to sub-national governments in mining areas means sub-national governments in the mining areas now have incomes many times higher than those of sub-national governments elsewhere in the country. The second policy innovation is the promotion of greater involvement by mining companies in developmental activities at local level. Companies have increased their Corporate Social Responsibility (CSR)⁵ budgets and apparatuses in order to spend these funds locally in the areas of the country where they operate.

These policies are not unique to Peru. They are part of the attempt of the International Financial Institutions (IFI) and transnational mining companies to project a more responsible and developmental image of the mining industry worldwide. Accordingly, I have labelled these policies the 'New Extractive Industries Strategy' (NEIS).

The result of the implementation of this strategy in Peru is especially important for the international mining companies because the mining industry has planned further massive investments in the country. At the end of 2009, Peru had a pipeline of mining projects valued at over USD 31 billion, representing 6 per cent of the total mining investment forecast worldwide.⁶ Peru is thus fifth in the global ranking of mining investment, below only the mining giants of Canada, Australia, Brazil and Russia. This means that Peru is the highest among the so-called 'developing countries', and also the smallest and most dependent economy among the top ten nations on the list (Raw Material Group, 2010).

⁵ In this thesis I use the term CSR in a quite restricted sense to refer to corporate philanthropy - mining companies donate some of their profits or resources to promote local development. Donations may come from the company directly or through a separate, company-sponsored foundation or public charity.

⁶ The Peruvian Ministry of Energy and Mining is even more optimistic, reporting a project pipeline valued in excess of USD 35 billion at the beginning of 2010 (Ministerio de Energía y Minas, 2010a).

Second, the result of the new policies is also important because Peru has become a testing ground for their implementation. The steadily growing demand for commodities by emerging economies and the resultant high price of minerals has boosted the investments made by mining companies worldwide (UNCTAD, 2007). As in Peru, the expansion of mining activities has been frequently met by opposition from local communities who remain unconvinced that mining will benefit them (Ballard & Banks, 2003; Bebbington, Hinojosa, Humphreys-Bebbington, Burneo, & Warnars, 2008; Evans, Goodman, & Lansbury, 2002; Filer & Macintyre, 2006; Hilson, 2002; IIED, 2002; MacIntyre & Foale, 2002; Mate, 2002; Moody, 2007). A similar set of NEIS-like policies has been promoted in different countries (ICMM, 2006c:57-58). Therefore, the outcome of NEIS in Peru constitutes a potential template for a new strategy that the mining industry could adopt for the intensification of mining activities in other developing countries.

When I met my friend Santiago after the Bagua clash, I had already spent two years researching the impact of the implementation of the NEIS in Peruvian mining regions. I set out to answer two main questions: (i) why did social conflict escalate so dramatically in the Peruvian mining regions after the implementation of the NEIS? (ii) is there evidence to suggest that the implementation of NEIS has improved the economic and social wellbeing of people in mining areas?

The short answers to these questions are as follow:

- (i) The new rules for the distribution of the profits from the mining operations provide incentives for local actors to resort to strategies of conflict in order to maximise their share in these profits.
- (ii) The NEIS has not had any significant effect on measurable changes in economic and welfare indicators in the sub-national jurisdictions whose governments receive high volumes of mining revenue transfers.

The methodology I chose to answer these questions was the following. Firstly, I compiled two comprehensive datasets relating to welfare, economy, budget, politics and mining at regional and municipal levels. I used these datasets to compare different regions and municipalities. Secondly, I undertook detailed field research in some of the most remote mining areas of the country to get to know the local dynamics generated by the implementation of the NEIS. Thirdly, I interviewed,

company representatives and government officials in an attempt to understand the complexities of the situation.

In this thesis I argue that the implementation of the NEIS has not only failed to reduce social conflict but has increased it. I first show the association between such conflict and the mining revenue received by the sub-national governments of the region (Chapter 5). Second, I explain the local political processes behind this association (Chapter 6). My findings significantly modify the conventional accounts of conflicts and mining that focus predominantly on the adverse impacts of mining on livelihoods and the environment. Although I do not deny the harmful effects that mining can have on the environment and local people's livelihoods, I find that mobilisation around these issues was not responsible for the dramatic increase in conflict in the period 2005 to 2008. Instead, conflict became increasingly concentrated in the regions with the most profitable mines, which had therefore received the highest per capita transfers of mining revenue from the central government. I argue that two different mechanisms account for this 'income' effect. First, as part of the NEIS, the Peruvian government allowed the mining companies to retain the largest proportion of the windfall profits generated by the dramatic increase in mineral prices and depicted them as key actors with a moral duty to promote local development. This reinforced the popular perception of both state capture by mining companies and the companies' obligation to take better care of the local population. In the absence of other effective institutional mechanisms, local populations, especially the peasant communities closest to the mines, used social conflict to negotiate for greater monetary compensation and employment opportunities with the companies. The second mechanism I discovered is even more unexpected: the large volume of mining revenues accruing to the sub-national governments generated new disputes over access to or use of these financial transfers. Local populations and sub-national governments engaged in protracted conflicts to maximise any advantage they could gain from these transfers.

The strategy did not deliver its developmental promises. Despite the significant amount of revenue allocated to the regional and municipal governments in mining areas and the increase in the money spent by mining companies in social projects, my analysis reveals that over the period 2002-2008, economic and welfare indicators did not improve more in those areas than in the rest of the country. Official accounts explain this as a lack of managerial capacity in the sub-national

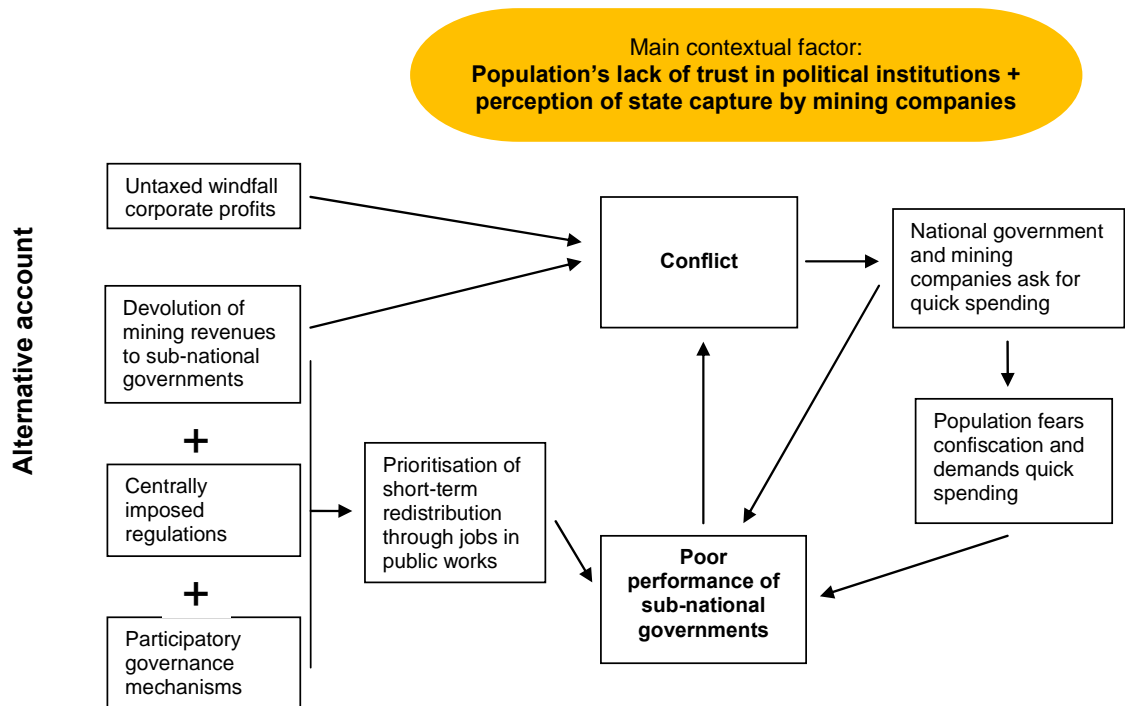
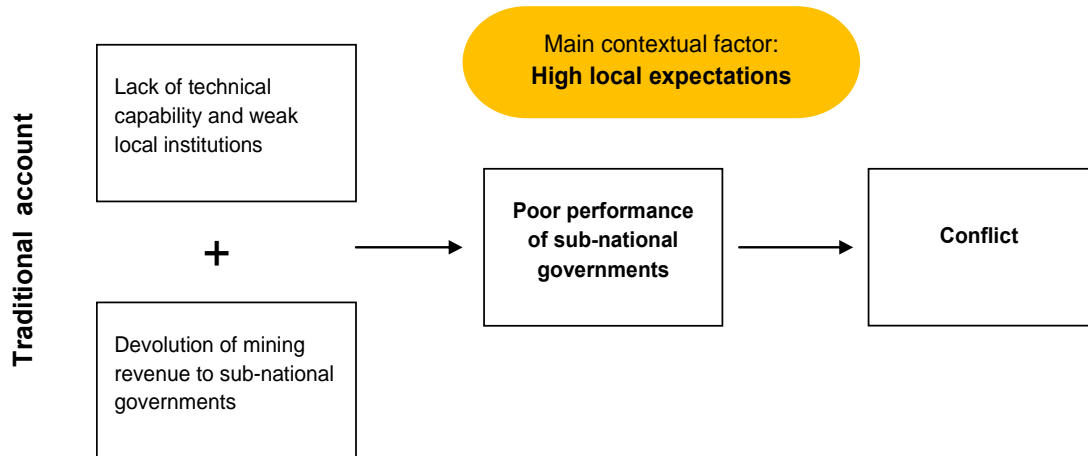
governments. However, my investigation into the processes involved in the allocation of resources in mining municipalities reveals a more complex story in which political incentives for short-term spending and rent seeking rather than 'lack of capacity' played a central role.

Sub-national governments receiving high levels of mining revenue transfers had to operate in a political context not conducive to the efficient spending of large capital investment budgets. Three factors were especially problematic. First, sub-national governments needed to comply with a welter of centrally imposed regulations on capital spending that were originally designed not to facilitate spending, but to deal with scarcity. Second, the population in rural areas of the country do not trust political institutions, whether national or local. They have historical reasons to be sceptical about the stability of public policies and the management of financial resources, thus, they demanded quick spending of the mining revenue transfers because they feared that delay would lead to a loss of resources due to the corruption of sub-national authorities or confiscation by the central government. Moreover, the introduction of participatory governance mechanisms in Peru's decentralisation policy increased popular power to enforce quick spending while failing to tackle corruption. Third, the escalation of conflicts in mining regions caused the national government and mining companies to put pressure on local authorities to speed up the implementation of the capital investment budgets. They wanted to reduce the incidence of disturbance by demonstrating that mining could bring real benefits to the population. The combination of these three political circumstances trapped regional and municipal authorities and local populations in a myopic political game that prioritised the short-term redistributive advantage of creating jobs in the public sector over any long-term benefits from better planned expenditure.

The government and mining companies have drawn their own conclusions as to the connection between increased social conflict and the use of financial resources transferred to sub-national governments. They argue that inefficient spending by sub-national governments was a major cause of conflict in mining areas. While I agree that it is part of the explanation, it is far too simplistic and takes no account of the context in which sub-national governments have to operate. I argue that the opposite is also the case: the threat of violence in combination with other features of the Peruvian polity, exacerbated the inefficient use of mining revenue by sub-national governments. In Figure 1.1, I summarise these two competing narratives

on the relationship between conflict and the poor developmental performance of sub-national governments in mining regions.

Figure 1.1 Relationship between social conflict and poor developmental performance in mining regions: two competing conceptual overviews



Some key terms

In some chapters my analysis becomes technical. This is mainly where I deal with large quantitative data sets and undertake econometric analysis. I do my best to explain the technical issues clearly and have chosen to relegate the more complex tables and explanations to annexes and footnotes. In this thesis I use frequently three terms: conflict, rent and sub-national government. Although they are not especially technical terms, I use them with particular meanings.

In ordinary language the meaning of 'conflict' is very wide. The term refers to highly dissimilar realities, from wars with thousands of casualties to personal psychological processes. I am in general talking of a middle ground: social conflicts that involve confrontation and dispute, but may or may not involve violence. I have started with an official data base on social conflict compiled by the Peruvian Ombudsman (Defensoría del Pueblo, 2009), and have thus accepted the official definition of what constitutes a social conflict. Since 2004 the Ombudsman has reported monthly on incidents in which a group of protesters resorted to at least one of the following practices: (i) threats to the integrity of life or health; (ii) damage to private or public property; (iii) obstruction to freedom of movement; (iv) impediment of the exercise of public authority; and (v) obstruction of public service delivery (Defensoría del Pueblo, 2009). Violent demonstrations, roadblocks and assaults on premises, buildings and land are the most frequently reported events. These activities tend to involve peasant and indigenous communities, and the inhabitants of small urban settlements in remote areas of the country (Chapter 5). Despite the diverse nature of their demands, they always ask for some official level of involvement in seeking a solution. These type of conflicts conform to the definition of contentious politics (McAdam, Tarrow, & Tilly, 2001:5) as '...episodic, public collective interaction among makers of claims and their objects when (i) at least one government is a claimant, an object of claims, or a party to the claims and (ii) the claims would, if realized, affect the interests of at least one of the claimants.'

Rent or 'economic rent' is a second concept central to my argument. I use it in its economic meaning as the difference between (i) the price obtained from using a factor of production in the market and, (ii) the price needed to persuade the entrepreneur to use that factor rather than simply hoard it. For example, a taxi driver in a remote small town in the mountains, far from cities and good roads

normally charges one dollar per km for out-of-town trips. However, there is a major natural disaster not far away and vast numbers of aid workers, journalists etc all want to hire the taxi at almost any price. The taxi driver can now charge 10 dollars per kilometre although he would be willing in principle to drive for one dollar per km, but following this artificially inflated market charges 10 dollars, hence his economic rent is 9 dollars per km.

A similar logic applies to the income of mining companies and the effect of the increase in international mineral prices. An example is Antamina, a large mine that I analyse at various points in this thesis. In 1998, a feasibility study estimated that at international copper prices of 0.90 USD/lb, Antamina would yield a rate of return of 14 per cent for the capital invested in the construction of the mine.⁷ Antamina's parent companies and the banks financing the operation considered that it was a good enough return to take the risk. However, during the period 2006-2008, the average international price of copper was 3.2 USD/lb (Ministerio de Energía y Minas, 2010c). As a result, more than 70 per cent of Antamina's income from the sale of copper during that period was economic rent. In addition to Antamina, the dramatic increase in international mineral prices in the period 2004-2008 multiplied the size of mining rents in general.⁸

The distribution of economic rents is highly political. Rents are an economic surplus that is not necessary for the profitable survival of enterprises. Thus, they often attract the interest of people who can use political power to extract that rent. Take the taxi example above. Seeing how much money the taxi drivers are making, a local criminal gang might move in and establish a protection racket, allowing only taxis that pay protection money to continue to operate. If they immediately establish

⁷ Presentation of Mr. Augusto Baertl to the parliamentary commission on mining and energy (29 September 1998).

⁸ Four types of factor determine the size of rents in the mining sector. First, there are the geological and geographical conditions that influence the cost of extraction: the size, the metallurgical composition, and the location of the deposit are all important features. Second, the initial capital investment and the technology used in the construction of the mine also affect the cost of production – usually, the larger the scale the lower the production cost. This means big international mining companies with large financial capacity tend to construct and operate more cost-effective mines. Public policy is the third factor influencing the size of the surplus. Government influences both the production costs and the companies' perception of what a reasonable level of profit is. The regulation of prices of key inputs, such as energy, and the provision of transport infrastructure are among the factors influencing production costs. Regarding the calculation of a reasonable profit, investors reward political and regulatory stability by demanding a low risk premium which, consequently, increases the surplus (Eggert, 2001:47). Finally, the international price of minerals determines company profits.

their undisputed authority, this gang might ‘persuade’ the taxi drivers to hand over most of their 9 dollars per kilometre rent. Much as they might resent it, the taxi drivers would still be running an economically viable business. In such cases, the distribution of rents is determined not by the operation of competitive markets, but by power and force. Large rents motivate people to engage in political action to obtain a share. To extend the example further, the taxi drivers’ union, the local police force and local political leaders may all compete with the criminal gang to get a share of the taxi hire rents. In the case of mining activity, mining companies, unionised miners, different levels of government and local communities all seek to capture a larger share of the rent (Eggert, 2001:47). During recent years, access to and control over mining rents has become a big political game not only in ‘developing countries’. In June 2010 the Australian government introduced a Resource Super-Profits Tax to collect 40 per cent of mining profits above a ‘normal’ rate of return. BHP Billiton, Rio Tinto, Xstrata, and other big mining companies furiously opposed the new policy and played an important role in forcing the resignation of the Prime Minister (The Economist, 2010a, 2010b).

In Peru, the national government has allowed mining companies to retain the largest proportion of these rents through fiscal policies based on flat-rate taxes. The government collect 30 per cent of the corporate profit whatever this amount is. However, municipalities and regional governments close to the mines have also benefited substantially through the introduction of revenue-sharing mechanisms.

The third term is sub-national government. Since 2002, there have been three levels of democratically elected territorial government in Peru: (i) the national government; (ii) 25 regional governments that rule over the regions – previously called departments; and, (iii) 1,834 municipal governments. I use ‘sub-national government’ to refer jointly to municipal and regional governments. Accordingly, I will use ‘regions’ and ‘municipalities’ to refer to the territories over which these governments have jurisdiction.⁹

⁹ According to the law, the municipal tier is disaggregated into two different levels: provinces and districts. There are 195 provinces that comprise 1,834 districts. In theory, the provincial governments should coordinate the work of the district governments within their jurisdiction, but this rarely happens because each municipal government receives most of their financial resources directly from the national government. From a functional perspective, provincial governments have become the government of the district where the capital of the province is placed. Thus, in this thesis I use the term municipal government to refer to the 1,834 district municipalities.

I now set out the conceptual foundation of the thesis. After analysing the features of the NEIS and its implementation in Peru, I review the main literature, especially on the resource curse, which constitutes an important background to my analysis.

1.2 The NEIS: making a virtue out of necessity?

I use NEIS to refer to a collection of policies that determine the mandatory distribution of mining, gas and oil revenues between national and sub-national governments and the greater involvement of firms in local development. These policies aimed to counteract the popular hostility towards extractive industries worldwide. However, I am not suggesting that a group of institutions and corporations intentionally came together at a single point in time to propose a precise policy framework. Rather, the NEIS reflects the confluence of a number of political pressures, interests, opportunities and ideas that diverse actors use to promote similar types of policy in different countries. In the following subsections, I analyse how mining companies, governments and international financial institutions have managed these factors and generated the NEIS in order to improve the prospects for a long-term viable mining industry.

1.2.1 Conflicts, 'new mining' and 'going local'

There is nothing new about the link between mining and conflict. However, the causes of disputes around mining and their social and political relevance have changed over time. For centuries, labour was the main productive factor. Exploitative working conditions were the rule of the day and demarcated the predominant types of conflict: labour versus capital.

In the second half of the 20th century, the convergence of two mutually reinforcing factors imposed a change in the productive model of the mining industry and therefore the prevalent type of dispute. First, the emergence of trade unions with the subsequent expansion of workers' consciousness of their rights and second, the formulation of national and international regulations for labour standards increased company overheads. The combination of these two factors along with the long-term decline in metal prices made traditional mining unprofitable (Sullivan, Sznoppek, & Wagner, 2001). A revolutionary change in technology and scale was the way out of this troubled situation. Intensive mechanisation gave birth to a modern mining industry able to operate with a much smaller workforce to obtain

much larger quantities of minerals. This transformation in turn affected the nature of the conflicts surrounding mining. Larger open pit mines required more land and water. They generated mountains of potentially lethal tailings that polluted streams and rivers. Thus, modern mining employed fewer local workers but, in contrast, its activities affected the lives far more ordinary people than before. The result was that conflicts between large and powerful companies and local communities came to the fore in this new era.

This is demonstrated by the case of the Bougainville rebellion, which led to the forced closure of the Panguna mine in Papua New Guinea – the then largest copper mine in the world – (Filer, 1990), and the evidence of a mining induced environmental disaster at the Ok Tedi mine in the same island group. These two episodes shook the foundations of the mining industry (Filer & Macintyre, 2006). Under pressure from civil society activists in their home countries, mining companies grew increasingly concerned about the impact of their operations on people living in the extraction areas and the potential for a backlash unless they could demonstrate more convincingly that these people also benefited (Ballard & Banks, 2003). The world's largest mining companies thus felt that they were losing the battle for legitimacy and facing the risk of stricter, externally imposed regulations that could harm their long term interests (Szablowski, 2007:77).

In the mid-1990s, the industry started to tackle the problem through the promotion of self-regulation. It adopted the discourse of benevolent 'new mining' as opposed to the irresponsible 'old mining'. The 'new mining' industry would be considerate towards local people, environmentally responsible and promote local development as one of its main objectives. This shift was powerful, as mining switched from being the villain to being the hero: the new mining was going to solve the evils that the old mining had caused.

Both the mining industry and the World Bank undertook internal reviews and commissioned research (McMahon & Remy, 2001). In 1999, nine of the largest mining companies launched the Global Mining Initiative (GMI); and the following year, they inaugurated the Mining, Minerals and Sustainable Development (MMSD) project, which heralded the way forward for the sector. The results were crucial in the light of the past social and environmental behaviour of the mining companies (IIED, 2002) and led to an agenda for the complete overhaul of the sector. At the

same time, the World Bank was facing mounting criticism of its financial support for extraction activities. The bank also undertook a complete revision of its policies for the industry and promoted the scrupulous observance of human rights, sustainable development and poverty reduction (Weber-Fahr, 2002; World Bank, 2003).

The result is that ‘promoting local development’ has become the leitmotif of the mining industry worldwide (IIED, 2002:198-229; 2003). Mining companies and international institutions have pursued a double strategy. First, they have proposed revenue-sharing mechanisms that privilege the producing localities (IIED, 2002:209-212; UNCTAD, 2007:89-90). In recent years, the governments of Bolivia, Brazil, Colombia, the Democratic Republic of the Congo, Indonesia, Kazakhstan, Madagascar, Nigeria, the Philippines, Russia and South Africa have all reallocated oil and mining revenue to sub-national levels of government (E. Ahmad & Mottu, 2003; Brosio, 2003; Morgandi, 2008). Corporate social responsibility (CSR) is the second component of this corporate strategy. Mining companies have enthusiastically embraced the cause of CSR to show that they are now ready to operate for the good of local populations, overcoming their disgraceful past records (ICMM, 2006d; IFC, 2000; IIED, 2003; Yakovleva, 2005). Mining companies generally enjoy tax exemptions in exchange for the expansion of their CSR activities.

1.2.2 The legitimising logic: radical polycentrism

The implementation of the NEIS requires the collaboration of governments in order to reform public policies. However, companies do not normally need to negotiate these policies directly with governments as part of a sector-specific agenda. The NEIS fits perfectly within the fashionable agenda of good governance and with the need of governments to respond to the worldwide emergence of a new political *ethos* demanding greater local control over natural resources (Larson, 2004; Ribot, 2004).

Since the early 1990s until very recently, a set of political ideas, labelled ‘radical polycentrism’ by Houtzager (2003:4-7), have strongly influenced opinions about how polities should be structured. The main feature of this ideological standpoint is a deep suspicion of large-scale, authoritative political institutions, especially the centralised state. The response has been consistent attempts to disperse power

towards the sub-national levels of government, the public, and to non-governmental organisations (NGOs) of all kinds, whether commercial or not-for-profit. This set of ideas appeals both to ideological supporters of market competition and private enterprise (neo-liberals) who wish to minimise the role of the state, and to enthusiasts of decentralisation, empowerment of the people, and radical participatory democratisation who aspire to the attainment of a space for greater social engagement (Houtzager, 2003:7).

Moreover, as I will reveal later in this chapter, in most interpretations of the politics behind the resource curse, the core problem is that resource revenues empower the central state apparatus. Therefore, it seems to follow that a combination of devolution of decision-making to the sub-national governments and the populations of the areas from which natural resource revenues originate, together with the involvement of companies and civil society organisations in decision-making should counter the adverse effects of the centralised appropriation of resource rents. The latter includes rent-taking at central level, lack of downward accountability, secrecy over the use of public finances, and the limited capability of the central bureaucratic apparatus to reach remote areas of developing countries (IIED, 2002).

Thus, the mining companies have gained the support of a collection of disparate and, at times, unexpected allies in fostering the policies that constitute the NEIS. Local authorities of different types; local populations around mines and oil wells; civil society organisations; technocrats in the official apparatus; regional movements seeking greater autonomy from the centre; and international institutions advising on improved governance have all supported the same vague policies, regardless of the fact that they might have different standpoints and motives.¹⁰ The next section examines how the NEIS has been implemented in Peru.

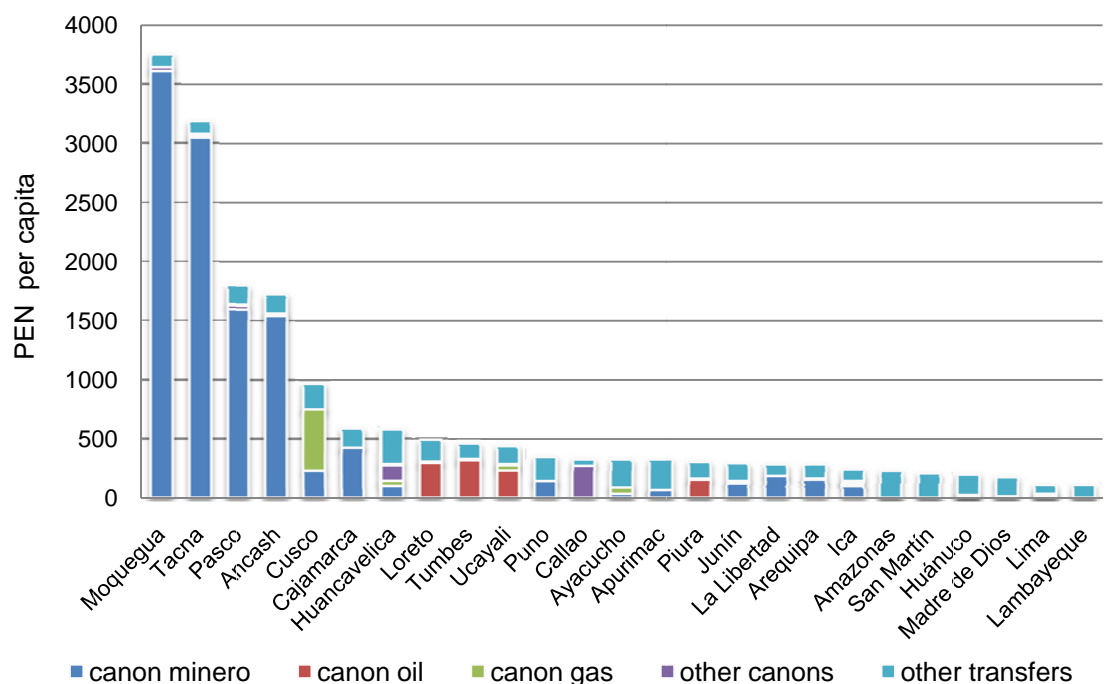
1.3 The Peruvian version of the NEIS

Since 2002, 50 per cent of the profit taxes paid by mining companies to the national government have been transferred to sub-national governments, mainly to those of the regions and municipalities where the mines are located. These

¹⁰ In Latin America, these policies have been challenged by the ‘heterodox’ left-wing governments of Venezuela, Bolivia and Ecuador, which have tended to recentralise the management of oil and gas revenues, with varying success.

intergovernmental transfers are called '*canon minero*'.¹¹ During the period 2004-2008 these *canon* transfers were so substantial and so unevenly distributed they transformed the Peruvian fiscal landscape. While the average per capita budget of Peruvian municipalities was Peruvian *nuevos soles* (PEN) 406 (USD 127),¹² in 2007, the main municipalities around the Antamina mine in Ancash received an average *canon minero* transfer of PEN 9,287 (USD 2,911), rocketing to PEN 15,123 (USD 4,741) for the municipality of San Marcos, the district hosting the mine. In the same year, two-thirds of total *canon minero* transfers and 52 per cent of all fiscal transfers from the central government to sub-national governments were made to 6 out of the total 25 regions – Ancash, Tacna, Cusco, Cajamarca, Moquegua and Pasco –. These regions account for just 16 per cent of the total population (Figure 1.2).

Figure 1.2 Per capita fiscal transfers to sub-national governments in Peruvian Nuevos Soles (2007)



Source: Ministerio de Economía y Finanzas - Perú, 2009
Graphic representation: the author

¹¹ In Peruvian Spanish, *canon* has come to mean 'a rule for the devolution to sub-national governments of revenue collected by central government'.

¹² The average exchange rate for 2007 was 3.19 PEN to the USD (Ministerio de Economía y Finanzas - Perú, 2010).

The changes in the rules for the distribution of these *canon minero* transfers are one of the two institutional innovations of the Peruvian version of the NEIS. The second, known as the Mining Programme of Solidarity with the People (MPSP), fosters greater involvement of the mining companies in the promotion of local development in exchange for the national government's undertaking not to introduce a windfall tax. These two innovations were used to respond to existing local pressure and to convince the population of the benefits of mining.¹³

1.3.1 *The canon minero*

The introduction of the *canon* to compensate for the extraction of natural resources can be traced back to 1976. The discovery of important oil fields in the Amazonian region of Loreto prompted social mobilisation demanding that a portion of the oil revenue be directly transferred to regional institutions. The central government decided to give 10 per cent of the value of the regional oil production to Loreto, labelling this revenue transfer '*canon oil*'. In 1992, in line with the new General Mining Law designed to attract foreign investment in the sector,¹⁴ the government introduced the concept of the *canon minero*, allocating 20 per cent of the profit tax paid by mining companies to the territory in which the profits were generated.

In 2001, the legislature approved the *canon* law – Law N° 27506 – that extended these policies beyond oil and mining to other extraction industries and increased the *canon minero* from 20 per cent to 50 per cent of the taxes paid by the companies.¹⁵ Two factors influenced this reform. On the one hand, this policy fitted perfectly into the decentralisation process prompted by the fall of the Fujimori regime and the subsequent reinstallation of democracy in 2001. On the other hand,

¹³ The creation of trusts (*fideicomisos*) from the proceeds of the sale of state-owned mineral deposits to private firms is a third mechanism following the same logic. The most important trusts are in Las Bambas (Huancavelica – USD 59 millions – Xstrata), Michiquillay (Cajamarca – USD 201 millions – Anglo American), and La Granja (Cajamarca – USD 11 millions – Rio Tinto). The state and the mining companies agreed to use 50 per cent of the money paid to the state by the companies to create trusts. The companies assume an important role in the management of the trusts that should spend their funds on the promotion of local development. The idea is to gain popular support during the initial phases of the presence of the companies. In this thesis I do not analyse the influence of these trusts because the majority of them had little activity during the period of my study.

¹⁴ The new law simplified the fiscal regime for mining companies, eliminated differences between national and foreign capitals, conferred the government with the power to sign fiscal stability agreements with the companies, and removed restrictive foreign exchange rate policies.

¹⁵ In practice the *canon* was restricted to 50 per cent of the corporation tax.

the recent conflicts at Tambogrande (Piura), Cerro Quilish (Cajamarca) and Quellaveco (Moquegua), in which local populations successfully opposed new mining operations, jeopardised the hitherto good prospects for the revitalisation of the mining sector.

The new law had a basic design flaw because the formula for the distribution of revenues did not give enough weight to proximity to the mine. Thus, the main towns of the mining regions ended up receiving more resources than the rural municipalities closest to the mines (Zavalla, 2004). Additionally, the government was unhappy with the ambiguity of the law regarding the calculation of the total amount of revenue to be distributed. Article nº 9 of the law seemed to imply that tax exemptions granted to mining companies should not be deducted from *canon* transfers. Thus, the central government worried that a strict interpretation of the law opened the door to demands from regional and municipal governments for additional transfers. Immediately following the introduction of the new law, the government and parliamentarians in the mining regions started to draft amendments. From November 2001 to the first quarter of 2003, they submitted more than 20 reform proposals that according to their objectives can be grouped into three different categories.¹⁶

First, the government proposals intended to make it clear that only the mining companies' actual payments under their official contract to the state were to be taken into account in the calculation of the *canon*. Second, taking an opposing stance, a sector of the legislature representing the mining regions asked for all the resources that the state would have received if Fujimori's government had not signed legal stability contracts with the mining companies locking in the favourable tax status granted to them during his administration to be included in the *canon*.¹⁷ These proposals called into question the legitimacy of the mining agreements signed during the Fujimori regime and demanded their repeal. Finally, representatives of the mining regions demanded a modification to the rules for the

¹⁶ A summary of the proposals can be found in the parliamentary report that the Energy and Mining Commission submitted to the Plenary of the Parliament for a debate on the amendments (Congreso de la República - Perú, 2003b).

¹⁷ MPs from Cajamarca, Ancash, Pasco, Cusco, Moquegua, Huancavelica, La Libertad and Piura were especially active in their submission of proposals and in voicing their opinions during parliamentary debate.

distribution of the *canon* in order to benefit the municipalities closest to the mines, thus overcoming the flaw in the previous law.

The proposals were put before Parliament in August 2003. The debate did not follow ideological lines but loyalty to regional constituencies.¹⁸ In the context of a weak party system, parliamentarians from mining regions saw an opportunity to gain popular support. Thus, they demanded an increase in transfers and a fairer distribution of them (Congreso de la República - Perú, 2003a).

After five sessions, parliamentarians from the mining regions gave up their demands for the revision of the legal stability contracts and focused the debate on the criteria for the distribution of the *canon minero*. This change signalled an agreement between the government and these parliamentarians: the executive would endorse any reform approved by parliament in exchange for their renunciation of modifications related to fiscal stability contracts.¹⁹ Finally, parliament approved a twofold reform.²⁰ First, it agreed on a new set of criteria for the distribution of the *canon* to the jurisdictions in which the mineral was extracted. Second, the new law deleted a paragraph in the previous version that could be understood as the central government's obligation to include in the calculation of the *canon* transfers the full amount that the state would have received if the stability agreements had not existed.²¹

The government and the mining companies were both satisfied with the new law: firstly, the amendment did not question the tax regime and secondly, they anticipated that additional revenue would now be allocated to those municipalities close to mining operations, thus calming the growing social unrest (Zavalla, 2004:162).

¹⁸ Personal interviews with Eduardo Carhuaricra (2008-024; Lima, 17-04-2008) and Ernesto Herrera (2008-151; Lima, 08-08-2008), who at the time were Members of Parliament (MP) representing Pasco and Moquegua respectively.

¹⁹ Personal Interview with Javier Diez Canseco (2007-009, Lima, 12-06-2007)

²⁰ Law N° 28077

²¹ Only two MPs voted against the approval of the new law, although they did so for quite different reasons. Javier Diez Canseco of the Socialist Party opposed it because it did not address the tax privileges of the mining companies. Juan Valdivia Romero (Minister of Energy and Mines from July 2006 to October 2008) of the APRA (American Popular Revolutionary Alliance) voted contrary to the opinion of his party colleagues because he wanted the law to be more explicitly restrictive about the type of taxes that could be taken into account in calculating the *canon*.

However, assigning resources to different sub-national governments without a preliminary technical study resulted in an unexpected absurdity when, in 2004, some municipalities hosting the operations received lower per capita transfers than their neighbours. Consequently, another round of reform proposals flooded Parliament, demanding greater prioritisation for the producing municipalities in the distribution of resources (Congreso de la República - Perú, 2004b). The resulting new law (Nº 28,332) was unanimously approved in July 2004 (Congreso de la República - Perú, 2004a). Table 2.1 summarises the successive changes in the rules for distribution of the *canon* transfers.

Table 1.1 Changes in the criteria for the distribution of the *canon*.^a

Law Nº 25,506 (Approved in 2001)		Law Nº 25,007 (Approved in 2003)		Law Nº 28,332 (Approved in 2004)	
Beneficiary	%	Beneficiary	%	Beneficiary	%
Regional government.	20	Regional government plus 5% for public universities of the region.	25	Regional government plus 5% for public universities of the region.	25
Municipalities of the province ^b in which the resource is extracted.	20	Municipality of the district in which the resource is extracted.	10	Municipality of the district in which the resource is extracted.	10
		Municipalities of the province in which the resource is extracted, excluding the district of the mine	25	Municipalities of the province in which the resource is extracted.	25
Municipalities of the region in which the resource is extracted.	60	Municipalities of the region in which the resource is extracted.	40	Municipalities of the region in which the resource is extracted.	40

^a With the exception of oil

^b For an explanation of the relationship between provinces and districts see footnote nº 9.

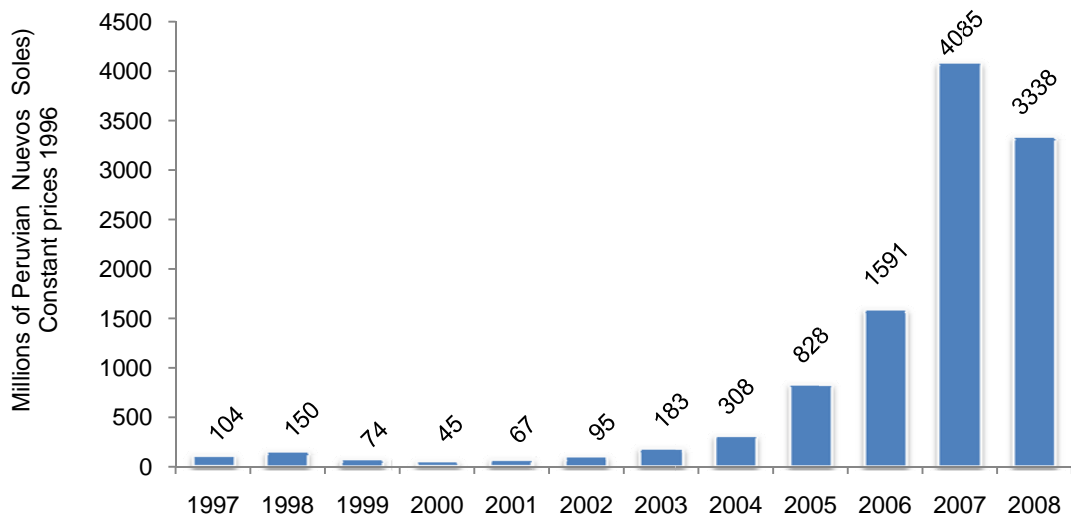
In addition to these changes in the *canon* law, in December 2004, the President issued a decree regulating the payment and distribution of mining royalties for new mines.²² It represented a change in the previous policy because the fiscal stability contracts had exempted mining operations starting between 1992 and 2004 from the payment of royalties. The decree stated that all the royalties should be

²²Supreme Decree Nº 157-2004-EF. Royalties are usage-based payments that compensate the state for the extraction of its mineral assets. In the Peruvian case, payments range from 1 per cent to 3 per cent of the market value of the mineral extracted, depending on the total value of the mine sales.

distributed to the sub-national governments according to strong pattern of concentration in the producer municipality.²³

In 2004, when this new legislation was drawn up, total *canon minero* and royalty transfers amounted to PEN 308 million at constant prices of 1996 (USD 90 million). The subsequent rise in world mineral prices meant that the transfers increased 13-fold in real terms in 3 years (Figure 2.2). Due to the changes in the legislation, this escalation was highly concentrated in a few regions.

Figure 1.3 *Canon minero* and royalty^a transfers to sub-national governments (1997–2008)



^a Refer to royalties in footnote n° 22
Source: (Ministerio de Economía y Finanzas - Perú, 2009)
Graphic representation: the author

1.3.2 *The Mining Programme of Solidarity with the People (MPSP)*

The MPSP is the second main feature of the Peruvian version of the NEIS. Ahead of the 2006 presidential elections, in the face of a steady increase in international mineral prices, various actors argued against a revision of the fiscal stability agreements signed with the mining companies by Fujimori. The introduction of a windfall tax and the payment of royalties by the mines that were built between

²³ Formula for the distribution of mining royalties: 20 per cent to the district municipality in which the resource is extracted (in theory 50 per cent of this should go to affected peasant communities); 20 per cent to the municipalities of the province in which the resource is extracted; 40 per cent to the municipalities of the region in which the resource is extracted; 15 per cent to the regional government; and finally, 5 per cent to the public universities of the region.

1992 and 2004 were the most common and popular demands. The successful presidential candidate, Alan Garcia, adopted these concerns as part of his electoral platform. However, as soon as he took office, he backed down and acquiesced to the mining companies, stating that some palliative measures would be implemented instead of the payment of royalties or windfall taxes.

In December 2006, Garcia published the MPSP, popularly christened the ‘mining alms’. It was an agreement between the government and the mining companies that exempted the companies from paying windfall taxes in exchange for a commitment to invest a predetermined amount of money in social development projects in the mining regions for the following five years. Private trusts under company control were to be responsible for the allocation of these resources according to a loose set of rules. This agreement fuelled popular discontent and criticism because it indicated the clear subordination of the government to mining interests.²⁴

The president of the powerful NSMOE was exultant because the agreement killed two birds with one stone: the companies avoided paying higher taxes and could also use some of the savings to boost their investment in development at local level. Another leader of the mining industry declared that the “companies were passing from being defensive regarding environmental conflicts to becoming proactive in the development of communities”.²⁵

Both mechanisms, the *canon minero* and the MPSP, affect the distribution of mining rents. While the *canon minero* allocates a proportion of the rent to the sub-national governments closest to the mines generating it, the introduction of the MPSP allows the companies to retain most of the economic surplus produced by the boom in mineral prices. This thesis claims that this distribution of rents is responsible for both the increase in conflicts and the ineffective way in which the money is spent at local level. Before I analyse the impact of the implementation of the NEIS, I review what the academic literature says about the relationship between extractive industries, conflict and development.

²⁴ Amazingly, Alan Garcia was more of a royalist than the King in supporting companies’ interests. In a personal interview (2008-199; Lima, 16-09-2008), the president of the NSMOE confirmed that although the companies would have opposed the introduction of new royalties because they were not tied to profit, they were ready to discuss a reasonable windfall tax.

²⁵ Personal interview with Raúl Benavides (2007-005; Lima, 11-06-2007).

1.4 The current debate on extractive industries, conflict and development

The NEIS was a practical response to the growing social unrest generated by the large-scale extraction of oil and minerals. While companies and governments were developing the NEIS, social scientists were more interested in these issues and developed an argument now generally labelled the ‘resource curse’. It refers to a collection of different observable negative outcomes that a country highly dependent on the exploitation of its natural resources may experience. So-called ‘point source’ (geographically concentrated) natural resources, especially minerals and fuels, correlate more strongly with the generation of economic and social problems than do other kinds of geographically diffuse resources (Isham, Woolcock, Pritchett, & Busby, 2005).

In the 1950s and 1960s, the Latin American structuralism and dependency theory schools were already warning about the dangers of the primary sector-led development due to a long-term decline in the terms of trade and the subordination of the economies of the region to foreign capital (Graulau, 2008:137-149; Ross, 1999:301-302). However, it was still widely argued that natural resource endowment provided comparative advantages that poor countries could use to advance their economic development (Rosser, 2006b:7). Thus, in 1993, when Richard Auty originally coined the term ‘resource curse’ (Auty, 1993), the concept was still considered to be counterintuitive and triggered further research into the topic. Subsequently, four types of potential problems have come to dominate the literature.

The negative impact of the intensive exploitation of minerals and oil deposits on economic growth is the first problem that attracted researchers’ attention (Auty, 1993; Sachs & Warner, 1997; Sala-i-Martin & Subramanian, 2003). Their findings signalled the the existence of the ‘curse’ and provided a general explanation for the paradoxical situation. A boom in investment in extraction industries or increase in international commodity prices generates an inflow of capital that tends to increase exchange rates, create high levels of consumption, soaring public spending and, as a result, inflation. The combination of these factors promotes the imports while hindering the country’s capacity to export and, therefore, the national production of tradable goods.²⁶ Moreover, the concentration of capital investment and skilled manpower in the extraction industries deprives other sectors of scarce resources,

²⁶ This set of negative outcomes has been traditionally labelled ‘Dutch disease’.

weakening the economy still further and increasing dependency on the extractive sector (Shafer, 1994). In turn, this increases vulnerability to external shocks because international commodity prices are traditionally volatile, and a boom today turns into a bust tomorrow. When this happens, private and public spending dries up and the country's economy is ill-equipped to deal with the new situation.

Authoritarianism and lack of state responsiveness to the needs of the population are the second possible manifestation of the resource curse. Ross (2001) argues that oil and mineral wealth impede the democratic process through three different mechanisms:

...a rentier effect, through which governments use low tax rates and high spending to dampen pressures for democracy; a repression effect, by which governments build up their internal security forces to ward off democratic pressures; and a modernization effect, in which the failure of the population to move into industrial and service sector jobs renders them less likely to push for democracy (pp. 356–357).

Moreover, even in formally recognised democracies, dependence on income from natural resources provides the state with autonomy from its citizens, which, in turn, leads to poor responsiveness, corruption and the inappropriate use of state revenue (Karl, 1997; Moore, 2004).

The difficulty of translating mineral riches into the reduction of poverty levels is the third problem (Pegg, 2006b; Ross, 2004b, 2007). To some extent, this is a consequence of the two previous problems. On the one hand, lack of economic growth makes the reduction of poverty levels virtually impossible. Moreover, high inflation rates hit poor people more severely than the rest of the population. On the other hand, the lack of state responsiveness to its citizens tends to reduce public spending in social sectors (Gylfason, 2001; Stijns, 2006). In addition, Ross (2004b:32-35) and Auty (2006) argue that the lack of non-skilled or even semi-skilled jobs in the modern extractive sector and weak linkage with other economic activities are also important factors in the persistence of poverty in mineral-rich countries.

An increase in social unrest is the fourth problem linked to the intensive exploitation of natural resources. Collier and Hoeffler (1998) argue that primary commodity exports are significant determinants of the duration and probability of internal armed conflict. Their subsequent work (P. Collier & Hoeffler, 2004a, 2004b) framed the debate around the question of 'grievance or greed' as the major drivers of civil

strife. Their main contribution was to highlight the notion that the rent generated and the ways in which it can be controlled – rather than pure economic dependence – is an important variable in explaining the association between resources and conflict (P. Collier & Hoeffler, 2005).²⁷

The resource curse hypothesis has not gone uncontested. Some challengers deny the existence of a curse altogether on the basis of a misleading conceptualisation of resource dependence and the subsequent use of inappropriate indicators (Brunnschweiler, 2008; Davis, 1995; Lederman & Maloney, 2006). However, this categorical denial is not common. Most recent studies corroborate the existence of a resource curse, but stress that negative outcomes are probable, not guaranteed. Pre-existing socio-economic conditions, the quality of institutions, and the implementation of appropriate policies all matter. This approach accounts more convincingly for the significant performance variation among natural resource-rich countries, and the existence of what were previously considered to be positive exceptions such as Chile, Botswana, Indonesia and Malaysia (Rosser, 2006a). The work of Sala-i-Martin and Subramanian (2003) points to institutional deterioration as the causal link connecting resource abundance with economic stagnation.

In the ensuing years, different authors came up with more sophisticated explanations of how resource dependency affects economic growth (Auty, 2007; Bosschini, Petterson, & Roine, 2005; Hausmann & Rigobon, 2003; Mehlum, Moene, & Torvik, 2006; Van der Ploeg, 2008) and increases poverty and inequality (Bulte, Damania, & Deacon, 2005; Goderis & Malone, 2008; Ross, 2007) and the likelihood of conflict (Basedau & Lay, 2009; Fearon, 2005; Humphreys, 2005) and authoritarianism (Auty, 2007; Dunning, 2008).

These more nuanced explanations highlight the importance of institutions and governance, opening a window of opportunity for the extraction companies and IFIs to exploit the developmental potential of the sector. After admitting the existence of problems (IIED, 2002), companies quickly focused on the positive side, advertising the benefits that mining could bring to poor countries and communities if some conditions are met (ICMM, 2006b, 2006d; Wise & Shtylla, 2007).

²⁷ However, the exclusive dichotomy ‘greed or grievance’ seems to be too simplistic to grasp the intricate dynamics behind most of the armed conflicts. Studies of Indonesia (Murshed & Tadjoeeddin, 2009) and the Philippines (Holden & Jacobson, 2007) reveal that actually, these two factors are not mutually exclusive but complementary.

The International Council on Mining and Metals (ICMM), which represents the world's largest mining companies, has been especially active in commissioning studies. This corporate literature tends to propose ideal policies that the companies themselves and their host countries should pursue in order to promote development. Strict respect for human rights, building constructive partnerships with authorities and communities, and scaling up CSR activities are the industry's main commitments (ICMM, 2006d, 2009, 2010a). Regarding governance, the ICMM adheres to the World Bank good governance agenda, adding the importance of building technical capacity in municipal and regional governments (ICMM, 2006a:14-19). In addition, the main companies endorsed the Extractive Industries Transparency Initiative (EITI, 2005), agreeing to disclose their payments to the governments implementing the initiative.

In the academic sphere, there has also been an upsurge in research into potential policy solutions for 'escaping' the resource curse. The collections edited by Humphreys (2007) and Khodeli (2009) agree that "domestic institutions make a significant difference: with good governance the exploitation of resources can generate revenues that will foster growth and reduce poverty" (Khodeli, 2009:6). Their recommendations include state capacity building to facilitate negotiations with private companies and enable the management of revenue; sound macroeconomic and fiscal policies; institutional arrangements fostering transparency and anticorruption safeguards; reform of state bureaucracy in order to reinforce efficient service delivery and the setting up of natural resource funds to sterilise revenue windfalls.²⁸

This thesis relates to this rich body of literature on the resource curse in three different ways. First, I complement the existing literature by examining the existence of a sub-national version of the curse. The studies of the resource curse have traditionally focused on national aggregate figures, processes, institutions and policies, paying little attention to local dynamics. However, in the context of the implementation of the NEIS and increasing international emphasis on

²⁸ In recent years, proposals for the direct distribution of state revenue from the exploitation of natural resources to the inhabitants of mining areas also resonate as a radical method of bypassing the problems associated with the appropriation of rent by the state (Birdsall & Subramanian, 2004; Moss & Young, 2009; Sala-i-Martin & Subramanian, 2003; Sandbu, 2006; Segal, 2009).

decentralisation in developing countries, analysis at the sub-national level becomes crucial to the understanding of new problems associated with these new strategies.

Second, I challenge the common assumption that institutional reforms and the pursuit of new policies to deal with the resource curse are largely technical issues that can be resolved by means of following the advice of experts and the implementation of capacity building activities. My research highlights how the outcomes of purely technical proposals are frequently unable to live up to expectations (Bebbington, Hinojosa et al., 2008; Pegg, 2006a) because they do not consider sufficiently the political dimensions of the resource curse (Karl, 1997, 2007). More specifically, these proposals do not take into account how dependence on extraction shapes the nature of the state (Moore, 2004) and the process of institutional reform itself (Stevens & Dietsche, 2008).

Finally, I find that the size of the rent generated by extractive activities is a key factor for a better understanding of the resource curse, whose earliest conceptualisations had already signalled the different problems mineral/oil rents caused (Ross, 1999:312-319). However, lack of consistent data on the size of rents on a cross-national basis has made academics use alternative economic aggregates to test the theory at the macro level.²⁹ Very recently the World Bank's Adjusted Saving Project published a dataset of oil rents that allowed researchers to test directly the influence of oil and mineral rents on the outset of civil wars and political instability (P. Collier & Hoeffler, 2005; De Soysa & Neumayer, 2007; Omgba, 2009). This 'rent-effect' accounts for local differences and highlights the importance of specific conditions in the exploitation of natural resources. These approaches highlight that it is the rent that matters, not just the relative importance of natural resources production and exports (Dunning, 2010; Weyland, 2009). In this thesis I also test this 'rent-effect' and find a convergence between the results in my sub-national research and the more widespread cross-national analyses.

²⁹ Until very recently, a measure of mineral/oil dependency, defined as the proportion of production in relation to GDP as a percentage of total exports or as a combination of both, has been used to examine statistically the effect of natural resource wealth on different social and political outcomes.

1.5 Thesis outline

The next chapter describes the research methodology and presents the field sites. After discussing the research process as a three-dimensional journey through emotions, intellectual challenges, and unfamiliar geographies, the chapter sets out to answer the three key methodological questions: (i) what did I want to know?; (ii) how did I set about finding the answers?; and (iii) how did I select the most appropriate places to undertake field research? It concludes by presenting the three regions where I conducted field research.

Chapter 3 sets the implementation of the NEIS in context by analysing four factors of the Peruvian political economy affecting the rural population: (i) the change in state-citizens relations promoted by the implementation of neoliberal policies after the 1980s, (ii) the uneven distribution of the benefits of the recent economic growth that excludes, to a large extent, the Andean and Amazonian rural populations; (iii) the experience of previous historical cycles of extraction in Peru, their related political dynamics and the repercussions on the population close to the mines; and (iv) the recent emergence of local actors in the countryside who challenge the state's authority.

Chapters 4-6 examine the relationship between social conflict and the implementation of the NEIS in Peruvian mining regions. The overall conclusion is that the NEIS has not only failed to reduce conflict, but in fact has increased the number of disturbances. The three chapters substantiate this claim through a three step analysis. Chapter 4 reviews what different Peruvian actors and the academic literature say about the relationship between mining and social conflict. Chapter 5 presents the results of the quantitative analysis of the factors affecting the variations in the incidence of social conflict across the Peruvian regions. It concludes that there is a clear correlation between the increase in conflict and the amount of *canon minero* transfers received by the sub-national governments of the region. The result is puzzling because previous studies of the topic did not anticipate that these transfers could cause social conflict. Chapter 6 presents the results of my field research on conflict in Pasco, Ancash, and Moquegua regions. The analysis confirms that the level of mining rents is the dominant driver of conflict and provides information about the causal mechanism linking 'money' to social disturbances.

Chapters 7 and 8 deal with the impact of the NEIS on economic and wellbeing indicators. Chapter 7 shows that the implementation of the NEIS has not led to the improvement of economic and wellbeing indicators at regional or municipal level. The econometric analysis helps to distinguish the effect of the NEIS from that of potential spill over effects of mining activity per se. Chapter 8 sets out to respond to the puzzle posed by the results of the previous chapter: how is it possible that in regions and municipalities receiving high volumes of *canon* transfer the living standards of their inhabitants do not improve more than in the rest of the country? First, the chapter presents the results of a quantitative investigation into the expenditure patterns of Peruvian municipalities, showing that *canon*-rich municipalities have a specific, less developmental way of spending money. Second, the chapter provides detailed information from my field research in 18 *canon*-rich municipalities to clarify the local processes that lie behind this pattern of expenditure. It concludes that 'lack of capacity' is usually overstated in official accounts of local governance problems, and proposes an alternative and more plausible explanation for the poor use of public money: the implementation of the NEIS provides incentives for municipal authorities to pursue short-term spending.

Finally, Chapter 9 summarises the main findings regarding the effects of the implementation of the NEIS on social conflict and development in Peruvian mining regions. It also draws some conclusions about the relevance of the Peruvian case to other resource-rich countries that might pursue similar policies.

Chapter 2

The research journey

The process of researching this thesis has been a three-dimensional journey: geographical, intellectual and emotional. From the beginning I was aware that the research would involve extensive travelling in different parts of the country. I also realised quite early on that I should venture into some areas of knowledge and research methodologies that were previously unknown to me. However, I did not expect that this research would also test my personal emotions.

Mining has proved to be a highly controversial topic and I have needed continuously to take stock of my own feelings on the subject. During my field research, I heard accounts of conflicts, suffering and frustration that aroused differing reactions in me. Almost everywhere I met people with strong opinions who demanded my endorsement of their views. The mining companies and the authorities were frequently suspicious of an academic going around in the mining areas. I also faced the scepticism of some of my friends in social movements because they thought that my emphasis on the role of rents (Chapters 5 and 6) as a cause of the conflicts downplayed what they saw as the direct responsibility of mining companies. They, like many others during the research period, asked me to make it clearer whether I was for or against mining.

I had to explain to the people I met, and frequently I had to repeat to myself, that I was not looking for confirmation of any personal conviction about the topic. I did not prejudge whether mining and/or *canon minero* transfers may or may not bring development and prosperity to the Peruvian people, especially those living in the remote areas of the country where many of the mines are located. Indeed, given the natural endowment of the country, I would be delighted if the road from natural resource exploitation to generalised human well-being was smoothly paved. This would provide a better prospect for lot of my friends and many other people I had met in recent years. However, I discovered through my research that such a positive outcome is unlikely. On the contrary, there are clear signs of serious obstacles. Thus, in this thesis, I first try to ascertain the magnitude of these problems and second, I attempt to comprehend the dynamics behind them. I hope

that a better understanding of these forces will help the government, mining companies, and social movements make better informed decisions.

This kind of analytical distance does not imply lack of passion and commitment. The encounters with people in remote parts of the country during the field research encouraged me to be even more rigorous. Some people asked me how my research was going to help them. I tried to be honest and explained to them that it was very unlikely that it could help them in the short term. However, I hoped that my work would make a contribution, even if a very small one, to the improvement of their lives by gaining a better understanding of the processes hindering development in their localities. This hope gave me extra motivation during the research process. It also pushed me to go further geographically and deeper intellectually. The energy to visit one more community when I was already tired, to endure the harshness of high altitude places, and to try some new analytical tools when I already had enough material to write a thesis came, at least partially, from this motivation.

In this chapter I give details of key aspects of my research. First, I describe the research methodology, and then I present the field sites. The section on methodology emphasises the intellectual dimension of the research journey, while the presentation of the field research sites provides geographical information. However, the three dimensions of the journey – geographical, intellectual and emotional – frequently intertwine.

2.1 Thesis methodology

In this section I answer three questions: (i) what did I want to know?; (ii) How did I set about finding the answers?; and (iii) how did I select the most appropriate places to undertake field research?

2.1.1 What did I want to know?

It was almost by chance that I embarked on this study. In December 2006 I travelled to Peru to visit my Awajun friends. On my way to the jungle, I was stopped in the northern town of Jaen by a massive march of peasants protesting against mining exploration in their communities. This awakened my interest. At the end of my journey, back in Lima, I met two friends, an economist and a social activist. I

told them about the demonstration in Jaen. They had different opinions of mining. The economist perceived mining as a great opportunity for the country, while the activist informed me about the potential negative effects of mining on local populations. However, they both agreed that mining would be one of the main issues for the future of the country. I felt attracted to study the topic.

In June 2007 I was back in Peru ready to carry out the first round of field research. Initially, I did not have a clear set of working hypotheses to test. I just wanted to know what was happening at the grass roots. Because I was interested in clashes between the mining companies and local populations, I chose to visit Cajamarca and Espinar, two mining hotspots. In Cajamarca there had been recurrent social conflict between Yanacocha, the largest gold mine in Latin America, and local communities (Lingan, 2008; Tanaka & Meléndez, 2009). In Espinar, a remote locality in Cusco, the Tintaya mine had also been plagued by disturbances, sometimes violent ones. In 2004, the company agreed with the local authorities to finance a fund to promote local development.³⁰ However, the move did not prevent the outburst of new clashes.

I expected to find a coherent story with good and bad guys, environmental damage, abuse of local people by powerful transnational companies, and popular resistance to mining. There was something of all this in both places, but it was not the whole picture. In fact, what was happening there was much more intriguing. Pollution of the environment, growing uncertainty over traditional livelihoods, a widespread sense of dispossession among the locals and other grievances co-existed with a popular acceptance of mining, substantial amounts of *canon minero* flowing to the municipal coffers and the generation of a large number of jobs in public works. My enquiries about the disagreement with mining activities were frequently met with surprise. Most of the people wanted more benefits, not less mining. But clearly, the existing *canon* transfers and corporate sponsored projects did not satisfy people's aspirations.

This preliminary research suggested that the implementation of the New Extractive Industries Strategy (NEIS) had locked sub-national governments, mining companies and local people into complex relationships that were difficult to

³⁰ This agreement is seen as the precursor to the Mining Programme of Solidarity with the People (MPSP).

negotiate and into confrontations that could not easily be resolved (Arellano-Yanguas, 2008). This initial insight helped me to focus my research on the two questions that are at the heart of this thesis:

- (i) Why did social conflict escalate so dramatically in the Peruvian mining regions after the implementation of the NEIS?
- (ii) Is there evidence to suggest that the implementation of NEIS has improved the economic and social wellbeing of people in mining areas?

2.1.2 How did I set about finding the answers?

Answering these questions demanded a multi-method approach to the analyses at both national and sub-national levels (Snyder, 2001). At national level, I reviewed secondary information, examined the parliamentary archives and interviewed relevant actors to get a better understanding of (i) the ways in which the NEIS was designed, and (ii) the political and institutional context affecting its implementation. In the investigation at the sub-national level, I used quantitative techniques to compare the incidence of conflict and differences in economic and welfare indicators between mining and non-mining jurisdictions.

To make this comparison I built two comprehensive datasets. In the first, I assembled statistics from seven different sources for the 25 regions of Peru from 2001 to 2008: (i) the monthly incidence of social conflicts from the Ombudsman's office; (ii) geographical data from National Institute of Computing and Statistics (NICS); (iii) demographics from the national censuses of 1993 and 2007; (iv) electoral participation and results from the National Office of Electoral Processes (NOEP); (v) social and economic indicators from the NICS; (vi) data on mining production and investment from the Ministry of Energy and Mining (MEM); and (vii) data on *canon* transfers to regional and municipal governments from the Ministry of Economy and Finance (MEF).³¹ The second dataset includes data for the 1,834 municipalities in the country collected from five different sources for the same period: (i) geographical data from the NICS; (ii) demographics from the national censuses of 1993 and 2007; (iii) electoral participation and results from the NOEP;

³¹ Budgetary statistics for the regional governments only include data for the period 2004–2008 because they were created in 2003.

(iv) detailed budgetary data from the Ministry MEF; and (v) social indicators from 1993 to 2007 from the national censuses for these years.

I use these data in different ways. In the analysis at the regional level I combine panel data regression techniques and Ordinary Least Square (OLS) regression to elucidate (i) the correlates of the variation in the incidence of disturbances across the Peruvian regions (Chapter 5); and, (ii) the influence of different mining related variables - including *canon* transfers - on the change in economic and welfare indicators (Chapter 7). At municipal level, I used Propensity Score Matching (PSM) analysis to compare differences in changes in welfare indicators between *canon*-rich and *canon*-poor municipalities over the period 1993-2007 (Chapter 7). Second, through panel regression techniques I examined the spending patterns of municipal governments receiving high volumes of *canon minero* transfer in the period 2005-2008 (Chapter 8). I give methodological details of how I conducted these analyses in the relevant chapters.

These quantitative analyses helped me to find plausible explanations for differences across regions and municipalities that, in aggregate, made up the national picture of the results of the NEIS. However, statistical results alone do not provide sufficiently robust causal explanations. Consequently, I undertook detailed fieldwork to explore local politics in regions and municipalities receiving high volumes of *canon minero* transfers. I selected three mining regions – Pasco, Ancash, and Moquegua – in which to focus the field research in order to gain a better understanding of the processes and dynamics that lie behind the quantitative results.

I conducted extensive field research in Pasco, Ancash and Moquegua between April and October of 2008, and between September 2009 and March 2010. I used four different methods of data collection. First, I conducted over 200 semi-structured interviews. In Lima I interviewed 53 people: 15 academics and consultants, 7 politicians, 13 leaders of social movements and members of NGOs; 8 senior government officials; 8 managers of mining companies, and 2 representatives of donor institutions. In the three regions together I interviewed the three regional presidents, 20 mayors, 34 officials in regional and municipal governments, 18 representatives of peasant communities - mainly their presidents and members of the board - 23 local social leaders, including journalists, members

of social movements, and priests; 14 employees of the mining companies; 13 members of NGOs; 7 consultants working for regional and municipal governments; the regional representatives of the Ombudsman and other relevant people including policemen, anticorruption prosecutors, and workers in the public works of the municipalities.

Second, I collected information on management capacity in the 18 municipalities I studied. I followed a consistent strategy in all the municipalities in order to draw meaningful comparisons. First, I phoned the mayors and agreed a date for the personal interviews. In this first phone call I informed them that I would also like to interview the general manager of the municipality. I also asked them for their e-mail addresses to send a reminder of the appointment and a list of the data I would like to collect during my visit. In Chapter 8 I use this information to assess the managerial capacity of the 18 municipalities.

Third, I participated in popular assemblies, negotiation processes between local communities and mining companies, participatory budgeting workshops, and public hearings with mayors and MPs. In a few cases, the meeting had so many participants that my presence went unnoticed. However, most of the time, in small villages and peasant communities, I needed to introduce myself as an academic interested in how they deal with local problems. In all cases I chose a discreet place and remained passive but attentive. Generally, I took notes that I transcribed at the end of the day including, separate contextual information and my own reflections. My participation in these gatherings gave me a wealth of information about local processes that frequently contrasted with what authorities expressed in formal interviews. I also deliberately used public transport to travel within the mining regions to differentiate myself from mining companies' employees. This meant that I had to chase 'group taxis' (*colectivos*) at the crossroads and had to spend many hours waiting either for the arrival of the next taxi or for enough people to fill the car. However, these journeys turned out to provide great opportunities to interact with local people and to get opinions and information to complement those that I got in more formal meetings.

Finally, I collected local newspapers, listened to local radio, and consulted web pages with regional information. With some exceptions, the local media were highly partisan. They supported the interests of those who paid them best. Thus, although

I could not rely on them for accurate information, a comparison of their different approaches offered valuable insights into the local power dynamics.

At the end of the field research I had a wealth of information coming from different – and frequently conflicting – perspectives. I cross-checked the different sources to have a better understanding of the mechanisms behind the escalation of conflicts (Chapter 6), and the processes driving the allocation of mining resources at local level (Chapter 8). In this thesis, I sometimes bring stories and direct quotations from my fieldwork into the discussion. I also have distilled much of this material to summarise different perspectives. When I do this, I use footnotes to link these syntheses with the source material, maintaining anonymity when necessary or required by the interviewees.

It could appear that the qualitative analysis followed the quantitative one in a clear time order. In fact, the research process was far more iterative. I undertook some preliminary quantitative analysis of the data before the field research, and insights from my visits to the mining areas provided me with new information to select new variables and to check different hypotheses. Thus, most of the quantitative analyses that I present in this thesis were carry out after the field research.

2.1.3 Selection of the field research sites

The analysis of sub-national dynamics as a way to understand the wider national picture is the distinctive approach of this thesis. To capture both the fragmentation and interconnection of sub-national politics demanded analyses at two different levels – regional and municipal – in order to address the two questions driving the research.

First, social conflict in Peru frequently involves the interaction of local and regional actors. Although protests may begin in a small municipality, they are usually embedded in wider regional dynamics and build on coalitions with groups outside their municipal jurisdiction. Prolonged disputes demand the attention of regional or national bodies and the mediation of authorities from the outside. This meant regions were the most relevant units for analysing the influence of the NEIS on the incidence of social conflict, though not precluding more detailed analysis of local dynamics.

Second, the impact of the implementation of the NEIS on economic and social wellbeing needs to be addressed at both regional and municipal levels. In Peru, the central government transfers resources directly to each regional and municipal government's bank account. Accordingly, municipal governments bypass the regional government when handling their budgets, resulting in a completely independent management process. Thus, a separate assessment of the performance of these two levels of government is crucial to understand the impact of the NEIS.

Consequently, I was faced with the challenge of combining the two units of analysis – regional and municipal – in such a way that I could examine in the same region processes explaining the incidence of social conflict and the performance of municipal governments. In terms of choosing the regions in which to undertake my research, it was clear that I needed to select them from the six regions receiving the greatest volume of *canon* transfers: Ancash, Cajamarca, Cusco, Moquegua, Pasco and Tacna (Figure 1.2). As part of the selection process, I reviewed the Ombudsperson's report on social conflict (Defensoría del Pueblo, 2009) and found that the six regions had also suffered a high incidence of social conflicts in recent years. Thus, I was left with the task of identifying the three regions that included the highest number of municipalities in receipt of significant *canon minero* transfers. This criterion allowed a consistent sample of municipalities in which *canon transfers* made a clear difference.

In order to better understand the situation, I analysed all 6 regions, identifying the 90 municipalities most affected by major mining operations³², ascertaining their populations and the level of transfer they received. Then, to determine the regions and municipalities most relevant to my research aims, I decided to select regions with the most municipalities that in 2007 met two conditions. First, the population should be over 3,000 inhabitants because municipal performance was more likely to depend on established institutional patterns and procedures than in very small localities.³³ Second, the municipalities should be in receipt of *canon minero* transfers in excess of PEN 1,500 (USD 470) per capita. Ancash, with seven

³² I identified municipalities according to the extent of *canon minero* transfer they received in 2007. These 90 municipalities accounted for 5 per cent of the country's population, and received 46 per cent of the total *canon* transfers made to municipal governments that year.

³³ This criterion implies the omission of municipalities with the highest per capita transfer.

municipalities meeting the selected criteria, Pasco with six, and Moquegua with five seemed to be the appropriate regions.³⁴

2.2 The research sites

The mining sector is extremely important to the economy and society of the Ancash, Moquegua and Pasco regions, but they are sufficiently different to ensure that they constitute a representative sample of the Peruvian mining sector. Table 2.1 shows some of the main features of these regions and a discussion of the general dynamics around mining to which they are subject follows. I present the regions in the order in which I undertook the field research. In addition, the basic features of the mining operations and municipalities included in the fieldwork are tabulated in appendices III and IV.

Table 2.1 Statistics for Pasco, Ancash, and Moquegua

Region	Population ^a	Rural population ^a	Mining as a percentage of regional GDP ^b				Poverty ^c	Poverty evolution 2004–08
			2005	2006	2007	2008		
Pasco	280,449	38 %	59%	64%	74%	61%	64%	-8%
Ancash	1,063,459	36 %	39%	38%	49%	42%	38%	-15%
Moquegua	161,533	15 %	36%	30%	43%	43%	30%	-1%

^a Data for 2007; ^b current prices; ^c data for 2008; source (INEI, 2009c).

³⁴ In my assessment of Ancash, I excluded Huanter from the study because the official figures when I carried out the field research (prior to the dissemination of the 2007 national census) indicated that it had less than 3,000 inhabitants (as opposed to 3,098 revealed by the census published in June 2008). On the other hand, in considering Pasco, I initially incorporated Tlacayan, Paucartambo and Chaupimarca into the study because 2007 per capita *canon minero* transfers seemed to be higher than PEN 1,500. However, adjustments to both *canon minero* transfers and population rates resulted in actual transfers being below this amount. Then, although I conducted field research in these three localities, and in fact used data collected there for the analysis of conflict, I finally excluded them from my enquiry into the municipal dynamics surrounding the spending of the mining revenues.

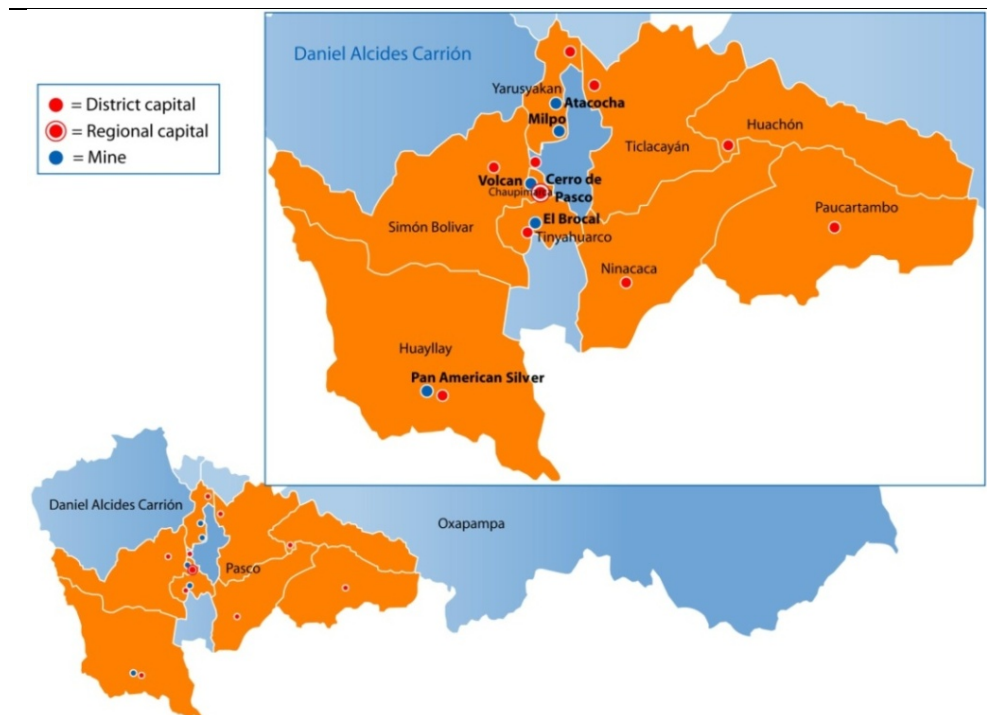
Figure 2.1 The six main Peruvian mining regions (the three regions selected for the study are shaded in orange)



2.2.1 Pasco

Mineral exploitation in Pasco stretches back to colonial times. More recently, the first modern international mining company in Peru located its operations in Pasco and American investors founded the Cerro de Pasco Copper Corporation (CPCC) at the beginning of the 20th century, buying up nationally owned enterprises. As the famous novel *Redoble por Rancas* (Scorza, 1970) vividly portrays, the confrontations of the surrounding peasant communities with this company became legendary, becoming an early symbol of local resistance to international capitalist forces.

Figure 2.2 Field research sites in Pasco



As the century progressed, new investors established another four middle-size operations in Pasco (Atacocha, Milpo, Huarón and Brocal).³⁵ These ventures definitively shaped the economy of the region. Mining dynamism promoted migration and the expansion of the town of Cerro de Pasco around the pitheads of the old tunnels. In 1956, CPCC converted the traditional underground mine into an open pit operation, which had the distinctive feature of being virtually in the middle of the town. Since then, the mine has steadily encroached on the urban area in order to maintain output.³⁶ Despite a long tradition of protest, the population has ended up tolerating this ‘parasitism’ because economic activity linked to mining is the only opportunity for making a living in the self-proclaimed highest city in the world (4,380 metres above sea level).

I spent two and a half months in Pasco between April and June 2008. I was not surprised that organisations opposing mining activities across the country arranged excursions to Cerro de Pasco to show the damage that mining can cause. If the town ever had any kind of beauty, it has definitively been lost. A pit of more than

³⁵ See appendix III for more details of these operations.

³⁶ Google Earth <Cerro the Pasco, Peru> contains photos of old buildings which have disappeared into the mine with their location.

1.5 km² in area and 1 km deep now occupies the centre of the old town. Mountains of tailings, polluted streams, lead dust, and daily explosions in the pit combined with a lack of basic services, the high altitude and the extreme weather conditions make Cerro de Pasco one of the most inhospitable places on earth. During my first days in Cerro de Pasco, a national television station broadcast a documentary on the town with a revealing title: *Cerro de asco* ('disgusting hill')³⁷. The environmental situation in the other mining municipalities was not so tragic, but there are still widespread signs of environmental damage.

After some decades of mineral production decay, in recent years, mining has once again become crucial to the regional economy, rising to above 60 per cent of total GDP during the period 2005–2008 (Table 2.1). This means that in the municipalities in Pasco where the mines are concentrated, mining represents more than 90 per cent of local GDP.

The development record of this long history of mining is not good. The region as a whole remains very poor. According to 2007 figures (INEI, 2009b), some municipalities are numbered among the poorest in the country. Moreover, during the mining boom of 2004–2008, poverty reduction was significantly below the national average (Table 2.1.). People in Pasco could not understand why, if the country had benefited so greatly for so long from the mineral riches of Pasco, they had received so little attention. Moreover, from the perspective of a government wanting to convince the population of rural areas of the benefits of mining, the situation in Cerro de Pasco is not helpful.

As emerged from the previous description, I found research work in Pasco tough. I spent 70 days there but I never got really accustomed to the lack of oxygen, the cold, the pollution, and the black dust penetrating the nose. Despite the caring support of some friends there and the opportunity to enjoy the beauty of some surrounding spots, I felt deeply relieved when I finished the field research in Pasco and could move to Ancash.

³⁷ The documentary is posted at <http://www.youtube.com/watch?gl=ES&hl=es&v=gtVRgs83Ayo>

2.2.2 Ancash

Large-scale mining is a comparatively recent development in Ancash. Antamina and Pierina, the two companies operating in the region, are the epitome of the new mining sector, with modern operations and relatively high social and environmental standards.³⁸ Both mines are situated in the highlands, at over 4,000 metres above sea level (MSL). Antamina, the main company, operates in the most underdeveloped area of the region, the Conchucos Valley, which has about 62,500 inhabitants (INEI, 2008a). The company started production in 2001, after making the largest mining investment in the world in the previous 15 years³⁹. The result is one of the biggest and most profitable mining operations ever undertaken⁴⁰. Annual profits after reinvestment and taxation ranged between USD 1,383 and 1,822 million for the period 2006–2008 (BHP Billinton, 2009:29). This means that with these windfall profits Antamina's parent companies recouped their investment in less than two years. It also generated massive *canon minero* transfers to the region, especially to the districts surrounding the mine in the province of Huari. Moreover, Antamina's social responsibility programme is the most ambitious in the country, and in 2007, amounted to nearly \$USD 67 million for local development.⁴¹ Unsurprisingly, despite the vastness of the region, Antamina has made a significant economic and political impact on Ancash.

However, the poverty level in the region as a whole improved less – 15 percentage points – than the national average from 2004–2008; and in 2007, the districts closest to the mine still appeared in the country's lowest quintile in terms of the human development index, as recorded by the Human Development Report (HDR) 2009 (UNDP, 2010).

The Canadian company Barrick is exploiting the Pierina mine in the district of Jangas, Huaraz province. Pierina started its operations in 1998 and is currently approaching the end of its economic life. Although Pierina is much smaller than Antamina, its proximity to Huaraz, the regional capital, puts the operation at the

³⁸ The main features of the mining companies in the study regions can be found in appendix III.

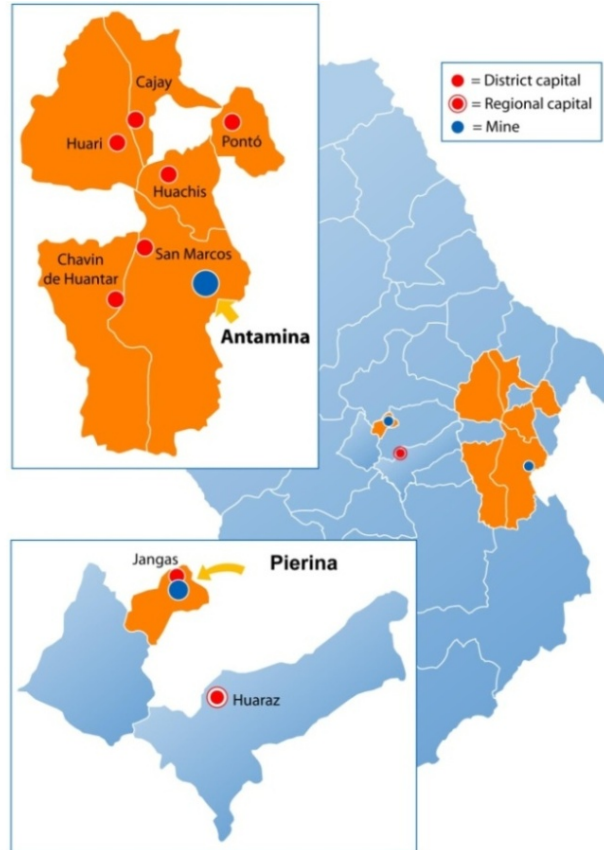
³⁹ USD 2,300 million.

⁴⁰ According to company sources, Antamina is the third largest mine in the world and the fifth most profitable.

⁴¹ Including a USD 64.3 million contribution to the MPSP. Only a proportion of that budget was actually spent in 2007.

centre of public awareness. Figure 2.3 shows the locations of the two mines and districts where I conducted my field research.

Figure 2.3 Field research sites in Ancash



I used San Marcos, the capital of the district hosting Antamina, as my base during the field research in Ancash. From there I travelled to the communities surrounding the mine and to other municipalities. Despite hosting one of the biggest mines in the world and the high volume of *canon minero* transfers accruing to the municipality, public services in San Marcos were poor. Public transport to the smaller districts was scarce and erratic; telephone lines in the rural municipalities were faulty; internet connections in the cyber centres were desperately slow and frequently out of order; and there was neither a fully operational bank branch nor a cash machine within five hours travel. In sharp contrast, Antamina is one of the most technologically advanced mines in the world: a satellite system helps to choose the most efficient route for the gigantic trucks in the pit; the minerals travel directly from the mine to the seaport in Huarney through a 300 km pipeline; and the 4,000 workers who live in the mining camp enjoy facilities and living standards that local people cannot even dream of.

2.2.3 Moquegua

Moquegua has a well-established mining tradition. Since 1976, the Southern Peru Copper Corporation (SPCC) has been exploiting the Cuajone mine, which is currently among the three largest copper operations in the country. In addition to Cuajone, SPCC owns an important cluster comprising the Toquepala mine in the neighbouring region of Tacna, and a copper smelter and refinery in Ilo (Moquegua). As a result, SPCC has greatly influenced the economic, social and political life of this small region. In 1999, Grupo Mexico acquired the majority of the equity from the original North American owners. From 2006–2008, SPCC reported net profits of USD 1,274 million, 1,415 million, and 1,092 million respectively for its Peruvian operations in Moquegua and Tacna (CONASEV, 2010). This considerable revenue meant that a significant amount of *canon minero* flowed to the regional government of Moquegua and to the municipalities around the mine, the average for the latter being approximately PEN 5,000 (USD 1,570) per capita in 2007.

Since 2001, Anglo American has been trying to procure a social licence to exploit Quellaveco, a mineral deposit close to Cuajone. The new mine would double the copper production of the region. After popular rejection of the plan in 2001, in 2008, it looked as though Anglo American had finally got the green light to go ahead with its plans for Quellaveco.

In contrast to other mining regions in the country, Moquegua ranks highly in terms of economic and social indicators, enjoying the second highest level of all 25 Peruvian regions in the human development index. However, figures show that there are significant disparities between lowland and Andean localities (INEI, 2009b, 2009c; UNDP, 2010). The districts of Moquegua⁴², Samegua and Torata rank among the 80 (out of 1,834) most developed in the country, while Carumas and San Cristobal are in the middle to low reaches of the table. Moreover, the region had a dismal record in terms of improving living standards between 2004–2008, when the level of poverty dropped by merely 1 percentage point cent, the lowest rate in the country and in sharp contrast to the national average.

⁴² The district of Moquegua is the capital of Moquegua region, however, it is located in the province of Mariscal Nieto.

Figure 2.4 Field research sites in Moquegua



Moquegua was the last leg of my research journey. First, I visited the town of Ilo to have a better understanding of the innovative process of participatory local governance set up there during the 1980s and 1990s, and the long lasting conflict between the town and the SPCC due to the pollution from its smelter facility. From there I moved to Moquegua, the capital of the region, where I established my centre of operations. Life in Moquegua was much easier than in Ancash and Pasco, at least for a temporary visit. Yet journeys to the Andean districts of the region were physically demanding and revealed the existence of enormous economic and welfare differences between the capital and the rural areas.

After this brief description of regions where I carried out my field research, the next chapter examines the historical, social and political context of life in the Peruvian countryside. It will provide the background necessary to understand the dynamics around the implementation of the NEIS.

Chapter 3

Where the mines are: the socio-political landscape of the Peruvian countryside

The old image of Peru as “a beggar sitting on a bench of gold” is still one of the most frequently quoted diagnoses of the country’s troubles.⁴³ I have heard the same aphorism recounted in government offices and company headquarters, at meetings with members of the political opposition to the ruling party and radical activists, and at peasant community assemblies. In every case, the management of the nation’s natural resources is at the top of the agenda to explain the country’s problems and where to look for remedies. However, though using the same phrase there is no unanimity as to its meaning; different people use the same words to signal very different things.

The economic elite, mining companies, and national government have long considered the mass of the Peruvian population to represent the beggar living on top of vast natural resource wealth who does not have the capacity to take advantage of it. They emphasise the need for entrepreneurial spirit and skills to develop this golden endowment. They argue that the lack of private initiative in the exploitation of the nation’s resources is responsible for the persistence of poverty and related social discontent in the country. Accordingly, they aim to generate better conditions to attract more private investment into the extraction sector. New mining, gas and oil operations could then provide financial resources for the country and bring modernisation, jobs, and much-needed ‘cultural’ improvement to the countryside.

People living in the mining regions have a different interpretation of the situation. For them, the Peruvian government, in collusion with the economic elite, has throughout history condemned local people to penury, cheating them out of the benefits of the fabulous wealth of their homeland. The state and powerful elite living in Lima are seen to have benefited from the export of minerals, leaving local

⁴³ The saying has been common in Peru since the end of the 19th Century. Although traditionally, one Antonio Raimondi, the famous Italian naturalist and traveller who explored the Peruvian regions from 1851 to 1869, is thought to have coined the phrase, recent research points to a more complex social evolution (Alcocer Martínez, 2006).

populations worse off than before the existence of mines. The current levels of *canon minero* transfer represent the bare minimum reparation for these long standing legitimate grievances.

President Garcia has recently introduced a new twist to the elite's old ancestral tale, adding to it a chapter that is more confrontational and unpalatable for a large section of the population. In his newspaper article *El perro del hortelano (the dog in the manger)*⁴⁴ (García Pérez, 2007a), Garcia proposed increased exploitation of natural resources (minerals, oil, gas, timber, water for electricity, extensive industrial crop production in the Amazon, and fisheries) should drive Peruvian economic development. He argued that only big private investors can afford to invest in technology and provide the capital that modern firms require. Consequently, the government should surrender control of the land, water and other resources to them.

At the same time, Garcia portrays the leftist opposition, environmental NGOs, defenders of indigenous rights, local populations resisting extraction activities, and, in general, anyone who opposes his vision of development as dogs in the manger who want to prevent progress in the country. Here is the twist: the beggar who once represented the whole population has been transformed into the dog, no longer a victim of underdevelopment, but an active opponent of development and, therefore, responsible for the backwardness of the country. This discourse has put Garcia at odds with the majority of the population in the rural areas of the Andean and Amazonian regions, who feel themselves both insulted and also threatened with being dispossessed of their most valuable assets. Even those who do not oppose the expansion of the mining sector fear that Garcia's way of thinking will weaken their bargaining position vis-à-vis the mining and oil companies.

Garcia has been more outspoken and tactless than his predecessors, but his policy proposals are not new. Since the end of the reforming military government under Juan Velasco Alvarado in 1975, and most intensively when Alberto Fujimori took power in 1990, Peruvian governments have engaged in market-oriented reforms that eroded the 'corporatist citizenship regime' developed between 1968 and 1975

⁴⁴ A reference to Aesop's fable about a dog that does not allow the cattle to eat hay because it cannot eat hay.

(Yashar, 2005).⁴⁵ This erosion particularly affected the rural population in the Andean and Amazonian regions. The liberalisation of agriculture prices, eradication of agriculture subsidies, elimination of public credit programmes for peasants, and the promotion of free land markets hit the rural population (Yashar, 2005:67-68). The adoption of this neo-liberal agenda transformed the relationship between the state and citizens in rural areas.

During Velasco's regimen the state assumed the role of protector of collective rights and provider of social services. Although these policies did not last very long, they had an important impact on shaping public ideas about citizens' entitlements. People in rural areas of the country learnt that they had the right to enjoy good public services. The subsequent neoliberal change in policies alienated once again the rural population from the state. They perceived that the state had no interest or presence in remote communities except when it needed to impose – frequently by violent means – the interests of the economic elite. The recent government support for mining and oil companies in their confrontations with local populations reinforced this perception.

My aim in this chapter is to set the implementation of the New Extractive Industry Strategy (NEIS) in context by giving a brief historical account of this change in state-citizens relations. It then briefly reviews three aspects of Peru's political economy that have affected the outcome of the NEIS. The first is the uneven distribution of the benefits of the recent economic growth and the widespread lack of trust in public institutions. The second is the experience of previous cycles of extraction in Peru, their related political dynamics repercussions on the populations close to the mines. The third is the emergence of local actors in the countryside as the main challengers to the state's authority. The analysis of these three factors helps an understanding of the outcomes and political dynamics triggered by the implementation of the NEIS.

3.1 Changes in state-citizen relations in the countryside

The relationship between the state and the rural population in the Andean areas has been problematic throughout the history of the Republic of Peru. In 1928,

⁴⁵ For an analysis of the installation and achievements of the corporatist regime of Velasco Alvarado in Peru see Stepan (1978). Collier (1995) offers a comparative perspective of corporatism in Latin America.

Mariategui argued that the persistence of a very unequal pattern of land ownership was responsible for the backwardness of the country and the miserable conditions of the rural population (Mariategui, 2007):

The individualistic character of the Republic's legislation has favoured the absorption of Indian property by the *latifundistas*⁴⁶. The appropriation of most communal and individual Indian property is an accomplished fact. (p. 30)

There are two expressions of feudalism that survive: the *latifundium model* and servitude. Inseparable and of the same substance, their analysis leads us to the conclusion that the servitude oppressing the indigenous race cannot be abolished unless the latifundium is abolished. (p. 40)

These problems remained unresolved for another 30 years. During the 1950's increasing numbers of Andean people migrated to Lima to look for a better life and escape their grim fate.⁴⁷ Massive migration changed the appearance and the social dynamics of the once aristocratic Lima and also contributed to the transformation of the countryside. Migrants in the capital maintained their links with their families in the countryside and helped to diffuse new social, cultural and political customs in the rural areas (Cotler, 1968:241). These changes in rural societies, the peasantry's per capita income stagnation, and the modernisation interests of an incipient bourgeois in the towns of the highland provinces combined to challenge the concentration of land in the hands of a few owners. In the early 1960's Peru experienced one of the largest peasant mobilisations in Latin American history (Stepan, 1978:123). The invasion of land in Pasco, Junín and Cusco constituted the peak of this wave of contention, which preceded the appearance of 'Cuban-style' guerrilla groups in Junín, Cusco and Ayacucho (Bourque & Palmer, 1975; Harding, 1975). The situation demanded reforms but the weak government of Belaunde (1963–1968) was incapable of providing them.

3.1.1 *The revolutionary experiment of Velasco Alvarado (1968–1975)*

The military government of Velasco Alvarado (1968–1975) made a serious attempt to overcome these problems. The Peruvian military knew at first hand the severity of the situation because they had had to deal with insurgency and social protest in

⁴⁶ Owners of large rural states.

⁴⁷ The population of Lima grew from 645,000 in 1950 to 1,847,000 in 1960, and 3,300,000 in 1970.

the *pueblos jóvenes*⁴⁸ and during the peasant uprisings. The army also realised that lack of development was the main threat to national security (Stepan, 1978:127-136). Thus, in contrast to the traditional military coalition with the oligarchy, the new government aimed to transform Peruvian social structure completely.

The 'Peruvian experiment' received as much initial support as it has subsequent criticism. Setting aside the endless argument over its real achievements, both its successes and failures had a significant and long-lasting impact on the transformation of political actors and culture. Velasco Alvarado gave the non-white population – the majority of Peruvians – the opportunity to identify themselves with a president whose nickname, the *chino*, referred to his *cholo* [brown skinned] appearance. Moreover, the revolutionary rhetoric that spoke of forging the 'new Peruvian' through the extension of high quality education brought hope to the rural masses and the urban poor.

The 'revolutionary government' undertook a series of far-reaching economic and social reforms – Peruvian land reform was the most comprehensive in Latin America. By 1979, the *hacienda* tenure system had disappeared. Approximately nine million hectares, which accounted for 60 per cent of total agricultural income, were distributed to 375,000 families, 25 per cent of the total farming population (Eguren, 2006:12; Klarén, 2000:347).

In the economic field, the new regime promoted greater involvement by the state. The diagnosis was that the old provincial elite, or 'gamonales', and foreign companies had been capturing most of the economic surplus without reinvesting it. Thus, the solution was to nationalise the large foreign concerns in the oil and mining sectors and promote an autonomous model of economic development based on import-substituting industrialisation rather than on the export of commodities (Thorp & Bertram, 1978).

The results were mixed.⁴⁹ Land reform did not benefit the poorest peasants who lived outside the confines of the expropriated *haciendas* (Bourque & Palmer, 1975;

⁴⁸ 'New towns': the name given to the shanty towns on the outskirts of Lima to project the idea of a more positive future.

⁴⁹ A comprehensive evaluation of the sectoral policies of the revolution can be found in Lowenthal (1975).

Harding, 1975). Moreover, the rapid growth of the population conflicted with the scarcity of fertile land in the Andes and few opportunities in other economic activities (Sheahan, 1999:172). People continued flowing into the cities, searching for jobs, but the state could not offer them a basic infrastructure or services (D. Collier, 1975). The industrialisation process achieved some initial success in expanding the manufacturing sector, but foreign investment soon dried up and the state had to subsidise private initiatives. The failure to run state-owned companies on profitable lines and the expansion of public expenditure led to an unsustainable fiscal deficit that reached a critical level in 1975, when the international banks curtailed their previously generous lending policies (Thorp & Bertram, 1978).

Furthermore, the inability of the state to meet popular expectations spawned social mobilisation that ran out of control. The government tried to tame these spontaneous movements, launching the National System of Social Mobilisation (SINAMOS), which promoted and managed popular organisations (Stepan, 1978). It also sought to create a social basis for the revolution, eroding the popular support for political parties. However, the attempt to mobilise the populace came too late. Economic problems and social unrest – in combination with Velasco's ill health – led to a change in leadership and a complete revision of policies.

A group of conservative army officers took power in 1975, restoring orthodox economic policies under the supervision of the International Monetary Fund (IMF). Although it was relatively easy to reverse a highly centralised 'top-down' revolution, the new 'counterrevolution' faced mounting popular opposition from an array of groups and social organisations that had blossomed in the shadow of the revolutionary impulse (Klarén, 2000:359-361). This process initiated a very unstable period. Realising that they were unable to steady the polity, the army prepared for the transition to democracy, calling for free elections in 1980.

Despite Velasco's apparent failure, his tenure had important and long-lasting consequences in terms of the advent of new political actors. His government fostered the emergence of hitherto unseen processes, so that new entrepreneurs, middle class professionals, peasant and popular organisations, and labour unions increased their political visibility (Morón & Sanborn, 2006:14-15). In the countryside, the land reform transformed the social landscape and the self-image of the peasantry. The revolutionary government used the term 'peasant' to include

both the *mestizo* and the indigenous population. However, the prescriptive rhetoric echoed the words of the indigenous leader, Túpac Amaru II, who had fought for independence “Peasant, the landlord will eat no more from your poverty” (Klarén, 2000:346).

This combination of discourses and historical figures prompted a threefold process of awareness among the peasants of the Andean provinces of their: (i) indigenous identity - their rights as the original population; (ii) class identity - their rights because they work the land; and, (iii) nationalist identity - their rights as Peruvian citizens. These three aspects of identity were weighted differently according to the group, time or political opportunity.

3.1.2 The restoration of democracy and the internal war (1980-1990)

The restoration of democracy in 1980 did not improve the situation. The two subsequent governments of Belaunde (1980–1985) and Garcia (1985–1990) implemented a mixture of orthodox and populist policies. Their economic strategies were at least partially responsible for the grim legacy of political violence, hyperinflation, fiscal bankruptcy and discredited institutions (Crabtree, 1992; Sheahan, 1999). Public foreign debt increased from USD 6.9 billion (28 per cent of GDP) in 1982 to USD 16.27 billion (69 per cent of GDP) in 1988 (Ministerio de Economía y Finanzas - Perú, 2009). Moreover, GDP per capita fell by 25 per cent between 1980 and 1989; and inflation escalated from an already high 59 per cent in 1980 to 7,482 per cent in 1990 (Banco Central de Reserva del Perú, 2009).

Furthermore, the violence of the Shining Path swept the countryside, causing terror, thousands of victims, and the frequent destruction of the existing forms of political organisation. A combination of three factors generated the conditions for this violent eruption. First, the agrarian reform had put an end to relations and destroyed the political power of landlords, opening new political spaces that the state was unable to fill (Kay, 2001). Second, the distance between the radical discourse of the revolution and its real achievements on the ground nurtured frustration and increased the popularity of more radical discourses (Mallon, 1998). Finally, the retreat of the state from the countryside in the late 1970's gave the Shining Path the opportunity to spread its radical ideology and to build its stronghold in rural areas of the Andes.

The Shining Path used Maoist strategies and took advantage of this political opportunity to challenge the power of the Peruvian state from the countryside. Brutal reprisals from the army often followed the escalating atrocities of the guerrillas. Consequently, the peasantry was caught in the crossfire in wide areas of the sierra, placing an additional and cruel burden on the rural and – frequently – indigenous population. Meanwhile, for almost the entire decade, the economic and political elite in Lima was apparently unaware of what was happening in the countryside. As one of the rural victims reported:

The state still discriminates against the Andean people, considering us second class citizens. Only when the *bombazos* [car bombs] went off in *Tarata*⁵⁰, did the people in Lima realise that something was happening in the country; what was going on before in the countryside was only to do with the *cholos* as far as they were concerned (CVR/Peru, 2004:101).

This testimony illustrates the way in which the rural population in remote areas of the country perceived ‘Lima’, ‘the government’, and ‘the rich’ to be completely indifferent to what was going on in the hinterland.

In the late 1980s, the state was so impotent that political analysts did not rule out a Shining Path takeover of the country, if only in the short-term. The sense of chaos was pervasive. Political parties, politicians and institutions were completely discredited and the population demanded a heavy hand to restore order.

3.1.3 *Fujimori (1990-2001): authoritarianism and neo-liberalism.*

In the presidential elections of 1990, Alberto Fujimori emerged as the country’s saviour. Fujimori, an academic born into a humble family of Japanese immigrants to Peru, appeared as the ‘brand new’ outsider who was able to break the hegemony of the white ruling class (Murakami, 2007:207-218). The people wanted a new style of leadership and Fujimori offered an alternative to the orthodox formula of Vargas Llosa, the neoliberal and ‘white-rich’ candidate.

Fujimori initially gained popular support by making a mockery of the elite-controlled Parliament, judiciary and traditional political parties. He governed the country by

⁵⁰ This testimony from Edilberto Oré (December 2002) refers to the first car bomb in Lima, in Tarata Street, in July 1992. Shining Path’s activities in the capital had started to escalate some years previously, in 1988, when the Central Committee of the Shining Path decided to move the war from its bases in the countryside to the cities (CVR/Peru, 2004:411-417). The sense of real danger reached its peak in 1991–1992, when the government was forced to impose a nightly curfew in Lima.

exploiting his direct rapport with the population and marginalising representative institutions (Crabtree, 2000), instilling in the people a suspicion of politics, politicians and institutions.

In the economic field, reneging on his electoral campaign promises, he implemented an orthodox and drastic neoliberal agenda.⁵¹ The ensuing harsh economic readjustment plan brought soaring prices under control, granting Fujimori further credibility among the sectors of society that had suffered the most from the devastating effects of hyperinflation (Murakami, 2007:258-267).

With the backing of the army and popular support, in 1992 Fujimori dissolved Parliament, reformed the constitution and initiated an austerity programme that promised 'efficient technical solutions' in contrast to the chaos of the policies of previous governments. Moreover, his victory by force over the Shining Path and MRTA⁵² guerrilla groups in the first years of his mandate legitimised and reinforced his authoritarian regime.

Fujimori succeeded in stabilising the economy and led the country to recover its attractiveness as an investment prospect. Accordingly, the privatisation of state-owned utility monopolies and the mining companies promoted foreign investment from 1992, rehabilitating Peru back into the world economy. Since then, Peru has, on average, scored higher than neighbouring countries in capacity to attract foreign capital – an achievement in sharp contrast to Peru's performance over the previous twenty years, when the country consistently ranked below its neighbours (Figure 3.1). As a result, by 1994, the country had resumed its export tradition.

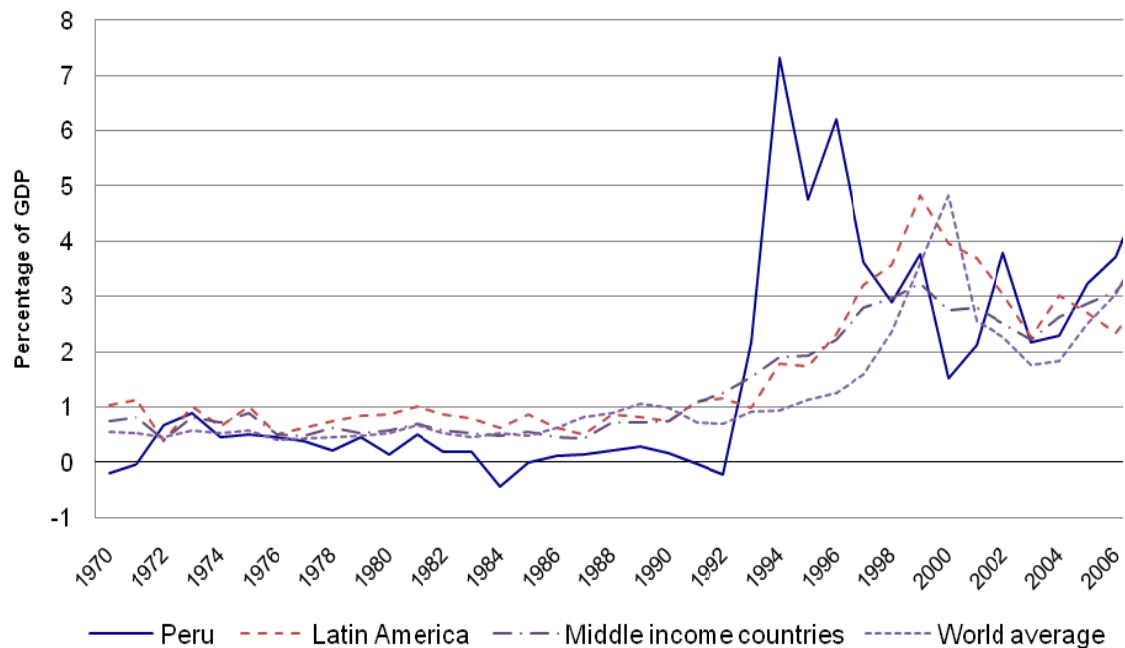
Market liberalisation promoted the greater involvement of foreign capital, which assumed control of key economic sectors (Durand, 2007), limiting local capitalists' room to manoeuvre. However, the traditional alliance between foreign and domestic investment found a new equilibrium. A leaner and fitter elite reinforced its position by brokering relations between foreign interests and local political powers. The desperate attempt of the Peruvian government to demonstrate its commitment

⁵¹ In the introduction to the most recent edition of his best-seller, *The Other Path* (1989), the confessional Peruvian neoliberal Hernando De Soto explains how he personally took Fujimori to the IMF and the World Bank in the first weeks of his tenure to convince him of the benefits of adhering to liberal principles.

⁵² Túpac Amaru Revolutionary Movement.

to orthodox economic policies gave this new business alliance important leverage over the state (Durand, 2005:251-267).⁵³ Fujimori left the management of the economy to neoliberal technocrats, who were endorsed by the IFIs and the business sector, and, in return, his political style gained international legitimacy.

Figure 3.1 Net inflow of foreign direct investment as a percentage of GDP for Peru and other groups of relevant countries, 1970–2007



Source: (World Bank, 2010).

In relation to the rural population, Fujimori combined popular support in marginalised communities with the implementation of radical neoliberal policies that eroded the peasants' collective power (Crabtree, 2000: 174). On the one hand, he centralised social spending in the Ministry of the Presidency using it for electoral purposes (Schady, 1999). He flew frequently to rural areas bringing donations and announcements about the construction of school buildings and other basic local infrastructure. On the other hand, Fujimori liberalised the land market, and eliminated completely public credit facilities to peasants and farmers. In 1995, the Land Law (Law 26505) marked a milestone in this process of liberalisation by allowing the sale of community-held lands to private investors (Yashar, 2005:238).

⁵³ By such means, the National Society of Mining, Oil, and Energy (NSMOE), which brought the principal extractive industry companies together, emerged as the main representative of the business sector (Durand, 2005:212).

The abrupt end of Fujimori's third term of office – prompted by the disclosure of evidence of widespread corruption at the top levels of his regime – demanded the thorough reformation of the Peruvian political system. From a social perspective, the persistence of endemic poverty generated growing unrest that threatened political stability (Schuldt, 2004). In the political field, different actors challenged authoritarianism and the reinforced centralisation of the state. The provisional government of Valentín Paniagua (2000–2001) and the subsequently elected president, Alejandro Toledo (2001–2006), undertook the task of implementing the reforms.

3.1.4 The new democratic era (2001–2008): political reform straitjacketed by an untouchable economic model.

Innovations in the immediate post-Fujimori period were asymmetric. The main political forces simply agreed to the reformation of the political system without any revision of economic policy. The international institutions supported this dual approach to safeguarding the recovery of economic growth. Their stance was in line with the second generation of structural reform of the state that the IFIs advocated in the late 1990s in order to sustain the achievements of neoliberal economic adjustment in that decade (Inter-American Development Bank, 2003). This approach weakened the transformative capacity of the political reforms.

The process of democratisation encompassed a broad reform agenda, fostering decentralisation, direct popular participation and administrative transparency (Remy, 2005:23-31; Tanaka, 2005:42-54). These innovations attempted to respond to the popular demand for a more inclusive polity. In particular, decentralisation was hailed as a sort of political talisman to (i) promote political participation; (ii) generate the incentive to respond to the demands of the public; (iii) solve long-term tensions between Lima and the regions; (iv) foster accountability; (v) reinforce the presence of the state at local level; (vi) distribute public resources more fairly; (vii) improve services for the population; (viii) encourage the economic development of the regions through the coordination of public and private investment; and (ix) drive the modernisation and rationalisation of the state apparatus (Monge, 2006; Polastri & Rojas, 2006; Ugarte, 2006: 24-25; UNDP, 2006).⁵⁴

⁵⁴ The demand for political and administrative decentralisation goes back to the nineteenth century. During the last years of the first government of Alan Garcia, there was an attempt to

With such high expectations, Parliament reached a consensus on some key basic reforms and called for new presidential and parliamentary elections by 2001. The change from a single national electoral constituency to 25 regional constituencies was the first decentralisation policy that triggered later reforms. In the resulting parliament, 85 out of 120 members were *provincianos*, representatives of the regions (Pease, 2006:87). Between 20th July 2002 and 9th July 2004, the new legislature approved 11 laws directly related to decentralisation, laying the normative foundations of this reform process (Zas Friz Burga, 2005:29-30).

Originally, the national parties thought that decentralisation would help them develop power bases in the regions. However, right from the beginning, the disparity between national and local politics was patent. In the first regional elections, Alejandro Toledo's party won control of only 1 out of 25 new regional governments; the main opposition party, the American Popular Revolutionary Alliance (APRA), gained 12. However, by the time of the next regional election in November 2006, when the APRA leader, Alan Garcia, was president of the Republic, his party gained control of only two regional governments. An array of regional movements with no connection to any of the national political groups dominated the ballot. The failure of national parties to gain popular support in the regions slowed down the decentralisation process and, more importantly, shaped the form it would later take. The central government reinforced its control over the process, predetermining the function of the new governments through increasing the number of centrally imposed norms and regulations (Revesz, 2009a:39-40).

In the economic realm, the new democratic governments did not tamper with inherited economic policies, tending to reinforce existing patterns. The governments of Toledo and Garcia repeatedly appointed technocrats to manage the Ministry of Economy and Finance (MEF) and the Central Reserve Bank. Most Economic ministers during the period 2001–2008 belonged to an exclusive club of highly qualified professionals who had previously worked for the World Bank, the IMF or various international companies.⁵⁵ They constituted a nucleus that

promote decentralisation as the answer to the persistence of regional pressure groups active in the 1960s and 1970s (Crabtree, 1992:67). However, Fujimori aborted the process at its embryonic stage.

⁵⁵ This was the case with Javier Silva Ruete (2000–2001; 2002–2003); Pedro Pablo Kuczynski (2001–2002; 2004–2005); Luis Carranza (2006–2008; 2009–2010); and Luis Valdivieso (2008–2009).

guaranteed the continuity of the neoliberal agenda: price stability, sound fiscal policies, reduction of the national debt, liberalisation of trade and, above all, the promotion of a favourable environment for investment.

The alliance between the MEF and the business sector, especially the mining companies, dominated the political landscape during the previous two presidential terms. Some analysts have declared that, “the big corporations elect the minister of the economy, and the MEF controls the government on their behalf.”⁵⁶ Moreover, the public relations director of the most profitable company in Peru, the Southern Peru Copper Corporation (SPCC), openly confirmed the corporations’ policy: “Private companies are the only actors who can generate wealth and provide stability to this troublesome country. Thus, it is clear that the government should subordinate the rest of its policies to the smooth running of private businesses.”⁵⁷ This alliance rests on the assumption that economic growth automatically reduces poverty, which, in turn, generates political stability.

3.2 The unsatisfactory outcomes of neoliberal policies: territorial inequalities and lack of trust in public institutions

The strategy of the last governments appears to have been successful, as Peru has consistently been named among the Latin American countries in the best shape to face the global crisis that began in 2008 (The Economist, 2009, 2 May: 49-50). However, the lustre of the macroeconomic figures hides some less positive outcomes. Two problems illustrate the shortcomings of the strategy. First, the poverty gap between rural and urban Peru has widened during the last years (see Table 3.2). Second, there is widespread suspicion of state capture by private interests, especially the mining and oil companies. The sanctioning of the Mining Programme of Solidarity with the People (MPSP) and the revelation in October 2008 of evidence of corruption in the granting of exploration rights to a Norwegian oil company reinforced this popular belief (O’Brien, 2009), further eroding the already weak legitimacy of the state.

⁵⁶ Interview with Sinesio López (2007-011; Lima, 12-06-2007).

⁵⁷ Interview with Guillermo Vidalón (2008-149; Lima, 06-08-2008).

3.2.1 *The poverty gap between rural and urban population*

Poverty and inequality have marked Peruvian history. Although this is a common feature in the Global South, the Peruvian record during the last four decades is sadly outstanding. In the 1970s and 1980s, the incidence of poverty increased in comparison to previous decades and to the rest of Latin America (Sheahan, 1999: 105). In 2001–2008, impressive economic growth fostered a significant improvement in the overall level of poverty, which dropped from 54 per cent to 36 per cent (INEI, 2009c). Yet, this reduction was concentrated in coastal and urban areas, leaving the rural hinterland of the Andean and Amazonian regions worse off in comparative terms.

Table 3.1 Evolution of Gini coefficient, 1986–2003*

Year	Gini
1986	0.457
1990	0.439
1996	0.462
2002	0.546
2005	0.520

* Data for 1990 are based on expenditure at household level, whilst data for the remaining years are income-based.

Source: (World Bank, 2010).

Levels of inequality have increased in Peru in recent years. The Gini index was 0.520 for 2005 (Table 3.1), meaning that Peru ranked among the most unequal countries in the world: 109th out of 126 (World Bank, 2010).

A deeper analysis shows that this income inequality strongly correlates with geographical factors; and, that in the context of runaway economic growth, the gap between urban and rural areas has widened. Lima and the coastal regions have enjoyed the lowest levels of poverty and consistently improved their indicators over recent years, dropping from 39 per cent in 2001 to 21 per cent in 2008. However, in sharp contrast, the Andean sierra (especially its rural areas), which was already poorer, has made significantly weaker progress, with its level of poverty stagnating at a shocking 69 per cent in 2008 (Table 3.2).⁵⁸ In the same year, the Pearson

⁵⁸ See Appendix II for additional statistics for the period 2001–2008 on the percentage of the population living below the poverty line in different geographical regions.

correlation between the level of poverty and the percentage of rural population was 0.6 and 0.9 at municipal and regional level respectively.⁵⁹

Table 3.2 Percentage of population below the poverty line in different geographical regions of Peru, 2008

	Lima	Coastal region		Andean Sierra		Amazon rainforest	
		Urban*	Rural	Urban	Rural	Urban	Rural
Poverty %	18	23	35	34	69	31	49

* Excluding Lima.

Source: (INEI, 2009a).

The figures in Table 3.2 tend to understate the real differences between regions. This is because official poverty levels are measured against minimum consumption expenditure, which varies from region to region according to an (also variable) basket of basic goods and services (INEI, 2009a:1-4). Differences become more acute on comparing per capita average monthly income by geographical areas (Table 3.3).⁶⁰ As the figures indicate, differences in income are remarkably high and, although all geographical areas show improvement in average income, the change in rural areas – especially in the Andes– is notably smaller than in the rest of the country (see evolution in Appendix II).

Table 3.3 Average monthly per capita income in different geographical areas of Peru, 2008

	Lima	Coastal area		Andean Sierra		Amazon rainforest	
		Urban ^a	Rural	Urban	Rural	Urban	Rural
Income^b	703	482	334	505	185	431	224

^a Excluding Lima; ^b PEN at 2001 rates.

Source: (INEI, 2009a).

These differences between regions are more severe in Peru than in other Latin American countries. Moreover, despite the existence of a process of political decentralisation, economic activity remains highly centralised in Lima. In 2007, 31 per cent of the population lived in Lima, but the metropolitan area accounted for 47

⁵⁹ Author's elaboration with data from INEI (2008a, 2009c).

⁶⁰ The income estimate includes domestic production, payments in kind, and donations (INEI, 2009a).

per cent of national GDP, 87 per cent of internal tax revenue, and 50 per cent of central government's total expenditure (INEI, 2009c, 2009d). Furthermore, Peru represents the most extreme case in the Latin American context of the poverty gap between the capital city and the rural areas of the country (Table 3.4).

The recent democratic governments have paid little attention to these problems. They have prioritised economic growth over poverty alleviation, trusting in the conventional trickle-down effect to reduce poverty (García Pérez, 2007b, 2008). Moreover, they perceived inequality as a mere transitory by-product of growth and modernisation.⁶¹ However, the fact that inequality is grounded in geographical cleavages challenges the government's conviction because, in the absence of corrective measures, economic growth tends to exacerbate the differences. The government's denial of this factor is likely to increase political instability.

⁶¹ This is the Kuznets hypothesis, although there is no conclusive empirical evidence in the Latin American context, where economic growth has traditionally gone hand in hand with an increase in inequality (Székely & Montes, 2006:599-602).

Table 3.4 Relative importance of the main metropolitan area in relation to the rest of the country, and the poverty gap with respect to different geographical areas in various Latin American Countries

	Bolivia	Brazil	Colombia	Chile	Ecuador	Mexico	Peru
Index of metropolitan concentration^a	48	54	55	74	51	66	81
Percentage of rural population^b	36	17	23	14	37	24	27
Percentage of population living in poverty nationwide^c	54	30	45	14	43	32	39
Percentage of population living in poverty in metropolitan areas^c	41	27	34	10	na	27	18
Percentage of population living in poverty in rural areas^c	76	46	51	12	50	40	65
Poverty gap incidence between rural areas and the national average	22	16	6	(2)	7	8	26
Poverty gap incidence between rural areas and the capital	35	19	17	2	na	13	47

^a Percentage of the combined population of the four largest cities that lives in the largest city. The data are for different years: Peru 2007; Ecuador 2003; Bolivia 2008; Colombia 2007; Chile 2002; Mexico 2005; Brazil 2007.

^b Estimated data for 2005 (ECLAC, 2010). The criteria for differentiating rural from urban areas vary from country to country (ECLAC, 2005): Bolivia: population living in towns of less than 2,000 inhabitants; Brazil: population living outside the limits of rural areas, according to the boundaries of municipalities; Colombia: population living in towns of less than 1,500 inhabitants; Chile: population living in towns of less than 1,000 inhabitants, or in towns of between 1,000 and 2,000 inhabitants in which at least 50 per cent of the active population works in the secondary sector; Ecuador: population living in rural parishes and on the outskirts of provincial capitals; Mexico: population living in towns of less than 2,500 inhabitants; Peru: population living outside district capitals in agglomerations of less than 100 houses.

^c The data are for different years: Peru 2007; Ecuador 2007; Bolivia 2007; Colombia 2005; Chile 2006; Mexico 2006; Brazil 2007.

Sources: (ECLAC, 2005, 2010; INEI, 2008b; World Bank, 2010), adapted by the author.

3.2.2 Erosion of public's trust in political institutions

Unsurprisingly, despite more than eight years of significant economic growth and poverty reduction at national level, the Peruvian public's trust in the principal political institutions ranks consistently below the Latin American average (Table 3.5), which, in turn, is not the most positive region when it comes to judging its institutions (World Values Survey, 2009).

Table 3.5 Level of trust in political institutions: a comparison between Peru and Latin America (LA) as a whole

Trust in ^a ↓	1996		2001		2004		2007	
	Peru	LA	Peru	LA	Peru	LA	Peru	LA
Parliament	35	26	23	25	15	26	17	31
Judiciary	26	34	16	28	20	33	16	31
Government	29	35	-	-	9	31	22	39
President	34 ^b	40 ^b	31	31	7	37	25	46
Political parties	20	22	24	20	11	19	14	20
Police	31	31	23	30	24	36	33	40

^a Percentage of people who said they had 'strong' or 'some' trust in the institutions.

^b 1997 data.

Source: (Latinobarómetro, 1995-2008).

Trust in Parliament, the judiciary and political parties tends to decline. Circumstantial factors determine the scores for the government and president. Ironically, before the revelations of widespread mismanagement, Fujimori and his government (1996) achieved the highest Peruvian score. In contrast, Toledo (2004) attained the lowest level of popular trust ever enjoyed by any Latin American authority in this kind of survey. Finally, trust in Garcia's government started to decline after the first year of relatively generous public support, as his 22 per cent rating of 2007 declined to 15 per cent in 2008 (Latinobarómetro, 1995-2008).

This general distrust of political institutions goes hand in hand with increasing discontent with the current democratic system. Only 16 per cent of the Peruvian population appeared to be satisfied with the political situation in 2008, the lowest percentage in Latin America and 21 points below the average for all Latin American countries. In contrast, 88 per cent believed that a few powerful groups controlled

the country in their own interests (Latinobarómetro, 1995-2008). This lack of public trust in political institutions is an important factor in the explanation for the local dynamics behind the increase in social conflict (Chapter 6) and the waste of financial resources at local level (Chapter 8).

3.3 Economy of extraction in its historical perspective: political dynamics and social outcomes

Post-independence Peru did not escape the mining character of colonial rule. The Spanish crown's avarice for Peru's gold and silver shaped not only relations between colony and crown for 300 years, but also the internal economic and political structures inherited by the newly independent republic. This section examines the political dynamics and the social consequences related to this economy based on extraction highlighting their relevance for the implementation of the NEIS.

3.3.1 Economic cycles and political dynamics

Thorp and Bertram (1978) propose a still widely accepted view of post-colonial economic history structured around three major export cycles of about fifty years each. The guano economy characterised the first cycle, beginning in the 1830s and expanding until the War of the Pacific with Chile (1879–83). Peru's defeat meant the destruction of the country's economic infrastructure and brought about a time of political and social turmoil (Klarén, 2000:191-194).

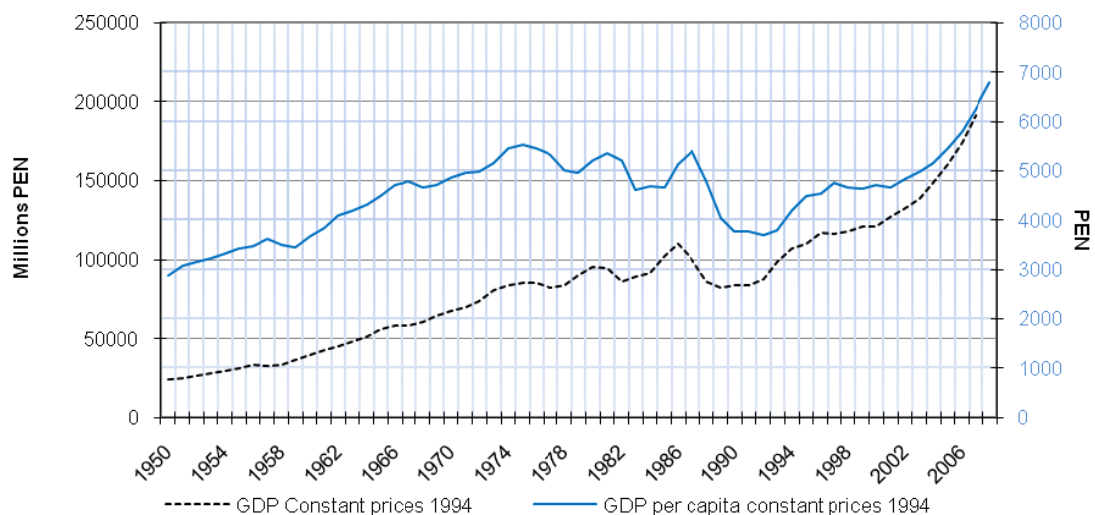
The second cycle began in the late 1880s, with the reconstruction of the country. The exploitation of minerals and the growing participation of foreign companies were the main features of this period, which came to an end with the Great Depression of 1929 (Dore, 1988).

The third cycle ran between the economic recovery of the 1930s and the early 1980's.⁶² The Second World War and the subsequent expansion of the world economy fostered Peruvian exports of agricultural products, fish and minerals. Crops and fisheries comprised the bulk of exports in the early 1940s, but minerals

⁶² Thorp and Bertram dated in 1974 the end of this cycle. However, according to data now available (Figure 3.2), this period can be extended to the early 1980s. When the book was published in 1978, they could not predict that the crisis of the early 1970's was only an early sign of the definitive collapse of this cycle of exportation.

began to increase in importance during this period, until they constituted 53 per cent of total exports by 1974 (Thorp & Bertram, 1978: 208). After the crisis of the 1970s, Peruvian exports underwent a sharp increase during the short period 1978–1980, largely due to a rise in mineral prices. However, the early 1980s witnessed an unparalleled fall in Peruvian exports, which preceded the unsustainable increase in public foreign debt, the dramatic drop in national GDP (Figure 3.2), and the hyperinflationary crisis of the late 1980s. The negative impact of this phase had long-lasting effects: GDP per capita fell by 33 percentage points between 1975 and 1992 (from PEN 5,542 to PEN 3,686), and it took a further 14 years – until 2006 – for GDP per capita to recover to 1975 levels. It was not just one lost decade, but three.

Figure 3.2 Change in GDP and GDP per capita, 1950–2008 (PEN at 1994 rates)



Sources: (Banco Central de Reserva del Perú, 2009; ECLAC, 2010).

With respect to the interplay between economics and politics, Thorp and Bertram (1978) note that periods of relative political stability and conservatism coincide with phases of upturn in exports. In contrast, political unrest corresponds with crises in the export economy. In the three cycles, crises fostered the greater intervention of the government in the economy and the introduction of protectionist policies to counteract the previous free trade orientation.

Moreover, in the three cycles, foreign investment played a significant role once the new phase of exports had come into play. In the middle of the expansive phase of the cycle, foreign companies took the lead with the collaboration of local capitalists

seeking opportunities to gain access to technology, financial resources and international links. The political position of this coalition of local and foreign capitalists was reinforced by the model of export-oriented growth:

Periods of successful export growth rapidly consolidated the political power of those who reaped the benefits of comparative advantage, and thus ensured the supremacy of policies which served their interests, so that the familiar orthodox policy mix of *laissez-faire* liberalism and encouragement for foreign investment grew naturally out of export growth, rather than vice versa. Once adopted, of course, such policies thereafter produced acceleration of the growth of export-linked activities, encouraging the concentration of economic activity in parts of the modern sector while the rest of the economy was left to drift (Thorp & Bertram, 1978:323).

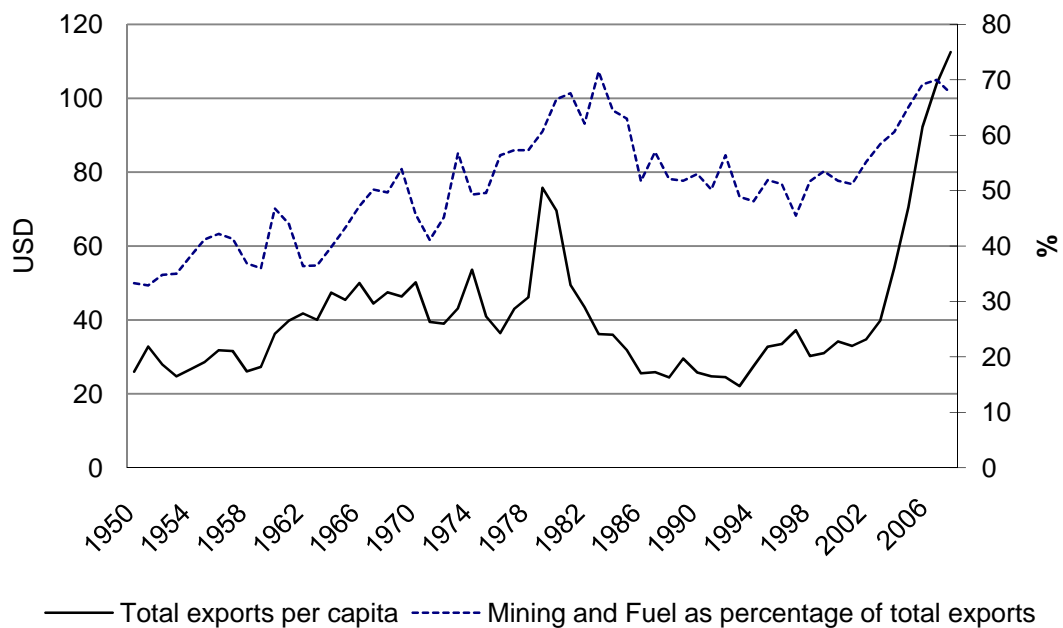
Following Thorp and Beltran's analysis, the existence of a fourth cycle that started in the early 1980s and is currently at the peak of a remarkable export phase (Figure 3.3) is a reasonable hypothesis. Minerals account for almost 70 per cent of total exports in this most recent phase. As with the previous cycles, it started with the instability generated by the collapse of the preceding one, which, in turn, led to an initial recovery and, finally, a boom phase.⁶³ In relation to the questions driving this thesis, it is relevant to analyse how this new economic cycle interacts with the political domain and, therefore, how it influences the implementation of the NEIS.

As has happened in previous cycles, representatives of the leading economic sector gained political leverage and fostered policies favouring their interests. In this case, mining companies have widely publicised the importance of mining for the country's economic growth and for its fiscal balance (Macroconsult, 2008). They tried to reinforce their political position with the government and to attract popular support for their activities. It is clear that during the last years, mining companies received full government backing by making regulations responsive to their commercial interests. However, this close collaboration between the mining companies and the government has provoked a political backlash from different segments of society. First, some political groups perceive the alliance between the government and the companies as an attempt to sell the nation's riches off cheaply to foreign interests for the private gain of an elite. This nationalist discourse is popular with poor populations in rural areas of the Andes, the stronghold of Ollanta Humala, the 2006 nationalist Presidential candidate. Second, ecology groups fear

⁶³ A more detailed analysis of the specific features of this hypothetical new economic cycle can be found in Gonzales de Olarte (2005).

that the government prioritises economic growth over the enforcement of environmental regulations. Finally, people living in resource rich areas feel that the government has become too close to the mining companies to be a fair arbitrator in their frequent disputes with them. The result is the further erosion of public trust in the government.

Figure 3.3 Peruvian exports per capita, 1950–2008 (USD at 1950 rates) / minerals and fuel as a percentage of total Peruvian exports, 1950–2008



Sources: (Banco Central de Reserva del Perú, 2009; ECLAC, 2010).

3.3.2 Social outcomes of the extractive economy

According to Thorp and Bertram (1978:326), acute inequality and widespread poverty have usually been the consequences of these economic cycles driven by natural resource booms. The picture of the national long-term perspective is grim enough, but the experience at regional level was more intricate and multifaceted. Mining development in the central highlands during the 20th century is a good example of this complexity. Academics have reached different conclusions about the impact of mining activities in Peruvian mining regions during the 20th century. Some of the pioneering studies affirmed that mining conformed to an enclave economy, with no linkages to other local economic sectors (Flores Galindo, 1974; Kruijt & Vellinga, 1979). According to these analyses, the local population did not

benefit substantially from mining because they were exploited (miners), dispossessed of their land (smallholder peasants), or simply neglected.

Subsequent analyses contested, at least partially, this perspective. De Wind (1985, 1987) agreed mining had a negative impact, but he challenged the view that mining was isolated from other economic activities. From the perspective of dependency theory, he analysed the presence of the Cerro de Pasco Copper Corporation (CPCC) in the central highlands and argued that by buying large land holdings the company tried to reduce job opportunities and salaries in the agriculture sector. This move aimed to facilitate the recruitment of enough workers for the mines. These dynamics transformed the traditional labour organisation in the agriculture sector and the use of land, generating long-lasting socio-economic changes in the rural areas. He concluded that the mining industry accumulated wealth at the expense of the rural agricultural sector.

Long and Roberts (1984), not disputing the subordination of agriculture to the company's interests, pointed out three main positive linkages between mining and the regional economy. First, mining was labour-intensive employing large number of miners who alternated between periods of work in the mines and subsistence farming. They spent their wages in the local markets, fostering a multitude of informal small-scale enterprises. Moreover, there were a large number of independent producers of ore scattered across the region that sold their production to the CPCC. They also required workers for their enterprises. Second, the CPCC and the independent producers purchased local construction materials, machinery and other supplies promoting local commerce and small scale manufacturing (Long & Roberts, 1984: 47-49). Finally, the need to ship the ores produced in small mines to the CPCC smelter facilities, the commercial dynamism of the region, and the growing mobility of people demanded transport that was mainly supplied by local firms. These linkages were enough to stimulate economic dynamism in the region.

The situation started to change in the 1960s, when technological improvements in the mining sector reduced the workforce and transformed the relationship between the company and the local economy (De Wind, 1987). The process of capital intensification weakened the demand for local unskilled labour and locally manufactured machinery, eroding links with the local economy. This tendency was reinforced in subsequent years. Mining companies now hire qualified people from

Lima or other cities in the country. They purchase machinery abroad, and even the food supply for the workforce comes from Lima to meet the standards demanded by the labour unions. Nowadays inhabitants in mining areas perceive the mines to be controlled from Lima and bring little benefit to the locals. Not surprisingly, job opportunities in the mines for locals are the most frequent demand in mining regions.

3.4 The emergence of new and more dispersed political actors

The agrarian reform, the internal war, and the crisis of the political parties and labour unions have nurtured a redrawing of the map of Peruvian political actors. In the last few decades, the Peruvian elite and its challengers have moved in opposite directions. On the one hand, the elite has become increasingly concentrated – both in terms of membership and location – in Lima (Cotler, Barrenechea, Glave, Grompone, & Remy, 2009:13-23; Manrique, 2006:24). On the other hand, the challengers are now more dispersed. Local and regional movements of different kinds have multiplied and replaced political parties, labour unions and more organised urban social movements. They frequently build their constituency and legitimacy by echoing long fomented local struggles actualised through the articulation of new grievances and claims. This section presents two actors that strongly influence the local dynamics around the implementation of the NEIS: peasant communities and regional political movements.

3.4.1 *Peasant communities*

The ‘peasant community’ is a concept that includes diverse types of entity. There are three basic features of a community: (i) the control of resources within a delimited territory, (ii) some degree of communal management of these resources, and (iii) the existence of institutionalised organs for decision-making and external representation. Within this loose definition, traditional communities whose history goes back to the colonial era coexist with those formed through the collectivisation and co-operative project of Velasco Alvarado’s agrarian reform. Moreover, communities built around strong *Quechua* or *Aymara* indigenous traditions enjoy the same legal recognition as the free associations of owners of small plots of land (Castillo Castañeda, 2007).

By 2006, there were 5,818 peasant communities encompassing 4 million people – 15 per cent of the country's total population – occupying 25 million hectares, more than 40 per cent of the productive land (Castillo & Urrutia, 2007:12-14). However, these communities accounted for the poorest section of the population and the soil on their land was of comparatively low fertility.

After the corporatist period of Velasco Alvarado (1975), the peasant communities fell on difficult times. Internal disputes within the communities, the violence that swept the Andean countryside during the 1980s, and the subsequent promotion of more liberal/individualist policies weakened the organisational capacity and political role of the Andean peasant communities. Moreover, the emergence of municipal governments as powerful actors eroded the role of the community as the principal local grassroots institution. The peasant communities controlled the territories, but institutional representation, political power and the economic capacity to get things done were put in the hands of the regional authorities. Thus, some commentators predicted the communities were doomed to lose their institutional importance.⁶⁴

In contrast to the diminution of their political role, simultaneous processes helped to keep alight the lingering embers of a more complex peasant identity. Thus, although 'being an Indian' was still considered a social stigma in the Andes, the growing international support for the indigenous cause in the 1980s and 1990s opened up spaces for the reconstruction and exploitation of an indigenous identity among some social leaders (Yashar, 2005). Additionally, the *rondas campesinas*⁶⁵ crucial role in the fight against the Shining Path in the countryside (Degregori, 1998) also boosted the self-image of Andean peasants as genuine Peruvians who defended the nation, while the *blanquiñosos*⁶⁶ in Lima were doing nothing.⁶⁷

In the late 1990s, when the mining companies started to expand their activities in the Andes, seizing mineral deposits to exploit, their presence provoked indigenous-peasant communities to reinvent themselves in answer to both the external threat to their control of the land and a rare opportunity to improve their economic

⁶⁴ Interview with Alejandro Diez (2008-017; Lima 14-04-2008).

⁶⁵ Traditional rural organisations that were set up to prevent cattle rustling. Later, they started to play an important role in settling disputes among villagers and providing security for the population.

⁶⁶ White people.

⁶⁷ This is very much in contrast to the traditional image of the elite *limeña*, who dismiss the 'Indians' as not being real patriots (Mallon, 1995:1-2).

situation (Castillo Castañeda, 2007; Diez 2006:88-97). Indeed, their subsequent interlocution with mining companies that needed their land and water reinforced their position, granting them a renewed political role.

Two factors raised the leverage of the communities in their relations with the companies. First, the law demanded that the companies should reach an agreement with the owners of the land. Second, beyond this formal requirement, there was mounting pressure on the mining companies to obtain a 'social licence to operate'. This meant that the companies had to get explicit permission from the local communities to proceed with their activities (World Bank, 2003: 21,50). Failure to procure this social license to operate led to serious loss of reputation thanks to the action of global networks that connected local disputes to international forums (Bebbington et al., 2007).

3.4.2 Regional movements and other local actors

Despite the prophecies of the 1980s that gave prominence to the new urban populations as catalysts of social change (Matos Mar, 1984), in recent years, the most significant forces demanding innovation have emerged from the countryside in regional and local scenarios. The discredit of political parties in conjunction with the decentralisation of resources to local and regional governments has promoted the emergence of fresh political leaders at grassroots level. Local politicians no longer need to follow a traditional party career that implies taking a party line, loyalty to the party leadership, and internal competition in order to demonstrate capability. On the contrary, in this new era, local leaders are encouraged to prove that they are not slaves to party discipline, or indeed to any authority beyond their own constituency.

Thus, at sub-national level, politics have become the domain of local leaders with very weak connections to national parties. This generates a partisan dynamic between the centre and the regions, and between regions and districts, in which local leaders tend to champion popular claims in order to build their own political agendas in opposition to those of the regional or national governments. This dynamic has two consequences: (i) conflicts are sometimes local leaders' means of gaining popular support (Revesz & Diez, 2006); and (ii) local leaders take little part

in national politics, and regional perspectives are thus underrepresented at national level.

The *frentes de defensa*⁶⁸ have recently proliferated as local political organisations in the countryside. These *frentes* bring together an array of regional groups to defend local interests and, increasingly, to oppose policies that affect them. They are usually formed when institutional channels have proved to be inefficient, consequently, their approach combines popular mobilisation (demonstrations, marches, public assemblies, and, in some case, regional strikes) with the advancement of an agenda for negotiation. This kind of organisation is very flexible in terms of both its membership and thematic focus. Once a *frente* has demonstrated its ability to challenge authority on one specific issue, the same name, organisational structure and strategies are frequently used to address other problems. Sometimes leaders use their participation in the *frentes* as a platform to advance their own political careers, or to contest local and regional elections (Panfichi, 2010).

As with peasant communities, the growing presence of mining companies in the countryside has incited the formation of larger number of *frentes*. Despite their success, the *frentes* remain highly localised and until now have not shown themselves to be either capable of, or interested in forming a more articulate national social movement (Panfichi, 2009).⁶⁹ But this could change.

In summary, the emergence of actors who channel local discontent directly to the authorities has made the persistence of poverty and inequality affecting rural areas increasingly untenable for the central government. This has increased the instability of the Peruvian polity. Each of these actors alone lacks the capacity to successfully challenge the central authority. However, their fragmentation and lack of connection with national parties, economic power bases or the central government all make it more difficult than in the past to co-opt or repress them.

⁶⁸ Defence fronts.

⁶⁹ The indigenous demonstrations of 2008 and 2009 are a possible exception due to the pre-existence of the National Organization of the Amazon Indigenous People of Peru (AIDSEP) and the Confederation of Amazonian Nationalities of Peru (CONAP), national umbrella organisations that encompass local organisations all over the Peruvian Amazon.

Most 'developing countries' face significant problems of governance and political legitimacy. These have always existed in Peru. They have become really severe in recent years. The implementation of the NEIS should be examined against this background of the growing alienation of the rural population from the state, the accumulation of local grievances aimed at the centralised elite, the discredit of institutions, the historical experience of mining activities and the emergence of an increasing number of widely dispersed political actors.

Chapter 4

Perspectives on social conflict in mining areas

This and the two succeeding chapters examine the relationship between social conflict and the implementation of the New Extractive Industry Strategy (NEIS) in the mining regions of Peru. The NEIS policies were deliberately designed to reduce friction between local populations and mining companies. Thus, the claim that the NEIS has not only failed to reduce social conflict, but, in fact, has multiplied them puts seriously into question the soundness of the strategy. These three chapters aim to substantiate this claim through a three step analysis. I start by reviewing, in this chapter, the conventional wisdom concerning the relationship between mining and local disturbances. In Chapter 5, I use a dataset of social conflict in Peru to test quantitatively the factors affecting the variations in the incidence of conflicts across the Peruvian regions. The results show a clear correlation between the increase in social conflict and the amount of *canon* transfers received by the sub-national governments of the region which in turn, are directly associated with the profits of the mines in the same region. These results are unexpected because previous studies did not suggest this ‘money’ factor as a possible cause of disturbances. In Chapter 6, I present the results of my field research into social conflict in 3 regions. These support the claim that the level of *canon minero* transfer is the dominant driver of conflict.

Thus, I start my analysis by asking what is known about the relationship between mining and social conflict. First I examine what different Peruvian actors have to say about the issue. Second, I review the academic literature on the topic. I conclude with some reflections about how to research the issue.

Neither popular nor academic explanations of mining and social conflict in Peru take sufficient account of the situation created in the mining areas by the implementation of the NEIS. The public debate mainly concerns stereotypical interpretations that overlook the diversity and complexity of social conflicts, while academic studies focus on a small group of cases where impact on the environment and uncertainty about livelihoods were the most significant issues. Although these studies contribute to a better understanding of these disputes, they have not captured the emergence of new types of social conflict. Thus, the chapter

ends by arguing the case for a broader methodological perspective to the study of mining-related conflicts in Peru.

4.1 What do different Peruvian actors think about social conflict and mining?

I begin this thesis by telling the stories of Santiago, Isabel and Antonio (Chapter 1), and their involvement in three different mining-related conflicts. Unfortunately, their stories are not exceptional. From 2004–2008, there was an upsurge in social conflict in Peru (Defensoría del Pueblo, 2009). This growing social unrest is also captured in Peru's remarkably low score and deteriorating trend in political stability, as measured in the World Governance Indicators (World Bank, 2009).

Untypically, the Peruvian government, the mining companies, and leaders of social movements agreed that extractive activities were at the centre of the escalation of social conflict. However, as was to be expected, they offered an array of divergent and frequently conflicting explanations.

The national government gave two different types of explanation for the high incidence of disputes in mining regions. The first centred on the behaviour of opposition movements, while the second blamed the poor performance of local government. The government used the first type of explanation for conflicts that grew into national political issues. The president himself repeatedly declared that they were the result either of the concerted resistance of ignorant rural inhabitants to the very modernisation process that would bring prosperity to them, or of an international communist conspiracy against the country's most dynamic economic sector (García Pérez, 2007a). Frequently, the two arguments were combined into a catch-all explanation of how global forces in collaboration with allegedly left-leaning international NGOs and their domestic counterparts, the progressive wing of the church and other supposedly radical groups to manipulate an ignorant population to create conditions favourable for popular rebellion (El Comercio, 2008b; García Pérez, 2009).⁷⁰

Thus, taking the clash in Bagua in which my friend Santiago was wounded, the official line given by various ministers and President García himself was that

⁷⁰ This was also the opinion of some company managers in the following personal interviews: 2007-005 (Lima, 11-06-2007); 2008-051 (Pasco, 13-05-2008); 2008-102 (Huaraz, 23-06-2008); 2008-149 (Lima, 06-08-2008).

international forces in collaboration with local radicals had manipulated the uneducated indigenous population with the intention of impeding the modernisation of Peru.⁷¹ When Santiago heard this presidential statement, he felt that the government did not understand what had really happened. He explained to me that the protest was a genuine grassroots movement born out of people's real fear of losing control over their territory.

This type of official explanation is not only inadequate, but also dangerous because it led to the heavy-handed repression of popular movements. García's statement after the bloodbath in Bagua illustrates his approach: "the government is determined not to allow a group of 400,000 indigenous people, who are not first class citizens, to decide what to do in the country."⁷² The government replicated this repressive stance in other places, as the tragic militarisation of localities around the Rio Blanco project (Majaz) demonstrates.⁷³

The government sometimes uses a second type of explanation. When confronted with the fact that protesters frequently did not oppose mining per se, ministers and high ranking bureaucrats put the blame on the sub-national governments and their inadequate responses to the needs of their people.⁷⁴

Mining companies were deeply concerned about the escalation in conflicts, and perceived them as a real threat to their businesses. At the international level, the Fraser Institute's *Annual Survey of Mining Companies* ranked Peru among the most attractive countries in terms of the economic potential of its mineral reserves, but very low in terms of political variables – security, political stability and disputes over land and indigenous people's rights (Fraser Institute, 2009).⁷⁵ A survey among the top managers of 36 of the most important mining companies operating in Peru corroborated this view (Apoyo, 2009a). The respondents identified the incidence of social conflict – in 98 per cent of cases – and political instability – in 90 per cent of cases – as the two factors most detrimental to mining investment, way above other

⁷¹ This discourse is in line with President Garcia's fixation with 'the dog in a manger' fable as a means of explaining Peru's problems (García Pérez, 2007a).

⁷² The interview can be seen at <http://www.youtube.com/watch?v=JDVgw4pbHEk>

⁷³ <http://www.larepublica.pe/archive/all/larepublica/20091213/1/01/todos>

⁷⁴ Presentation of the Minister of Trade at the 29th Mining Convention (Arequipa, 16-09-2009).

⁷⁵ The Fraser Institute sent a questionnaire to approximately 3,000 exploration, development and mining consultation companies around the world. Its *Annual Survey of Mining Companies* represents responses from 658 of these companies.

typical business concerns such as the tax system – 48 per cent of cases – or credit availability – 5 per cent of cases.

However, the mining companies were by no means unanimous about the reasons behind the growing incidence of conflict; and in my interviews with corporation representatives I came across at least two quite different perspectives. The Southern Peru Copper Corporation (SPCC)⁷⁶ and a group of middle-sized companies with strong connections to the Peruvian political elite tended to endorse the official explanation for conflicts as the work of ‘troublemakers’.⁷⁷ Some even went as far as to put the blame squarely on terrorist elements supposedly linked to the Shining Path.⁷⁸

Alternatively, some mining companies – especially the big international concerns with extensive experience worldwide – recognised that no conspiracy theory was needed to account for the proliferation of conflict situations, and listed a set of more prosaic explanations. First, they were well aware of the impact mining has on host communities. In the words of one manager: “mining activities are closer to the harmful effects of the tobacco industry than to a bucolic dairy farm in the pristine countryside”.⁷⁹ Second, they tended to blame the state for its inability to deliver services to its population and for its failure to guarantee a business-friendly environment at local level.⁸⁰ Finally, in private, some managers conceded that the inappropriate behaviour of some companies generated problems. Among bad corporate practices they cited attempts to mislead the population over the real

⁷⁶ In recent years, SPCC has consistently been ranked among the three largest – in terms of income – and most profitable companies in the country (CONASEV, 2010). Since the early 2000s, it has been part of the Grupo Mexico, which bought it from the previous US owners. The linkages between SPCC and the Peruvian political elite are well established. The career trajectory of one of its most senior managers, Hans Flury, illustrates these connections. He has worked for SPCC for more than 30 years. In 1997 he was elected president of the National Society of Mining Oil and Energy (NSMOE). In 2003, he left SPCC to become Minister of Mining and Energy. After some months in that position, he went straight back to SPCC. In 2009, he once again assumed the presidency of the NSMOE, while maintaining his responsibilities at SPCC.

⁷⁷ This was the opinion of company managers in the following personal interviews: 2007-005 (Lima, 11-06-2007); 2008-051 (Pasco, 13-05-2008); 2008-102 (Huaraz, 23-06-2008); 2008-149 (Lima, 06-08-2008).

⁷⁸ Interview 2008-051 (Pasco, 13-05-2008).

⁷⁹ Interview 2008-084 (10-06-2008).

⁸⁰ Interview 2008-083 (Lima, 9-06-2008) and a study commissioned by the NSMOE (Apoyo, 2009a).

impact of mining operations, mafia-like strategies to intimidate local opposition, and disrespect for local authorities.

These private confessions portray a lack of unity in the industry, whereby international newcomer companies feel uneasy about the way their peers have managed relations with national and local political actors. In a particularly shocking statement, a senior manager of one international company said they hoped (SPCC) would not go ahead with its new *Tia María* operation, which had met strong opposition from the peasant population of Islay (Arequipa). According to this informant, SPCC had “handled things so badly that a green light for this operation will mean that anything is permitted and, consequently, some companies can maintain their unscrupulous style of doing things.” He added that, “it would be the wrong signal for the industry as it would jeopardise the future of mining in the country”.⁸¹

The social movement around mining has also its internal differences. Most groups tend to think of social conflict simply as concerted popular resistance to global capitalist forces and environmental destruction, the mining sector being regarded as the epitome of such exploitation (Bajo la Lupa, 2009; Echave de, Hoetmer, & Palacios, 2009; Palacín, 2008). However, other civil society groups such as Oxfam, CooperAccion and Labor⁸² do not rule out the possibility that under the right conditions mining could contribute to local development. They suggest conflicts are mainly caused by lack of institutional arrangements to properly regulate mining operations, and to the myopic perspective of the companies in forcing local administrative processes to dance to the tune of maximum short-term company profits.⁸³

Unfortunately, the two extreme interpretations of conflict – the official conspiracy theory and the narrative of popular resistance to environmental destruction – are the most widespread in the media and dominate the political debate. They tend to oversimplify the situation, ignoring the existence of different types of conflict and the complex web of interests at stake. The prevalence of these discourses also results in limited political diagnosis and confrontational attitudes that frequently

⁸¹ Interview 2010-201 (Lima, 5-04-2010).

⁸² CooperAccion and Labor are well respected Peruvian NGOs with a long tradition of work on behalf of populations affected by extractive industries.

⁸³ Interview 2010-006 (08-04-2008).

worsen the situation. Although conflict is sometimes unavoidable – and may even be productive – the stories of Santiago and the others seriously injured or killed in Bagua and similar incidents elsewhere, demand a deeper understanding of the situation so that better and more appropriate institutions and mechanisms are put in place to deal with conflicts of interest in a less violent and painful fashion.

4.2 What does the academic literature say about the relationship between mining and social conflict?

Over the last decade, research into the links between social conflict and the intensive exploitation of minerals and oil has generated two different – largely unrelated – bodies of literature. Economists and political scientists have studied the influence of natural resources on the outbreak and duration of civil wars.⁸⁴ Frequently these authors have framed their research within the debate surrounding the ‘resource curse’ hypothesis (see Section 1.4). Most of these studies rely primarily on large-*N* cross-country comparative analyses, although some authors have also carried out small-*N* comparisons and national case studies (Holden & Jacobson, 2007; Ross, 2004a; Weinstein, 2007).

Another body of literature deals with conflicts related to the exploitation of natural resources that do not conform to the definition of civil war. These studies have focused on how mines and oil wells – typically owned or managed by large, powerful, international companies – affect (poor) communities in their localities.⁸⁵ Such conflicts usually have a local dimension and are the domain of anthropologists and political geographers who conduct single case studies or small-*N* comparative studies.

It is clear that from 2004-2008, there was nothing resembling civil war in Peru. The most common type of social conflict in Peru comprised middle ground disturbances in which a group of protesters did at least one of the following: (i) threatened the

⁸⁴ Civil war is usually defined as a conflict over government or territory that involves a minimum of 1,000 battle-related deaths per year in the case of a full-scale civil war, and 25 for lower-intensity internal armed conflict.

⁸⁵ Comparatively, mining has received more attention than oil regarding this kind of dispute with local communities. The growing difficulty faced by mining companies in appeasing local populations near their operations might explain this special interest. However, the oil-related Niger Delta case that recently hit world headlines has attracted wide academic interest (Frynas, 2000; Watts, 2004), partly because oil in the Delta has an unusually highly adverse environmental impact.

integrity of life or health; (ii) damaged private or public property; (iii) obstructed freedom of movement; (iv) impeded the exercise of public authority; and/or (v) obstructed public service delivery (Defensoría del Pueblo, 2009). This kind of social conflict is due to the impact of mines and oil wells on local communities rather than civil war. Having reviewed – in the first chapter – the literature on the relationship between war and natural resource exploitation, in this section I examine the literature on these more localised conflicts, first in places other than Peru, and then recent studies of Peruvian cases.

4.2.1 The comparative literature

Recent studies of social conflict generated around mining have paid special attention to the Melanesian and Andean regions because of the importance of mining and the high incidence of disturbances. From this literature, three main types of explanation for mining-related conflicts emerge: (i) ecological crisis; (ii) threat to local livelihood; and (iii) dissatisfaction with the distribution of rent. Of course, these hypothetical causes rarely define clear-cut processes. In most cases, they are amalgamated into a single local discourse; and, indeed, they are usually variously and simultaneously said to be at work in each actual situation (Banks, 2005). However, for the sake of analytical clarity, I present them separately and highlight their differences.

The environmental damage caused by large mines has been the most popular explanation for the social conflict surrounding the mining industry. Pioneering work on Melanesian communities pointed to the negative impact of these mining-created ‘ecological crises’ on the lives of indigenous populations as the main factor behind conflicts in Papua New Guinea (Hyndman, 1995, 2001; Kirsch, 2004). Martínez-Alier (2002:54-77) also refers to ‘ecological conflicts’ in his historical analysis of mining impact. However, he introduces a political perspective when he frames environmental degradation in the context of a broader struggle over the control of resources.

This environmental focus has been challenged from two different perspectives. First, Banks (2002) claims that mining conflicts in Melanesia are at least as much about community development and livelihoods as they are about the environment. However, he argues that problems are framed as environmental or ecological

issues because this allows the affected populations and their allies to “tap into the strong international vein of environmental rhetoric to attract support in the developed world” (p.42).

In the Andean context, a group of scholars also focused on the disruption to local livelihoods as the main explanation for this kind of conflict (Bebbington & Bury, 2009; Bebbington, Hinojosa et al., 2008; Bury, 2002). According to them, mining activities generate uncertainty within the local population about their livelihoods and control over key assets such as water and land. A community that relies mainly on agriculture cannot afford the risk of depreciation in either the quantity or the quality of these assets. Thus, although environmental damage might be one outcome of a mining operation, the main engine of conflict is uncertainty over sustainable livelihoods.

Second, some authors push the challenge to the traditional environmental explanation even further, claiming that at least some conflicts must be understood in terms of competition over resource rents (Filer & Macintyre, 2006). Banks (2005:190) argues that traditional indigenous institutions in Melanesia were not designed to handle the distribution of mining revenue, resulting in disputes within the communities. MacIntyre and Foale (2002) focus on the relationship between the companies and local population, claiming that beyond real environmental fears, “the desire for development and wealth dominates discussions and the emphasis is on the extraction of benefits for local people, financial compensation for loss of land and resources, and improvements of infrastructure and services” (p.3). These findings about the relationship between resource rents and conflict at the local level in Melanesian mining regions suggest that something similar might be happening in Peru. Thus, I will consider these three explanations in my enquiry into the relationship between conflict and mining in Peru after the implementation of the NEIS.

4.2.2 Literature on Peruvian cases

Social conflict has also attracted the attention of scholars in Peru. Most analyses of conflicts around mining in Peru focus on a handful of emblematic cases, notably

those in Piura – Tambogrande and Rio Blanco – and Cajamarca.⁸⁶ Local opposition to new mining operations is the main cause of conflicts in Piura (Paredes, 2008; Revesz, 2009a, 2009b). The situation in Cajamarca is more complex: the prominent popular struggle against the expansion of the Yanacocha mine to Quilish Hill is a rare, although symbolically and politically important, case of collective opposition to mining. However, as some authors have pointed out, most opposition to mining in Cajamarca does not involve radical opposition to mining per se, but is an attempt to obtain satisfactory solutions to concrete, negotiable grievances and expectations (Bebbington, Hinojosa et al., 2008; Bury, 2002; Langan, 2008; Tanaka & Meléndez, 2009).

Salas (2008) and Gil (2009) focus their studies on the initial stages of the Antamina operation. Through a detailed ethnographic analysis they reveal how disagreements about compensation packages and resettlement were shaped by a complex combination of factors. They explain that the clumsy behaviour of the company interacted with the interests of some leaders to provoke social conflict. Both authors also point out that demands for financial compensation were already mixed up with other types of discourse in the conflicts between the company and the communities.

The core of the research into mining and conflict in Peru presents a coherent narrative about the effects of mining on livelihoods. Extraction industries' exploitation of mineral deposits generates local uncertainty about livelihoods and the control of key assets such as water and land (Bebbington, Humphreys Bebbington et al., 2008; Bebbington & Bury, 2009: 2-4; Bury, 2002).

Moreover, a series of institutional distortions characterise the interactions between extraction companies and local populations who remain unconvinced of the benefits of extraction. The state is generally eager to promote investment and is

⁸⁶ There have been also studies on Tintaya (Cuzco), Antamina (Ancash), and Las Bambas (Apurímac). Tintaya is frequently portrayed as an example of successful negotiations between the company and the population through the mediation of national and international NGOs (Aroca, 2008; Echave de, Keenan, Romero, & Tapia, 2005). Antamina has attracted attention on account of its enormous scale and the company's attempts to constructively engage with the local population (ICMM, 2007; Sanborn, Portocarrero, & Camacho, 2007). Finally, Las Bambas – still to commence construction – is expected to be the largest single mining investment in the history of Peru (Cooperación, 2006; El Comercio, 2009; Gouley & Kuramoto, 2007).

therefore reluctant to enforce regulations that can upset the companies. This arouses local suspicions of government collusion with company interests (Bebbington, et al., 2007: 5; de Echave et al., 2009: 389-390). In this context, local people conclude that open conflict is the only way to challenge the power of a *de facto* state–business alliance (Bebbington & Bury, 2009).

Although these studies on different conflicts in Peru provide a solid foundation for further enquiry into the topic, they collectively suffer three limitations. First, most deal with the situation before 2006 – the year that mineral prices boomed and social conflicts increased. Second, they focus on a handful of emblematic cases without considering the existence of a greater variety of conflicts. Finally, they tend to define mining conflicts as those involving active local opposition to the actions or presence of a mining company, thereby missing the extent to which mining also generates or exacerbates pre-existing conflicts within local society.

4.3 A new analytical framework for the study of the relationship between mining and conflict.

I argue that the implementation of the NEIS has changed the politics surrounding mining issues and social conflict. In assessing this new situation, I propose an analytical framework that takes into consideration two key aspects of the relationship between mining and social conflict: (i) the identification of new mining-related conflicts; and (ii) the relationship between intentions and legitimising discourses. Before presenting this analytical framework, I review the main features of the NEIS that have influenced the transformation of mining-related conflicts.

As stated in Chapter 1, the NEIS is a collection of policies aimed at counteracting hostility towards extractive industries through the devolution of a portion of the rents generated to populations living close to mines, and oil and gas wells. However, it is important to note that the NEIS is not a precise set of policies that are strictly implemented according to a well-defined ‘Washington Consensus’ type of plan. Rather, it constitutes a flexible framework that has been applied differently in different contexts. Generic political principles have been adapted in each country according to the interests and relative power of the mining companies, national government, political parties, and sub-national political movements (ICMM, 2006c).

Peru has adopted a radical version of the NEIS. An analysis of the case reveals the logic behind this set of policies. Since 2002, sub-national governments of regions and municipalities in which mines are located have received 50 per cent of the corporation tax paid by mining companies to the national government. Additionally, since 2006, the mining companies have become increasingly involved in the promotion of local development through the Mining Programme of Solidarity with the People (MPSP). Such a radical implementation of the NEIS results from the confluence of three political factors.

First, the companies needed to respond to popular resistance to the construction of new mines and the expansion of existing operations, which had threatened the good prospects of the mining industry in Peru since the early 2000s. Second, the increase in the percentage of tax distributed to sub-national governments was considered to be an obvious step on the road to democratisation and decentralisation impelled by the fall of the Fujimori regime. The weakness of central government and the national parties vis-à-vis the mining industry and regional political movements made this massive devolution of revenues politically viable. Finally, in the middle of a boom in mineral prices, the growing dependence of the Peruvian economy on its capacity to attract fresh investment in the mining sector provided the companies with sufficient political leverage to consolidate a favourable tax regime. In 2006, despite mounting popular pressure for a windfall tax and a favourable international environment for the introduction of such a measure, Alan Garcia's government bowed to the demands of the mining companies and agreed to set up the MPSP, an alternative voluntary contribution system directly managed by the mining companies as an alternative to a new tax.

The Peruvian government and the mining companies operating in the country used the changes in legislation for the distribution of the *canon minero* and the introduction of the MPSP as a quick fix to avoid the revision of key aspects of the mining industry. Popular mobilisations opposing mining expansion in Tambogrande, Cajamarca and Moquegua in the early 2000s (De Echave et al., 2009) signified the emergence of a new ethos that proclaimed the people's right to have a say in projects directly affecting their lives, and greater transparency in the relationship between the state and private investors. However, the government and the mining companies were concerned that allowing the public the power to decide over future investments could jeopardise the viability of the industry. Then, they

modified the law that regulate the distribution of *canon minero* thinking that people would be willing to exchange power for money. In a similar vein, the authorities promoted the MPSP to block any revision of the mining tax regime.

Lastly, it should be emphasised that the NEIS encompasses two different types of policy, which affect different actors and influence the polity through diverse channels. On the one hand, fiscal transfers to sub-national governments are implemented within the realm of state institutions. They require the active collaboration of different departments and levels of government, which eventually exposes problems with both the internal cohesion of the state and the relationship between the people and the state. On the other hand, corporate social responsibility (CSR) spending mainly concerns the companies and the populations living around operations, while public institutions are rarely involved in such transactions. This distinction between public and private channels and processes is analytically useful in distinguishing different types of conflict (Chapter 6).

However, it is also apparent that public and private realms frequently merge in the implementation of the NEIS. Mining companies tend to actively lobby for the decentralisation of revenue to sub-national governments in order to gain the support of local populations. In some cases, the companies even get involved in institutional politics through their support for sub-national government capacity building programmes. In parallel, CSR spending frequently results from political negotiation between companies and the government over the granting of mining rights; tax benefits; the more flexible enforcement of environmental legislation; or other advantages to the companies. The resultant contracts between the government and the companies have important political consequences. They tend to erode the legitimacy of the state and transform CSR projects into compensatory schemes for which the government become the ultimate guarantor.

4.3.1 The identification of new mining-related conflicts

The NEIS has reduced the incidence of genuine anti-mining social conflict; but it has increased the total number of clashes in fuelling disputes over the distribution of rent generated by the mines. Some of these conflicts can be included among the already documented struggles between local communities, and mining and oil

companies in which the former try to capture a greater share of corporate profits (Banks, 2005; Filer & Macintyre, 2006).

However, the NEIS has also generated a new type of middle ground conflict, neither national nor local, that is yet to be studied. The decentralisation of mining revenue has promoted such conflicts, in which the mining companies are generally absent. Local communities, urban populations of small towns, regional social movements, and public authorities at different levels of government are the main actors. Mismanagement by local authorities; opposition to national government policy; disputes among mayors, regional presidents and national ministries over unfulfilled promises; and disputed claims over the delimitation of territories trigger this type of conflict.

In order to detect the existence of these different types of conflict it is necessary to challenge the appropriateness of the individual mining operation as the unit of analysis. The emergence of new political dynamics at regional level; the distribution of the canon minero to regional and local governments; the concentration of mines in certain regions; and the proliferation of actors all make it advisable to take the region itself as the entry point for our investigation. This is not to deny the importance of local dynamics around particular mining operations but it helps to place them in a broader perspective. Thus, I use this new unit of analysis to undertake a comparative examination of the incidence of conflict across Peru's regions (Chapter 5) in which I test the capacity of mining rent to explain the incidence of conflicts vis-à-vis the other competing explanations usually included in the academic literature.

4.3.2 The relationship between intentions and legitimising discourses

The NEIS has increased the number of conflicts related to the distribution of mining rent that is either in the hands of the companies or in the coffers of *canon*-rich sub-national governments. However, these conflicts frequently appear in the guise of the more radical anti-mining disputes that the policy is intended to reduce. The use of a mixture of grounds and discourses on the part of local communities in their claims against mining and oil companies is not new. Banks (2002, 2005), and MacIntyre and Foale (2002) analyse the fusion of environmental, livelihood and rent-seeking arguments in mining-related conflicts in Melanesia. The novelty in the

Peruvian case is that the use of the NEIS to avoid a substantial revision of key aspects of the mining industry has promoted the blending of discourses in a way that makes it more difficult for either the government or the companies to determine the real intentions of the protesters. My analysis of two different types of conflict illustrates the perverse influence of the NEIS.

Substantial corporate profits tend to foster popular demand for a wider redistribution of mining rent; there is nothing new about that. However, the government's refusal to introduce a windfall tax has reinforced popular suspicion of state subordination to corporate interest, modifying the way in which the population conceives of and expresses its demands. In most conflicts between local communities and companies, the protesters frame their demands not in terms of a greater share in corporate profits, but as a compensation claim for both the money that the companies do not pay to the state and the potential environmental damage that the government is not willing to moderate. Moreover, the people frequently ratchet up the pressure on the company by arguing that they oppose mining activities. They resort to this more radical argument because they have not had the chance to express their opinions on the issue, since the government has repeatedly refused to guarantee their right to prior and informed consent to activities affecting their lives. The result is an escalation of conflicts in which the ultimate goals appear unclear to external observers.

Something similar occurs in a number of conflicts over the control and distribution of the *canon minero* by sub-national governments. The populations around the mines, and the local and regional authorities think of *canon minero* transfers as compensation for the exploitation of their natural resources. Accordingly, they perceive any attempt to modify legislation for the distribution of the canon that seeks to equalise the transfers that are distributed to each region as an unacceptable violation of their rights. Thus, they block such attempts by playing the card of underlying popular opposition to mining that may only be appeased through such compensation.

This strategy is effective because neither the government nor the industry can afford to risk the emergence of widespread opposition to the expansion of mining in the regions that host the main operations. The existence of such prevalent opposition is not real. Their political significance notwithstanding, there are few

cases of genuine opposition to mining. However, the government paves the way for the notion of widespread opposition to attain credibility by preventing people from expressing their opinions through institutional channels.

In Chapter 6, I propose a typology of conflicts that helps to untangle the intricate web of intentions, perceptions and legitimising discourses behind mining-related social conflicts in Peru. Our analysis is consequently able to reach beyond the stereotypical choice between 'greed' and 'grievance' (P. Collier & Hoeffler, 2004a) to discover how each type of motive reinforces the other

Chapter 5

More money, more conflict

Between 2005 and 2008, social conflicts became more frequent in Peru. Observers of Peru already know that and many also suspect or believe that an increase in conflicts around mining areas was the main cause of the overall increase. I confirm that suspicion by analysing a data set on social conflict built with information from the Ombudsman's office (Section 5.2). In Section 5.3, I build an index of the incidence of social conflict derived from the same source to determine the statistical correlates of (i) cross-sectional variations among regions in the incidence of social conflict and (ii) how those statistical patterns evolved in the period 2005–2008. It is here that my conclusions begin to diverge substantially from existing views, both popular and academic. There appears to be a strong statistical connection between mining and conflict. It is however indirect. It is not that changes in the levels of mining activity 'explain' – in a statistical sense – changes in the frequency of social conflict. It is rather that changes in the levels of *canon minero* transfers to sub-national governments explain changes in levels of conflict. These transfers are allocated through formulae that concentrate them in municipalities and regions where mining takes place (see Section 1.3). They are proportional to the profits of the mining companies that, in turn, are tightly associated with the international market prices for copper, gold, silver, zinc, lead, tin, etc. When those prices go up sharply, as they did in 2004–2008, sub-national government revenues also increase rapidly.

Through the analysis of regional variation in the incidence of conflict over the period 2005–2008, my study reveals that the strong statistical link between mining and social conflict does not seem to be a direct connection from mining to conflict. Mining generates rents; central government appropriates a small proportion of these, leaving the rest to the companies, and returns a high proportion of its 'take' to sub-national governments in mining areas. It is the per capita level of these rent transfers that best explains both cross-section and time series changes in the incidence of social conflict.

In Section 5.1, I present my data base on social conflict. In Section 5.2, I use it to demonstrate that it was mainly an increase in mining conflict that accounted for the overall increase in social conflicts over the period 2005-2008. In Section 5.3, I show that *canon* transfers at sub-national level is the variable that explains the relationship between mining and conflict.

5.1 The dataset

The pioneers in the social science analysis of conflict in Peru compiled datasets on contentious events from information published in national newspapers (Garay & Tanaka, 2009; Muñoz, 2006).⁸⁷ These datasets have made possible some insightful research; however, they have several limitations. The coverage of incidents is almost certainly incomplete because reporting reflects the partisan political biases of the newspapers. And, because different scholars define conflict differently, or are interested in different phenomena, there are very different estimates of conflict incidence. For example, for the period 1995–2005, Gray and Tanaka identify more than 5,000 cases, while Munoz identifies less than 250.

Since 2004, the office of the Peruvian Ombudsman has been publishing monthly reports on social conflicts (Defensoría del Pueblo, 2009). There are four reasons that make these reports a very good basic source of data. First, the Ombudsman's office has clear criteria for deciding whether an incident is classified as social conflict. Second, the Ombudsman has offices in every region of the country and a clear internal procedure for the selection of reported cases to reduce the risk of bias.⁸⁸ Third, the offices of the Ombudsman report facts rather than opinions.

⁸⁷ Garay and Tanaka compiled articles directly from three national newspapers (La República, El Comercio and Expreso) covering the period 1995–2006. Alternatively, Muñoz used a pre-existing collection of articles that had been compiled weekly by the Centre for the Promotion and Study of Development (DESCO, 2009) through a digest of the same three national newspapers over the period 1980–2005. Finally, CLACSO (Latin American Council of Social Sciences, 2009) publishes an alternative anthology of social conflicts in Peru, which has been compiled monthly since 2000, although this collection seems to rely heavily on the weekly DESCO digest.

⁸⁸ The procedure for the selection of cases involves intervention at regional level; media digests; occasional direct information from actors involved in conflicts; and the final decision of a committee in Lima that guarantees consistency. The authenticity of these procedures was personally cross-checked in interviews with Jairo Rivas (person responsible for the design and direction of the first reports; 2008-003, Lima 05-04-2008); Rolando Luque (director of the Social Conflict Unit of the Ombudsman; 2008-014, Lima 11-04-2008); Raquel Alvarez (representative of the Ombudsman in Pasco; 2008-031, Pasco 24-04-2008); Porfirio Barrenechea (representative of the Ombudsman in Ancash; 2008-09, Huaraz 17-06-2008); and Hernán Cuba Chavez (representative of the Ombudsman in Moquegua; 2008-170, Moquegua 25-08-2008).

Fourth, the office keeps records containing detailed information of individual clashes. Other researchers have used this data set recently (Caballero, 2009; Panfichi, 2009). I decided to do the same, but did extensive work on the raw data to produce more sophisticated and relevant measures of social conflict.

Caballero (2009) and Panfichi (Panfichi, 2009) work with monthly snapshots of the incidence of conflict in the country, but provide no information about the evolution of individual conflicts over time nor any overall measures of the duration or intensity of particular conflicts. Neither do they consistently compare geographical variations in conflict incidence. Using the data from the Ombudsman's reports, I reviewed all 374 social conflicts reported monthly by the Ombudsman from 2004 to 2008, identifying where they occurred, when they started, how long they lasted, and how severe they were according to an objective scale (Table 5.1). I then codified each conflict according to three different classifications: types of main actor involved (indigenous groups, rural population, etc.) (see Figure 5.2); the causes and motivations of the conflict (environment, policies of the national government, etc) (see Figure 5.3); and whether and how it related to mining or to the extractive industries more generally (see Appendix V for the definition of categories and criteria). In the next section I use this information to characterise the conflicts during the research period and determine to what extent they are directly related to mining activities.

Second, I constructed an 'annual conflict incidence index' (ACII) for each of the 25 regions of Peru. First, I counted the number of active and dormant conflicts reported monthly by the Ombudsperson for each region.⁸⁹ Subsequently, I used these data to calculate the index so that the incidence of conflict was comparable between regions: (i) I assigned a weight of three points to each active conflict and one point to each dormant one; (II) I calculated the index monthly and aggregated it to an annual figure; finally; (iii) I normalised the index according to the population of the region to reflect the incidence of conflict per million people. I calculated the ACII for each region of Peru for the years 2005, 2006, 2007 and 2008.⁹⁰ ACII is thus not

⁸⁹ The report classifies conflicts as either active or dormant depending on their level of activity during the month of the report. A conflict has to be without continuously dormant for a year before it is removed – even if not formally resolved – from the data.

⁹⁰ 2004 data were excluded, as inconsistencies in the methodology of the initial reports were detected. I also excluded Callao region from my analysis, as it has now been absorbed into the metropolis of Lima, thus, there were no individual conflicts reported in Callao itself between 2005-2008. Moreover, the ACII scores are only meaningful in the context of comparison over

a simple calculation of the number of conflicts relative to population, but also incorporates a measure of the duration of conflicts.

I incorporated the ACII into a comprehensive nationwide dataset including also welfare, economic, budgetary, and political indicators for the 25 regions of the country for the period 2001–2008. I use this dataset in Section 5.3 to analyse the factors influencing the variation in the ACII across the different regions.

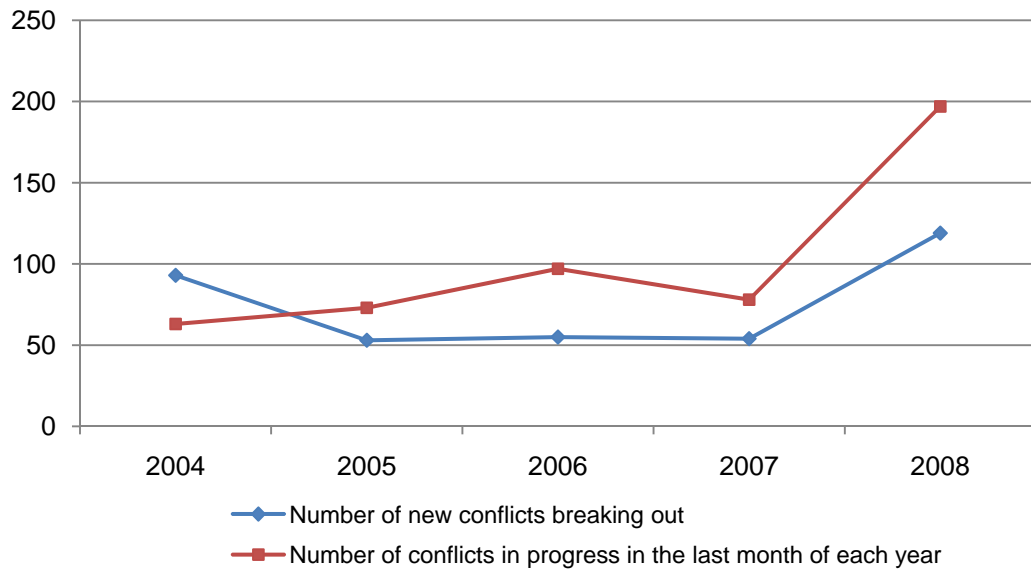
5.2 Main features of social conflict in Peru (2004-2008): the growing importance of mining

Despite the core position of social conflict in current Peruvian politics (The Economist, 2008), there is little systematic understanding of (i) who the actors are; (ii) their motives; (iii) how long conflicts last; (iv) how intense they are; and, finally, (v) whether there is any significant link/correlation between all these factors. My aim in this section is to analyse these features of conflicts in Peru and to determine how they changed from 2005-2008.

I discovered that, from 2005–2007, the number of new conflicts remained stable each year but the number of unresolved conflicts increased (Figure 5.1). However, new conflicts directly related to mining increased threefold and constituted 56 per cent of all new conflicts in 2007 (Table 5.1). The unusually large number of new conflicts in 2008 seems to represent the eruption of a more generalised wave of protests (Tarrow, 1998).

space and time within Peru; they are not expressed in units that could be used to make rational comparisons with other countries.

Figure 5.1 Comparison of the number of new conflicts breaking out year by year with those reported to be in progress in the last month of each year (2004–2008)



Source: (Defensoría del Pueblo, 2009).

Table 5.1 also shows that there was no difference between the intensity of mining and non-mining conflicts, but that the former tended to last significantly longer. Thus, two factors lay behind the generalised perception of the growing incidence of mining-related conflicts: they were more frequent among new conflicts and they last longer. The stock of unresolved mining-related conflicts is building up.

Table 5.1 Number, intensity and duration of social conflicts in Peru, by year of outbreak and connections with mining

	2004		2005		2006		2007		2008		Total 2004–2008	
	Mining	Other	Mining	Other	Mining	Other	Mining	Other	Mining	Other	Mining	Other
Number of conflicts breaking out annually	9	84	9	44	18	37	30	24	48	71	113	261
Average intensity^a of conflicts each year*	3.9 (1.4)	2.6 (1.3)	2.7 (0.5)	2.6 (1.1)	2.6 (1.4)	2.8 (1.5)	2.7 (1.2)	2.7 (1.4)	1.6 (1.2)	1.4 (0.7)	2.3 (1.4)	2.3 (1.3)
Average duration^b of conflicts breaking out each year (months)*	27.1 (17.2)	10.9 (12.1)	27.6 (14.0)	8.2 (7.7)	12.7 (8.8)	6.8 (6.8)						

* Standard deviation in brackets.

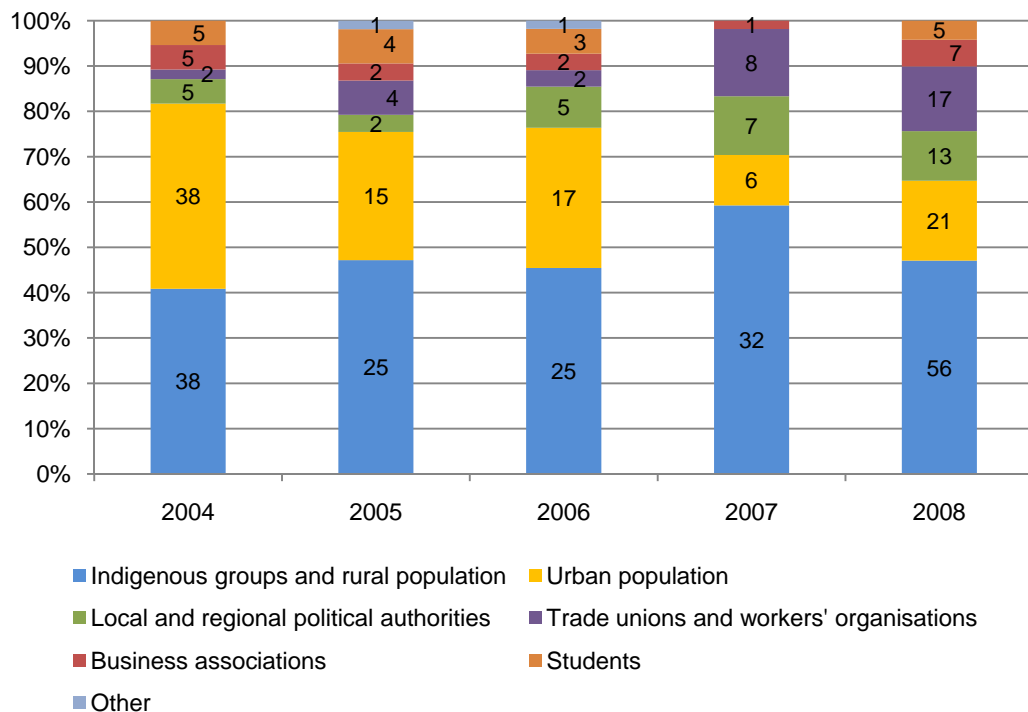
^a Each conflict is gauged according to its most severe manifestation on a scale ranging from 1 to 5: (1) popular mobilisation that threatens to disrupt public services; (2) disruption of public services, and/or blockade of roads and other basic infrastructure, and/or interruption to local governance, and/or confrontation with the police, without injuries being sustained; (3) destruction of public infrastructure or other material assets, and/or cases of minor injury, and/or occupation of private premises; (4) serious endangerment to life or physical well-being, including hostage-taking; (5) Serious injuries or deaths.

^b The duration of conflicts breaking out in 2007 and 2008 have not been taken into consideration because a high percentage of them were reported as either still being active or as dormant at the end of 2008.

Source: (Defensoría del Pueblo, 2009).

Most of the active conflicts during 2004–2008 were located in rural areas. The main actors were indigenous communities and local populations, although local and regional governments played an increasing role (Figure 5.2). However, the ruralisation of conflict did not mean localisation. Changes in the motives for conflict are summarised in Figure 5.3. Strictly local issues relating to the actions of sub-national governments became less significant. By contrast, issues concerning central government policy, the environment and the behaviour of mining companies became more prominent. The accumulation of (longer-lasting) mining conflicts was one aspect of the overall conflict situation in Peru. Another was the apparent ruralisation of conflict because of the increasing focus on mining. The third was a relative shift in focus, from issues about the behaviour of sub-national authorities to issues concerning national policies, the environment, behaviour of companies, and territorial boundaries. The main local actors in these rural conflicts became increasingly disconnected from national political parties (Chapter 3).

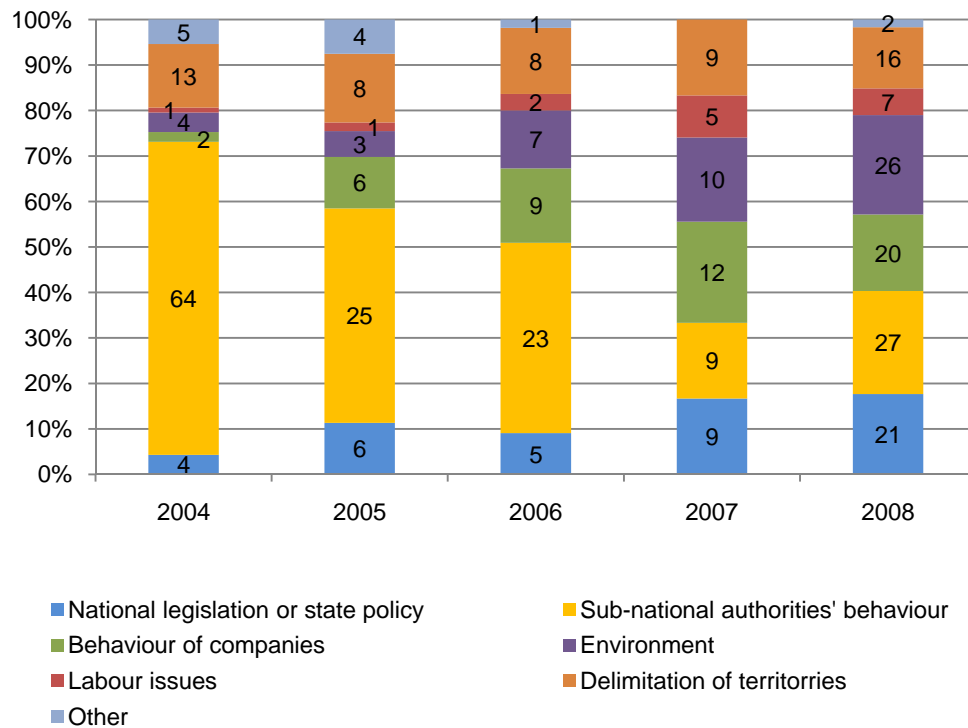
Figure 5.2 Conflicts by principal actor 2004–2008 (number of conflicts and percentage of total)



Notes: total number of conflicts indicated in columns.

Source: Defensoría del Pueblo; adaptation by the author.

Figure 5.3 Conflict by motive 2004–2008 (number of conflicts in each category and percentage of total)



Notes: total number of conflicts indicated in columns.

Source: Defensoría del Pueblo; adaptation by the author.

5.3 What factors explain regional and temporal variations in conflict?

Table 5.1 makes a clear distinction between conflicts directly related to mining and those that were not, by looking at the overt causes of each case. This procedure is to some degree problematic because it does not take into consideration the possibility that mining might cause or exacerbate existing conflicts in indirect or relatively invisible ways. For example, in addition to the conventional claims about environment damage and changes in livelihoods, mining could increase social conflict by fostering migration and changes in social relationships, or by promoting political competition, especially over access to and control of the rents that have increasingly been re-directed to local governments in mining regions. Conversely, it is also possible that conflicts that appear to be about mining might also be caused or exacerbated by non-mining factors.

Another way of examining causation is to see how far variations over time and space in the incidence of conflict – as measured by my ACII – correlate in a statistical sense with various direct and indirect measures of mining and its

consequences. I do that in this section using panel data for each of Peru's 24 regions for each of the years 2005–2008.⁹¹

The results confirm the relationship between conflict and mining, but they also show that the volume of *canon minero* transfers to sub-national governments of the regions is highly associated with an increase in conflict in the period 2005-2008. These findings complement the conventional interpretation of the relationship between mining and conflict, and, significantly for the aim of this thesis, they reveal that the NEIS not only fails to reduce conflict, but seems to have caused an increase.

I use multiple linear regression to explain variation of ACII across Peruvian regions.⁹² The ACII varied widely among the Peruvian regions: taking the figures for the years 2005-200 collectively, the average ACII for the whole country was 277, but this varied from zero in Tumbes region to 1,956 in the mining region of Moquegua. I then tested hypotheses for the factors that were most likely to be associated with differences among the regions in terms of the incidence of conflict. Due to the relatively small number of observations in the dataset I kept the models as simple as possible by incorporating a reduced set of variables for each model. In the first set of models I tested the influence of poverty in combination with four mining-related variables that capture different ways mining may directly or indirectly cause conflict:⁹³

- (i) Percentage of the regional population below the poverty line in terms of income measured against a region-specific variable demarcation of poverty.
- (ii) Annual *canon minero* transfers per capita at current values, as a proxy for mining rent.⁹⁴ This variable directly accounts for the total amount of *canon*

⁹¹ I excluded Callao from the analysis.

⁹² I use a Random Effects (RE) panel regression model to analyse the panel data set. This method is the best possible way of dealing with the problems of the serial correlation and heteroskedasticity of the panel. I ruled out the use of the more conventional Panel Corrected Standard Errors (PCSE) models to correct for serial correlation because the number of regions in the panel is very much larger than the number of years (Beck, 2001; Beck & Katz, 1995). In the case of panel with this type of structure ($N > T$), Wooldridge (2002:490) proposes the use of RE models to solve the problems of serial correlation. Additionally I compute the regression with robust standard errors adjusted for clustering on regions to correct heteroskedasticity.

I use the XTREG command in STATA with the option 'r' to correct these problems.

⁹³ See appendix VI for a complete description of variables.

⁹⁴ Year-by-year regional populations have been calculated taking 1993 as the base year and using the population growth rate between 1993 and 2007 for the interpolation.

minero transfers accrued by the local government and municipalities of each region. However, owing to the formula for distributing the *canon*, the figures also strictly correlate with the profits of the mining companies operating in the region.

- (iii) Percentage of mining production in relation to total regional GDP at constant 1994 prices, as a proxy for the level of mining activity. This indicator relates to factors directly linked to physical activity such as the actual environmental impact of an operation.
- (iv) Percentage of the total area of the region for which companies hold mining rights, as a proxy for future prospects for mining activity. The process of granting mining rights to the companies involves a sequence of administrative events that rarely have an immediate impact on the ground. However, they generate both expectations and uncertainties when the population in the affected regions knows that these rights have been granted.
- (v) Regional level investment by mining companies in the exploration and construction of new mines and the expansion of existing operations is the best available proxy for the physical expansion of mining activities. This indicator captures the actual expansion of mining activities on the ground and the related impact on the control of land and water.

To test change over time, I used two different and complementary methods. First, I introduce year dummies into the models to detect significant variations due to time-specific factors. Second, I undertook a year-by-year OLS cross-sectional regression analysis to study the evolution of significant variables and coefficients over time. To prevent extreme values driving the results, I calculated the log of annual transfers, mining GDP and the ACII variables.

The figures in Table 5.2 summarise the results of five different models. The first model explains for 35 per cent of the variance in the ACII. Two variables, the incidence of poverty and the level of per capita *canon minero* transfer positively correlate with the ACII in a statistically significant fashion. Models 2 and 3 continue controlling for the level of poverty but substitute the per capita *canon* transfers for two other mining-related variables that capture ‘mining expansion’: the level of investment by mining companies in the region, and the percentage of the total area in the region for which companies hold mining rights. Both variables are also

statistically significant when tested independently, although the level of mining investment only at the 10 per cent level. Moreover, the explanatory power of these two models is slightly lower than the first model. These three mining-related explanatory variables lose statistical significance when they are jointly introduced into the model. A high degree of collinearity among them is responsible for this effect.⁹⁵

Clarification of the relationship between these proxies for ‘mining expansion’ and the amount of *canon* transfers is crucial to a better understanding of the underlying process. In theory, the three variables capture quite different processes. However, the mechanism for the distribution of the *canon minero* transfers establishes a link between the three. *Canon minero* transfers to local and regional governments are based on the previous year’s profits for the mining companies operating in the region.⁹⁶ Such profits have a twofold influence. On the one hand, they tend to boost company investment at the site of the mine and in adjacent locations in subsequent years.⁹⁷ On the other hand, the existence of large, highly profitable operations in a particular region is an indicator of mineral richness, which attracts the attention of other companies and increases the number of mining rights allocated in that region. Thus, I argue that in the context of the increase of mineral prices, these two variables – the level of investment by mining companies and the area for which companies hold mining rights – are themselves a consequence of the increase in mining profits generated in the region. As the *canon* transfer variable is a direct proxy for profits, I decided to keep it within the basic specification to test other explanatory variables.

⁹⁵ Pearson correlation coefficients for these variables:

Canon minero transfers – mining investment in the region = .83

Canon minero transfers – area under mining rights = .62

Area under mining rights – mining investment in the region = .68

⁹⁶ *Canon minero* transfers account for 50 per cent of corporate income tax, which in turn is 30 per cent of a company’s annual profits.

⁹⁷ Two methodological notes:

First, in the mining industry, a flow in the other direction – from more investment to greater profit in subsequent years – does not apply because profit is heavily dependent on mineral prices, which are quite difficult to forecast in the short term.

Second, the temporal relationship between profit and investment necessitates a lapse of a year in the investment variable. However, as the *canon minero* transfer in any given year is based on company profits for the previous year, both variables – transfer and investment – are already contemporaneous.

In contrast to the variables discussed so far, the level of mining activity captured by that of ‘mining as a percentage of total regional activity’ does not have statistical significance in any of the three models. This reduces the importance of the mere increase in mining activity – and its associated negative environmental impacts – as a determining factor for the escalation of conflicts. This finding is consistent with more direct evidence: in mining regions such as Cajamarca, Tacna, Moquegua and Cusco where conflict has increased although the level of mining activity has not changed significantly in recent years.

To summarise, the first three models (Table 5.2) reveal that in addition to the incidence of poverty, there are four other factors – all associated with the amount of mining rent – that may account for variance in conflicts among regions: (i) the redistribution of rent at regional and municipal level through *canon minero* transfers; (ii) company profits in the previous year; (iii) the expansion of mining operations through the investment of a portion of the profits; and (iv) the expectation that new mining companies will come into the region. In the next chapter I discuss the possible mechanisms through which these factors increase the incidence of social conflict in mining regions.

Model 4 controls for temporal variation through the introduction of time dummies. This model explains a larger proportion of the variation in the ACII across regions – 49 per cent–, while the two variables previously relevant remain statistically significant. However, in the case of the 2008 data, the time dummy itself is statistically significant. This implies that there were other factors associated with this year that are not incorporated into the model, but which are also important in explaining the variation in the ACII.

Estimates of model 5 help clarify the underlying dynamics. They reveal the changing relative importance of the two main explanatory variables over time. In 2005, the level of poverty was the only statistically significant independent variable. However, in 2006, the levels of poverty and per capita *canon minero* transfer were both associated with the incidence of conflict in a statistically significant manner. The same was true in 2007, but by now – according to the regression coefficients – the level of *canon minero* transfers appears to be the more significant driver of conflict.

Table 5.2 Regression of poverty levels and mining-related variables on the incidence of conflict by region (2005–2008)

Dependent variable: Log of per capita annual conflict incidence index (ACII)								
Time frame	Panel data 2005–2008	Panel data 2005–2008	Panel data 2005–2008	Panel data 2005–2008	Year by year			
					2005	2006	2007	2008
Model specification	Model 1 Random-effects GLS regression ^a	Model 2 Random-effects GLS regression ^a	Model 3 Random-effects GLS regression ^a	Model 4 Random-effects GLS regression ^a	Model 5 OLS (rse)			
Constant	.745 (.245)***	.896 (.273)***	.689 (.272)**	.337 (.241)	.241 (.404)	.353 (.329)	.517 (.331)	1.283 (.438)***
Percentage of poverty	.014 (.004)***	.012 (.004)***	.012 (.004)***	.018 (.004)***	.026 (.006)***	.018 (.004)***	.014 (.005)***	.010 (0.006)*
Mining as percentage of GDP (constant prices)	-.011 (.009)	-.006 (.010)	-.001 (.008)	-.007 (.008)				
Log of <i>canon minero</i> per capita	.311 (.105)***			.228 (.111)**	-.153 (.122)	.248 (.094)**	.328 (.094)***	.236 (.101)**
Log of investment in mining activities		.237 (.126)*						
Area under mining rights			.028 (.006)***					
t ₂₀₀₆				.156 (.143)				
t ₂₀₀₇				.253 (.171)				
t ₂₀₀₈				.721 (.195)***				
R ²	.35	.26	.29	.49	.57	.58	.56	.36
N	96	96	96	96	24	24	24	24

^a Standard errors are adjusted for clustering in regions;

Notes: standard errors in parenthesis; *** significant at 1% level; ** significant at 5% level; * significant at 10% level.

The degree of statistical link between level of *canon minero* transfer and incidence of conflict increased markedly over the period 2005–2007, with the level of poverty playing a steadily diminishing role (Figures 5.4 and 5.5). However, in 2008, as model 4 reveals, there was a shift in this trend. Although the levels of poverty and per capita *canon minero* transfer (i.e. mining rent) remain statistically significant and explain a notable degree of variation in the ACII, the regression coefficients and the level of significance show that the two variables lose explanatory power in comparison with previous years. In the same fashion, the differences in the intercept coefficients indicate a general rise in the incidence of conflict consistent with the descriptive statistics in Table 5.1 revealing a general increase in the level of conflict in the country.

Figure 5.4 Correlation between *canon minero* transfers per capita and ACII at regional level in the period 2005–2008

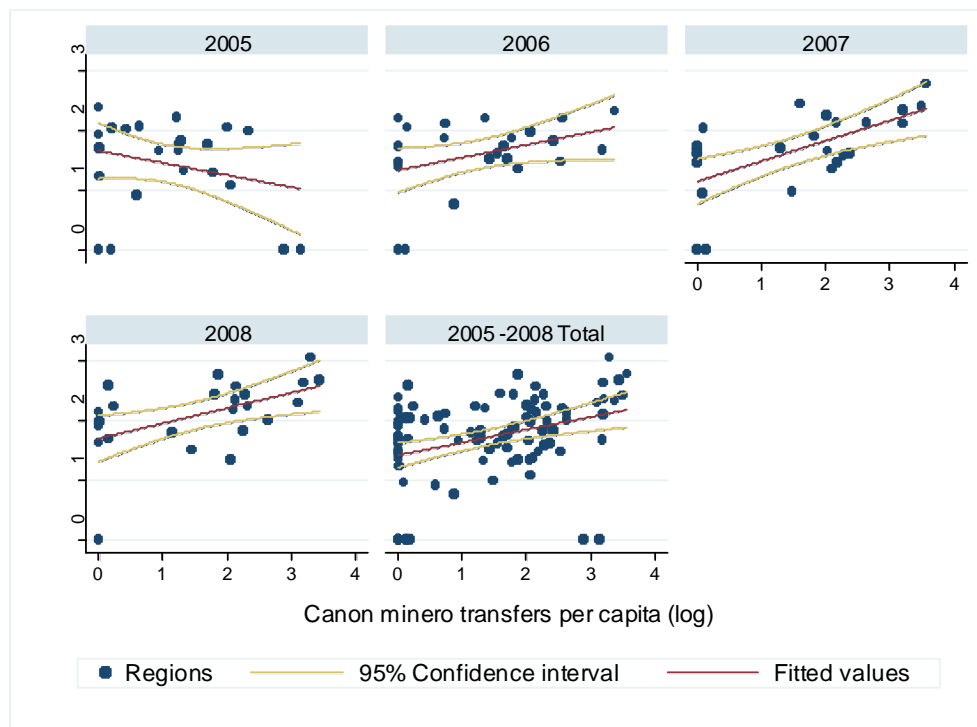
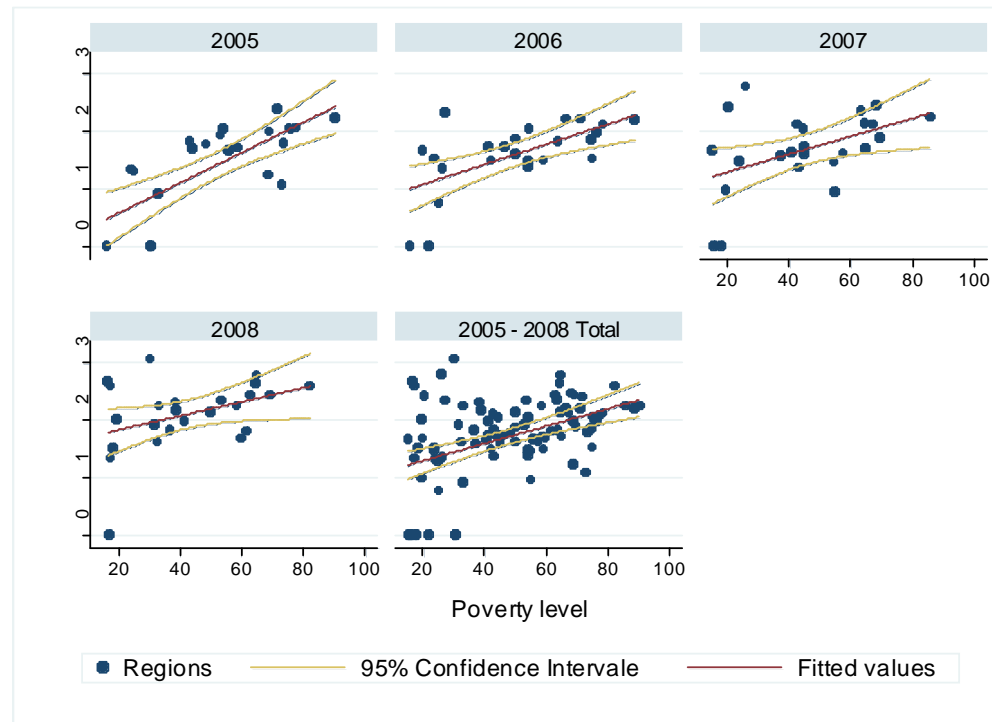


Figure 5.5 Correlation between poverty and ACII at regional level in the period 2005–2008



To complement the analysis and to test the robustness of the results I introduced other variables into the basic model. They are proxies for alternative factors that might influence the incidence of conflict. I have clustered these variables in three thematic groups that I tested independently to maintain the simplicity of the models:

- (i) Type of region: dummy variables for four different types of region. I modified the conventional trio of natural Peruvian regions – coast, Andean highlands and Amazonian lowlands – to include a fourth mixed terrain type comprising both coastal and mountainous areas.
- (ii) Features of the population: (a) dummy for indigenous populations of above 20 percent; (b) percentage of the total population who migrated to the region between 2003 and 2007; (c) percentage of the economically active population for whom agriculture is the main occupation; and (d) percentage of the economically active population with mining-related jobs. These act as proxies for the degree of social change, economic dynamism, and the social importance of each economic sector, respectively.

- (iii) Political variables: percentage of votes for the winning party in regional elections, as a proxy for the legitimacy of the regional government. In addition, I introduced dummies for (a) electoral participation in regional elections, as a proxy for institutionalised political mobilisation; and (b) support for a radical candidate in the first round of the presidential elections of 2006, as a proxy for ideological position.

The figures in Table 5.3 summarise the results of these three complementary models. As in the previous models, the level of mining activity captured by that of ‘mining as a percentage of total regional activity’ at constant prices does not have a consistent effect on the variation in the incidence of conflict across regions. Meanwhile, poverty and *canon minero* transfers remain strongly significant in all three models, and their coefficients and standard errors remain reasonably stable, supporting the robustness of the previous results. However, the rest of the variables included in these models do not have any statistically significant effect.

Model 6 shows that the estimates for the main variables remain stable when controlled for regional dummies. This means that independent of the type of region, the incidence of conflict correlates to poverty levels and the amount of *canon* transfers per capita accruing to the sub-national governments of the region. This reduces the possibility that other underlying structural features of the regions drive the correlation between the two variables and the incidence of conflicts.

Model 7 does not indicate any positive significance of variables linked to specific features of the population. The percentages of Indigenous population and the workforce in agriculture control for some important general features of the regions. Neither have any effect on the incidence of conflict. The other two variables included in this model – the level of migration into the region and the percentage of people working in the mining sector – help to test alternative ways mining might influence the incidence of conflict. They are proxies for the effect of mining-induced social change and potential miners’ strikes respectively. These two variables are not statistically significant either.

Finally, the political variables of model 8 are also unimportant. It is worth noting that even support for the radical candidate in the 2006 presidential elections has no

statistical significance, throwing a lot of doubt on the government's claim that radical ideologies are frequently the driving force behind civil unrest.

Table 5.3 Complementary regression models of *canon minero* transfers, poverty levels and other variables on the incidence of conflict by region (2005–2008)

Dependent variable: Log of per capita annual conflict incidence index (ACII)			
Time frame	Panel data 2005–2008	Panel data 2005–2008	Panel data 2005–2008
Model specification	Model 6 Random-effects GLS regression ^a	Model 7 Random-effects GLS regression ^a	Model 8 Random-effects GLS regression ^a
Constant	.591 (.282)**	.594 (.373)	.453 (.454)
Mining as percentage of GDP (constant prices)	-.013 (.009)	-.010 (.009)	-.011 (.010)
Log of <i>canon minero</i> per capita	.425 (.106)***	.321 (.127)**	.302 (.129)**
Percentage of poverty	.013 (.006)**	.016 (.007)**	.017 (.006)***
Region _{Amazon}	.009 (.246)		
Region _{Andean}	.395 (.244)		
Region _{Mix Andean-Coastal}	-.108 (.269)		
Indigenous population above 20%		-.063 (.214)	
Migration to region in 2003–2007 above 12%		.154 (.234)	
Percentage of workforce in agriculture		.030 (.196)	
Percentage of workforce in mining		-.090 (.194)	
Electoral turnout higher than 85%			.133 (.167)
Radical vote above 50%			-.170 (.240)
Percentage of vote captured by winner in regional elections			.003 (.008)
R ²	.37	.36	.37
N	96	96	96

^aAll standard errors are adjusted for clustering in regions

Notes: standard errors in parenthesis; *** significant at 1% level; ** significant at 5% level; * significant at 10% level

The description of conflicts in Section 5.2 and the multivariate analyses in this section provide a consistent interpretation of the growing incidence of conflict undermining the stability of Peruvian polity. At the beginning of the period under study, conflict correlated with poverty, but the increase in mineral prices and the associated dramatic increases in rent and *canon minero* have tended to multiply the incidences of conflict in mining regions receiving large amounts of transfers. The quantitative analysis downplays the importance of other possible causes that appear in the literature. Thus, neither the level of mining activity in the region nor mining-induced social changes have any statistically significant effect on the incidence of conflicts. Moreover, although the variables relating to the expansion of mining activities are statistically significant, I argue that the effect of mining expansion at regional level is a consequence of the generation of rents in the region. These results show that the implementation of the NEIS did not reduce the incidence of conflicts. On the contrary, it seems to have increased them.

These powerful results present a different picture from what the government, mining companies and social movements currently believe. However, I did not just rely on the analysis presented in this chapter of data derived from the Ombudsperson's reports. I undertook extensive field research in three mining regions to look in more detail at social conflict. The next chapter presents the results. The field research confirms the importance of mining rents and *canon minero* transfers in stimulating conflict, and reveals the channels and mechanisms through which this happens.

Chapter 6

How the NEIS multiplied conflicts: a local perspective

On 8th of January 2010, I received a rather unusual e-mail. The public relations manager of Southern Peru Copper Corporation (SPCC) had included in his distribution list a personal reflection on *Avatar*, the recently released James Cameron movie. He appeared to be incensed that the film would further damage the already poor reputation of the mining companies. Therefore, he tried to counteract this perniciousness by pulling to pieces the idea that an idyllic planet like Pandora, the world of the Na'vi people where all the living creatures are symbiotic, nurturing a benign and holistic web of life, whose survival is threatened by an evil mining company trying to exploit a valuable mineral was at all plausible. Thus, he added Hollywood with its 'wild imagination' to the usual enemies of the mining industry. His arguments sounded both desperate and as naive as Pandora itself. But his sense of outrage prompted me to immediately see the film.

Although my uncritical side enjoyed the exuberance of the special effects, and I could not avoid remembering the struggle of my Awajun friends mentioned in Chapter 1, I had to admit that *Avatar* was a fantasy and the plot disappointingly clichéd. However, my dissatisfaction with the film stemmed from a different point of view from that of the corporate e-mail. When I started working with the Awajun people in 1991, my friend Santiago told me that portraying the indigenous people as collectively virtuous and their culture as completely harmonious was one of the worst forms of racism. *Avatar* exhibits a similar kind of prejudice, in that the Na'vi have been depicted as collectively virtuous, but helpless and in need of the intervention of an external saviour – coming of course, from our own dominant Western Civilisation – to defend their world.

There are close parallels between some interpretations of conflicts around mining in Peru and the plot of *Avatar*: the tendency to view resistance to mining as spontaneous defence, untarnished by material motivation, politics or strategic calculation of an indigenous life-style and the natural environment.

During my field research I witnessed tragic cases of environmental disaster and also genuine popular struggles against the construction of new mines due to the

fear of losing livelihoods and being left worse off (Section 6.2). These conflicts are highly important because they shape the features of all conflicts that have been labelled 'mining-related'. The existing literature gives the impression that most conflicts around mining in Peru are of this kind. In contrast, I wish to argue that these *Avatar*-type conflicts are neither the only type of contentious actions nor are they now the most numerous. Instead, the implementation of the New Extractive Industry Strategy (NEIS) has generated more complex disputes over the distribution of the rent generated by the mines.

As I explained in the introductory chapter, the issue of mining rents is highly political. Rents are economic surpluses that tend to attract the attention of (competing) rent-seekers who employ political means to get a share. After the implementation of the NEIS, peasant communities, municipal and regional authorities, regional movements, and 'defence fronts' in mining areas engaged in social conflict to gain political leverage in the negotiations over the distribution of the mining rents. In addition to the 'Avatar-type', my field research led me to identify two other types of conflict directly related to disputes over rents. I have labelled the first 'enhancing bargaining power', whereby peasant communities seek to obtain a share of mining rents directly by claiming some form of economic compensation for the adverse impact of mining. The perception that government policies allowed the companies to retain an unfair share of the profits, the increasingly influential role the state has granted to the companies in the mining regions, and the companies' use of Corporate Social Responsibility (CSR) schemes provide the communities with incentives for making claims against the mining companies (see Section 6.3). 'Seeking decentralised revenue', is the second type of 'distributional' conflict. It pits citizens, authorities, and administrative jurisdictions against one another around access to and use of natural resource revenues transferred from central government (Section 6.4). These two new types of conflict accounted for the majority of new mining conflicts during the period 2005–2008.

In the following sections, I first outline the typology of conflict that I developed (Section 6.1). Second, I review the defining features of 'anti-mining' conflicts – those in which local populations challenge the establishment of new mining operations or the expansion of old ones. I present the main features of these conflicts as the benchmark for comparison with the new types of conflict (Section 6.2). Third, I use examples from Ancash, Pasco and Moquegua to illustrate how the

peasant communities closest to the mines use the narratives and protest repertoire of the anti-mining movement to improve their bargaining power with the mining companies and increase their access to mining benefits (Section 6.3). Fourth, I explain how *canon minero* transfers have increased the incidence of conflict in mining regions through three different mechanisms: (i) by creating unrealistic expectations that municipal and regional authorities cannot fulfil; (ii) by pitting different levels of government against each other in an attempt to divert popular anger; and (iii) by promoting the confrontations in municipalities and regions that claim jurisdiction over mineral deposits and sources of water (Section 6.4). Finally, I draw some conclusions about the relationship between social conflict and mining.

6.1 A typology of mining-related social conflicts

From my field research, I found that three different types of mining conflict coexisted in the period 2004–2008. First, there were well known conflicts in which the local population opposed mining on the grounds of its negative impact on the environment and their livelihoods. Second, there were cases in which local communities adopted conflict as a tactic to gain bargaining power and negotiate more generous economic compensation from the mining companies. And third, conflicts caused by the *canon minero* transfers. My argument is that the implementation of the NEIs increased conflicts of the second and third types.

As Table 6.1 illustrates, I have constructed my typology on the basis of claimants' intentions. Obviously, this kind of representation is a simplification, and some specific cases cannot easily be allocated to one category or another – a standard problem in conflict analysis. However, I believe the analytical value of distinguishing between types of conflict outweighs the limitations of the procedure because it allows a more detailed analysis of causality through the comparison of the different types.

Table 6.1 Typology of social conflicts in Peruvian mining regions

Conflict Type	Intention	Actors
Type 1 Anti-mining movements	Attempts to stop the exploitation of new mines, or the expansion of currently operating ones.	Principal: Mining companies and peasant communities. Others: National government, ombudsman, national and international NGOs.
Type 2 Enhancing bargaining power	Strategy for the preparation of a negotiation process with the company regarding compensation.	Principal: Mining companies, peasant communities, and population of the municipalities close to the mines. Others: Regional representative of the ombudsman.
Type 3 Seeking decentralised revenue	Control and use of <i>canon minero</i> transfers.	Principal: Defence fronts, social organisations, and different levels of government. Others: Rarely present.

In Peru, there is a general perception that in mining conflicts, peasant – and sometimes indigenous – communities confront mining companies. The Ombudsman’s report on social conflicts places all of them in a single category labelled ‘socio-environmental’ conflicts (Defensoría del Pueblo, 2009). I consider that this classification is not analytically helpful because it includes at least two different types of conflict: ‘anti-mining’ (Type 1) and those seeking greater ‘bargaining power’ (Type 2). These two types of conflict differ in the intention of the claimants and the degree of involvement of different actors. Conflicts of the first type are concerned with companies’ actual or attempted appropriation of local resources, especially land, water and unpolluted local environments and the attempts of peasant communities to resist the expansion of mining. Although communities and companies are the principal actors, a wide array of other actors participate in the conflict in support of one or other, or in trying to broker agreements.

Conflicts seeking greater bargaining power (Type 2) are more tactical. Peasant communities used social conflict as a means to open up negotiations with the companies regarding increased financial compensation for the use of land and

water, corporate investment in social projects, and employment opportunities in the mines. They know that beyond the legitimacy and fairness of their claims, their real bargaining power lies in their capacity to disrupt the work of the mines and to tarnish the reputation of the companies. The failure to differentiate between these two types of conflicts leads to erroneous diagnoses of the problems.

The third category of conflicts has generally been overlooked. I argue that in regions receiving a high volume of *canon minero* transfers, political disputes over the control and use of these financial resources have generated a specific type of conflict that I label 'seeking decentralised revenue' (Type 3). This type differs from the anti-mining conflicts both in terms of the actors involved and the motives for the protest. First, there is a wider set of actors who initiate and get involved in these conflicts - local communities, the urban population in small towns, and local and regional political authorities. Second, their most explicit claims are not directly related either to the mining activity itself or to the behaviour of the companies. Frequently, discontent over mismanagement by local authorities, opposition to national government policies, disputes among mayors and regional presidents over unfulfilled promises, and claims about the delimitation of territories trigger protests. As Section 6.4 shows, these conflicts were directly related to the control and distribution of *canon minero*.

In the next sections I unpack the features of the three types of conflict. This will provide a better understanding of why and through which processes the implementation of the NEIS in combination with a mining boom has created the conditions ripe for the escalation of conflict in mining regions.

6.2 Anti-mining conflicts: showing the way

The success of the opposition to mining in Tambogrande (Piura) and Quilish Hill (Cajamarca) captured the interest not only of scholars (see Section 4.2), but also of people in other parts of the country affected by the extraction industries. In Tambogrande – a municipality close to the coastal city of Piura – the Canadian company Manhattan Minerals spent five years (1998–2003) and more than USD 60 million on a project to exploit a rich polymetallic deposit through open cast mining. The operation demanded the relocation of the whole population of Tambogrande. Opposition from the inhabitants of the town, in alliance with peasant organisations

and wide sectors the population of Piura, forced the company and the government to drop the plan (Paredes, 2008).

In Cajamarca region, the Yanacocha Company operates the largest gold mine in Latin America. Yanacocha began mining in 1993 and claims to be at the forefront of the ‘new mining’ industry on account of its consideration for indigenous people, its environmental responsibility and a genuine concern for local development.⁹⁸ However, the enterprise has been plagued by recurring conflicts, mostly opposition to the exploitation of Quilish Hill. Peasant communities and the population of Cajamarca city claimed that the operation would jeopardise the water supply for the regional capital and impede the development of agriculture, the main economic activity of the region. After five years of recurring conflict and protracted negotiations, in November 2004 Yanacocha gave up exploiting the Quilish Hill gold deposit (Lingan, 2008).⁹⁹

These two cases are ‘all-or-nothing’ conflicts in which peasants and sectors of the urban population united to oppose mining activities. Similar examples include the Rio Blanco project where local opposition has been suppressed and the area militarised (Bebbington, 2007);¹⁰⁰ and to a lesser extent, opposition to the Condorhuain project near Huaraz.¹⁰¹

These heavily publicised conflicts mark the recent history of mining in Peru. They have shaped the official reaction that led to the implementation of the Peruvian version of the NEIS. Moreover, although conflicts of this type are infrequent, they are important testing grounds for the narratives, strategies and repertoires of

⁹⁸ Yanacocha is a joint venture between Newmont (USA), which holds 51.35% of shares; Buenaventura (Peru), owning 43.65%; and the International Finance Corporation (IFC), an arm of the World Bank, which holds the remaining 5%. The ownership structure of this joint venture has remained stable since its foundation.

⁹⁹ However, this renunciation did not resolve the dispute between Yanacocha and the peasant communities living around the operations; on the contrary, the conflicts merely diversified (Lingan, 2008).

¹⁰⁰ The Rio Blanco deposit is the main asset of the London-based Monterrico Metals Company. The Chinese Zijin Mining consortium paid USD 185.4 million for the acquisition of Monterrico in April 2007. The new owners are fully committed to developing one of the top 20 largest copper mines in the world (Monterrico Metals, 2009).

¹⁰¹ Barrick, the Canadian gold company, tried to extend its Pierina operation (Ancash) to Condorhuain, a hill close to the city of Huaraz. However, following opposition from the peasant communities downstream to the planned mine, Barrick abandoned the project. Protesters claim that they stopped the expansion, while Barrick says that exploratory tests did not reveal profitable reserves.

contestation that people have subsequently employed elsewhere. Thus, investigation of this type of conflict provides a way to explore both the continuity and the innovative aspects that emerged along with the other two types of conflict during the period 2005–2008. I shall examine the main features of type I anti-mining conflicts under the following headings: (i) actors and their motives, (ii) mobilisation structures and alliances, (iii) narratives of conflict, (iv) adaptation of the repertoire of protest, and (v) influence of the NEIS.

6.2.1 Actors and motives

Company announcements about the discovery of an important mineral deposit or the publication of its plans to exploit one already identified have usually caused a shock at the grassroots level. However, actors differ in their perception of its significance. In the case of Tambogrande, Cajamarca and Majaz, the peasants – who make up the majority of the population around potential new operations – deem mining to be a serious threat to their livelihoods. In sharp contrast, the state and local elite see it as an exceptional opportunity to profit from an increase in tax revenue and to reinvigorate the regional economy.

The peasants perceived agriculture to be incompatible with mining in these three locations. In the valleys of Cajamarca and the districts around the Rio Blanco deposit, the benign climate and fertility of the land fostered a profitable agrarian economy that constituted the principal means of livelihood for the majority of the population. In both cases, the mineral deposits were located in valleys where headwaters were located and the projected massive open pit mines posed a substantial threat to the water supply necessary for farming. In Tambogrande, the proposed gold mine would have occupied the centre of a fertile valley hitherto devoted to export-oriented agriculture (Paredes, 2008:272-275).

Thus, the peasants had good reason to resist the mining ventures and, in addition, had accumulated sufficient knowledge about the probable impact of the exploitation around Yanacocha to distrust official promises about the benefits that mining could bring to agriculture. But the concerns of the peasantry are usually insufficient in themselves to incite significant mobilisation. Indeed, peasants' grievances frequently remain unresolved. Thus, the question arises as to what were the

contributory factors that tipped these grievances into broad-based mobilisations that were able to challenge the important mining investments.

The history of these examples of anti-mining conflict reveals three crucial factors in the initiation and sustaining of mobilisation against mining: (i) the existence of a consistent organisational nucleus and the forging of alliances; (ii) the composition of an appealing and flexible narrative; and, (iii) the adaptation of the repertoire of contestation.

6.2.2 *Mobilisation structures and alliances*

The formation of widely accepted and locally embedded organisational structures has been critical to the success of mobilisation. In Tambogrande, the Front for the Defence of Tambogrande made collective action possible in the early stages of the confrontation by coordinating three peasants communities, and peasant water management committees and associations (Paredes, 2008). In Cajamarca the peasant communities and the powerful *rondas campesinas* (peasant defence committees) proved invaluable as vehicles for mobilisation (Lingan, 2008).¹⁰² These nuclei provided legitimacy, organisational resources, and clear leadership to galvanise wider alliances.

This initial power base was still not sufficient to generate mass social mobilisation. After initial confrontations between the protesters and the companies – and the state apparatus – claimants realised that they needed to gain wider popular support for their cause if they were to pursue it in earnest. At local level, coordination with, and the support of the Catholic Church – or at least sympathetic elements of it – was an important mechanism to gain social legitimacy and the sympathy of a wider section of the population in the region. (McAdam et al., 2001:145). At the same time, coordination with an array of national and international organisations reinforced the challengers' position through an increase in technical ability and negotiation leverage (Bebbington, Humphreys Bebbington et al., 2008; Paredes, 2008). These alliances reinforced local mobilisation capacity and generated external pressure on both the companies and the national government.

¹⁰² Traditional rural organisations originally set up to prevent cattle rustling. Later, they started to play an important role in settling disputes among villagers, providing security to the population and frequently deputising for the ineffectual leadership of peasant communities (Diez 2007). In some areas, they were crucial in the fight against the Shining Path guerrillas.

Moreover, in Tambogrande and Cajamarca, recruitment to the cause of important sections of regional society – especially citizens of Piura and Cajamarca, the two regional capitals – cemented the success of the protest. Large numbers of people from these two sites started to perceive mining operations as either a serious risk to their own water supply (Cajamarca), or to the safety of the environment (Piura).

6.2.3 The development of an attractive and flexible narrative

Original concern expressed locally about dispossession and loss of livelihood was rapidly fused with a broader environmental discourse. Initially, this was the result of a spontaneous synthesis of the various tendencies and concerns that allies brought to their assessment of the causes they were fighting for. Moreover, three factors heightened the use of the environmental framework.

First, the work of NGOs raised popular awareness of environmental issues and their connection to the sustainability of livelihoods. Second, environmental concerns became an acceptable framework within which to introduce popular demands in a context where other forms of political expression were repressed or illegitimate. Third, international institutions and NGOs sympathised with and supported popular environmental struggles, providing resources and advocacy networks.

Moreover, the flexibility of the environmental framework made it possible for different groups to come together under the same banner. However, the process did not only involve the addition (or substitution) of a new set of issues. This fusion of discourses transformed the original meaning of the concepts. Thus, the conventional perception of the environment being linked to the conservation of nature was broadened to include long-standing social demands such as dignity and justice, popular control over territory, respect for human rights, and sustainable development (Arellano-Yanguas, 2008:26).

Not surprisingly, political activists portrayed the Tambogrande and Cajamarca conflicts almost entirely in environmental terms. However, the reality is more complex. As Bebbington et al. (2008:10) argue with regard to Cajamarca, “The mobilizations brought together groups motivated by quite different concerns [...] These actors, while united by a general sense that Yanacocha has dispossessed them from something, differ in the specific nature of their concerns.” In

Tambogrande, initial apprehensions also evolved to incorporate the right to decide the allocation of local resources (Revesz, 2009b).

This fusion of different discourses within a flexible environmental framework is not new; Banks (2002), and Macintyre and Foale (2002) discuss similar earlier processes in Melanesia. The capacity of this discourse to attract the attention of a wider audience and, therefore, to represent a real threat to corporate reputations, allows people to employ it effectively in different settings, even if their demands differ significantly from the narrower, technical understandings of what environmental impact is. I discuss this more extensively in the analysis of the second type of conflict under *enhancing bargaining power*.

6.2.4 *The adaptation of the repertoire*

Protest marches, general strikes and roadblocks are the protesters' most common weapons in the early stages of social conflict. The Peruvian government's response is suppression. The companies, on the one hand, look to the state for protection and on the other, try to derail the protest by offering employment, social projects or, in some cases, bribes to movement leaders. These tactics frequently lead to the radicalisation of the conflict and an escalation in violence. Violent confrontation with the police at roadblocks and the destruction of company assets during marches on its premises signal the peak of the clash. However, this kind of escalation tends to alienate the more moderate members of alliances – urban people who sympathise with the protest, some NGOs, religious groups, etc., hindering the protesters' capacity to achieve their objectives.

Thus, In Tambogrande and Quilish Hill (Cajamarca), the most promising option was to transform the tactics by radicalising the political rhetoric but reducing the use of violence. Media campaigns, the publication of alternative assessments of the real impact of mining and calls for popular consultation are the elements of this modified strategy. However, this softer approach still retains the radical message: the population of the mining area is not only determined to safeguard livelihoods, but also to defend its right to make decisions that affect sovereignty over its territorial resources (Revesz, 2009b).

In sum, these examples of local resistance to the initiation or expansion of mining – all-or-nothing conflicts – occur mainly when people perceive that they can do

without the mining operation, that they have alternative, adequate livelihoods. This was the case with the threat to export-oriented agriculture in Tambogrande and water scarcity in Cajamarca. In addition, overwhelmingly successful resistance to a mining operation tends to prevail only where proximity to a city provides alternative jobs, markets for rural produce and the critical mass of people necessary for a major confrontation. These conditions are especially unlikely to be found in sparsely populated regions above about 3,500 MSL in the central and southern Andean highlands, since non-mining livelihood opportunities in such locations are scarce.

6.2.5 The influence of the NEIS on emblematic anti-mining conflicts

New anti-mining conflicts were rare in 2004-2008. The Rio Blanco–Majaz case has been the most prominent (Bebbington, 2007:16-19) and in 2009–2010 two other disputes erupted that have the features of an anti-mining conflict. The resistance of my friend Santiago and his Amazonian compatriots to the legislation facilitating the incursion of extraction industries into their territories is the first. It represents a determined opposition to mining and oil exploitation on the grounds of environmental damage and loss of territorial control. Both these motives are especially important to the indigenous Amazonian people, who rely on the rainforest for all aspects of daily survival.

The conflict that erupted in Islay – Arequipa – in early 2010, around ‘Tia María’, the new mining operation of SPCC, is the second case. The population of Islay, a coastal valley endowed with abundant farmland, opposed the new operation because its use of underground water would jeopardise commercial agriculture in the valley. A certain amount of internal division notwithstanding, massive popular mobilisation stopped – or at least temporarily halted – development of the project (Rojas & Salas, 2010).¹⁰³ These two high profile cases are very important because they generated political debate on the role of extraction and the need to reform the institutions governing the extraction industries.

I argue that the implementation of the NEIS together with the mining boom has diminished the frequency of anti-mining conflicts, despite the rise in mining

¹⁰³ Nevertheless, it is possible that an agreement on the construction of a dam to be used for both mining and agriculture might ease this dispute.

investment. A combination of two factors has led to a lower incidence. First, large *canon minero* transfers have changed popular expectations about potential livelihoods. People in mining regions perceive public sector employment funded by mining revenue can benefit them – as long as mineral prices remain high – even if the expansion of operations damages agriculture and other pre-existing sources of livelihood. Second, the anticipation of a historically high price for minerals is modifying the behaviour of mining companies. They increase their social spending in the communities around the new operations to cultivate popular acceptance. Moreover, when the mineral deposit is large and rich, they also are ready to increase investment in less harmful technologies.

Quellaveco, the giant Anglo American's new operation in Moquegua is an example of this tendency. Anglo American bought the rights to exploit this copper deposit from the Peruvian government in 1992. The site is located within 15 kilometres of Cuajone, the third largest mine in the country. However, in 2000, peasant communities around the site refused to grant Anglo American a social licence to operate on the basis of an inadequate water management plan.¹⁰⁴ In refusing the licence, the population of the highlands and more prosperous peasants in the Moquegua Valley recalled their bad experiences with Cuajone.

In contrast to the behaviour of Monterrico Metals in the Rio Blanco project, Anglo American bided its time, accepted the initial verdict without appealing to the Peruvian government for the enforcement of its legal rights. In 2008, the company tabled a fresh plan for public consideration. The new design of the mine significantly reduced the negative impact of the operation through a substantial increase in the initial investment, especially with regard to water management.¹⁰⁵

Beyond this important technical development, during the most recent escalation in mineral prices, there has been a change in people's perception of the benefits mining could bring. From 2006 to 2008, the coffers of municipal governments in Moquegua overflowed with *canon minero* funds (see statistics in Chapter 2 and Appendix VI). This allowed municipal governments in Moquegua to generate thousands of relatively well-paid jobs in public works. In 2008, more than 50 per

¹⁰⁴ The plan had already been approved by the Ministry of Mining and Energy.

¹⁰⁵ Personal participation in Anglo American's environmental impact assessment workshop (Moquegua, 28-08-2008).

cent of the active population in the Andean districts of Torata, Carumas and San Cristobal were working in the public sector.¹⁰⁶ Impoverished peasants in these localities gained an important supplementary income and, in some cases, a completely new means of earning a living. In turn, this substantial increase in income boosted the retail trade and demand for services, benefiting the urban population in the regional capital.¹⁰⁷

The result was that in September 2008, when Anglo American organised workshops to present its modified plans, both at regional and municipal level, opposition to mining had largely dwindled away and the majority of the population viewed new mining investment with a sense of hope. However, this does not mean that there was no opposition. A group of peasants from the Moquegua valley and radical political activists took part in the workshops to make sure that some people spoke out vociferously against the company's vaguely worded and rosy proposal, generating the impression that there was strong opposition to the project. The company also prepared carefully, renting coaches to bring loyal supporters from communities in which it had previously financed social projects. Anglo American's representatives claimed that the new operation would create more than 4,000 new jobs – 1,500 direct and 2,500 indirect jobs – and would double the *canon minero* transfer to the region.¹⁰⁸ Even the most ferocious opponents conceded that they would be happy if they could finally come to a more beneficial deal with the company.¹⁰⁹

Anglo American has firm plans to invest between USD 2,500 and 3,000 million in Quellaveco, intending to start copper production in 2014. However, the way in which Anglo American engaged with the peasant communities to gain the social license, generated internal divisions, promoted unrealistic expectations, and laid the foundations for the future proliferation of the second type of conflict.

¹⁰⁶ Interviews with mayors and municipal managers in the three municipalities (2008-171, Calacoa 16-08-2008; 2008-177, Carumas, 28-08-2008; 2008-189, Torata, 05-09-2008).

¹⁰⁷ Retail prices increased by 23.4 per cent in Moquegua in 2006–2008, in comparison to the 12.7 per cent increase in Lima (Ministerio de Economía y Finanzas - Perú, 2009).

¹⁰⁸ Participants in the Anglo American workshop and interview with the manager of community relations at Quellaveco (2008-191, Moquegua 09/09/2008).

¹⁰⁹ Interviews with representatives of the National Confederation of Communities Affected by Mining (CONACAMI) (2008-161, Ilo 16-08-2008; 2008-189, Moquegua 08-09-2008).

6.3 Communities enhancing their bargaining power to negotiate the redistribution of mining benefits

In the second type of conflict, confrontation is widely understood to be a prelude to direct bargaining with the company in order to gain greater compensation. However, a common strategy is to make these conflicts appear similar to the first type. Both types of conflict may share the same tactics and – frequently – narratives, but they differ in their aims.

During my field research, I found this more tactical type of conflict far more common than the first anti-mining type. It appears that the implementation of the NEIS in the context of a dramatic increase in the profits of the mining companies has generated incentives for communities to engage in contentious activities in order to access what they consider to be a fairer share of the benefits.

Some of my Peruvian colleagues, being active members of social movements, were not very comfortable with my description of this second type of conflict when I presented a preliminary version of these findings in 2008.¹¹⁰ They argued that my proposal shifted responsibility for the eruption of conflicts from unfair company practices to the supposedly avaricious behaviour of the peasants. My study does not have that intention, but their criticism encouraged me to proceed with extreme care when assessing the evidence emerging from my field work. My argument is that beyond the reprehensible behaviour of some mining companies, the introduction of short-sighted policies has tended to promote this type of conflict. The mining companies appear to have shot themselves in the foot when they agreed with government policies benefiting them in the short-term but eroding the legitimacy of the state and making companies responsible for service delivery in the territories around their operations.

I undertook a four-step analysis. First, I introduce the main actors involved in these conflicts and the context in which they interacted. Second, I identify different motivating factors. Third, I review some conflicts of this type, and conclude by summarising the main features of these conflicts.

¹¹⁰ Presentation at the international seminary, *The New Paradox of Plenty in the Andes: budget coalitions, sub national governments and social monitoring*. Organised in Lima by the Institute of Development Studies (IDS), Revenue Watch Institute and the Instituto de Estudios Peruanos (11-12 November 2008).

6.3.1 *Peasant communities and companies interacting in a changing environment*

Peasant communities located close to the mines were the main actors in this type of social conflict in 2005–2008. This is not surprising since, while municipal governments were occupied spending *canon minero* transfers, peasant communities on the ground strived to grasp benefits for themselves from the mining boom.

The adoption of a local approach to sovereignty over resources has legitimised the claims of peasant communities. The constitutional sanction of the state's ownership of the subterranean riches of the country has little sway over people's views. Claims for priority of ownership over natural resources are made according to level of territorial organisation: the region takes precedence over the state; the municipality takes precedence over the region; and, at the end of the chain, peasant communities take precedence over municipal governments that have frequently alienated them. For example, although regional and municipal governments in mining regions have received an extraordinary amount of revenue in recent years, the communities around the operations strongly believe that these funds do not reach them.¹¹¹ Therefore, they look directly to the mining companies as a source of immediate benefit.

In this context, I found that two factors increased the bargaining power of communities in their relationship with the mining companies. First, legislation required the companies to reach an agreement with the owner of the land. Second, beyond this formal requirement, there was mounting pressure on the companies to obtain a 'social licence to operate'. This means that they had to get explicit approval from the communities in the area around the operation to proceed with their investments (World Bank, 2003:21,50). Failure to procure this social licence before an operation started, or failure to maintain support at a later stage led to serious loss of reputation. Gil (2009) argues that the combination of these two factors increased the leverage of communities around Antamina, which were better able to negotiate alternative compensation packages in the early stages of the operation.

¹¹¹ This opinion was often expressed in my interviews with peasant community organisations.

Mining companies operating in remote areas of the country believed they needed to convince the local communities of the advantages that mining could bring them. Under this pressure, companies responded by boosting their presence through a twofold strategy: (i) scaling up their CSR budgets, and (ii) reaching an agreement with the government over the controversial Mining Program of Solidarity with the People (MPSP), which exonerated mining companies from the payment of windfall taxes in exchange for a commitment to invest a predetermined amount of money in social development projects (see Chapter 1).

But pursuing this strategy generated new problems. Although mining companies claim they do not intend to act as a proxy for the state, in fact, they do because both the state and the communities demand it.¹¹² The people living around the mines perceive that the government renunciation of a windfall tax means the companies retain an unfairly large share of the profits. The implementation of the MPSP is thus an explicit admission that the companies are neglecting their duties, not a sign of their benevolence. This perception legitimises the claims lodged by peasant communities against the companies. Moreover, when the companies demand a greater presence of the state in mining regions (Apoyo, 2009a), the government reminds them that they have a commitment to improve the lives of people living around the mines (El Comercio, 2008a). As a result, the strategy has trapped companies in a web of ever more complex contention and positioned them at the forefront of popular demands and anger.¹¹³

6.3.2 *Triggers of 'distributive' conflicts*

Contextual factors are not enough to explain the actual outbreak of conflict. There needs to be an immediate cause for people to engage in contention. In my field research, I identified four different types of trigger in 2005-2008. First, peasant communities demanded the fulfilment of previous promises and agreements that they felt had not been honoured. These were mostly related to the implementation of social programmes and more local jobs, or salary rises for members of the community already working for subsidiary firms. Second, they felt that land transfer

¹¹² Cheshire (2010) reports a similar process of state substitution in rural mining areas of Australia.

¹¹³ Senior managers of some of the largest international companies operating in Peru expressed their dissatisfaction with the current situation. They recognised that payment of the windfall tax would have put them in a better position to hold the government accountable for its performance in mining localities (personal interview at PERUMIN, Arequipa 16-09-2009).

agreements were unfair. Although the price had been agreed 10 or 15 years ago, the current ratio between payments and the astonishing company profits was interpreted as a big swindle. Third, some communities demanded a share of the unprecedented profits on the basis that they had never previously benefited from the natural wealth they considered rightly belonged to them. Finally, in the context of historically high mineral prices, companies decided to reinvest the profits in the expansion of their operations. Thus, they needed to renegotiate with local populations in order to obtain additional land and water supplies. The communities in turn recognised this process as an opportunity to realign themselves in relation to the company.

In the case of the first three triggers, the huge increase in corporate profits prompted peasant communities to critically reassess their relations with the companies. People revisited historical grievances that re-emerged with greater urgency. In contrast, the fourth trigger presupposed the emergence of fresh opportunities for the empowerment of the communities. Nevertheless, in none of the four cases did people radically oppose mining activities – they just wanted fairer compensation for loss of assets, and the assurance of future livelihoods.

There was frequently more than one of the four triggers at work in any given conflict because different actors within the communities attempted to safeguard different interests as the conflicts passed through various stages, in which the relationship between companies and communities also evolved. In the next section I illustrate the underlying dynamics of this type of conflict through an analysis of conflicts around Pierina and Antamina (Ancash), and in Pasco.

6.3.3 *The case of Pierina*

Conflicts around the Pierina area broke out in 2005, when the productive life of the mine was coming to an end.¹¹⁴ In 2003, official investigations revealed that Barrick¹¹⁵ had exploited a loophole in the law, allowing it to avoid payment of corporation tax from 1999 to 2001 to the tune of USD 141 million (Congreso de la República, 2003). In September 2004, a judicial resolution upheld Barrick's claim of non-liability for the tax. The refusal of the Ministry of Economy to appeal against the

¹¹⁴ Initially, the mine was scheduled to close down at the end of 2009.

¹¹⁵ The Canadian parent company that owned Pierina.

court's decision outraged the regional authorities and communities of Ancash, triggering opposition and social conflict. In March 2006, the mayors of the region and some social organisations called for a regional strike, putting forward a comprehensive platform of demands that the mining companies and central government should meet. In the case of Barrick itself, they demanded that it financially support some key regional projects.

The mobilisation of protesters brought Barrick to the negotiation table, but the protesters were frustrated by the company's response. According to Lombardo Mautino, the mayor of Huaraz and leader of the public protest, "the company did not cooperate and its public image with the local population deteriorated. This negative reaction paved the way for subsequent conflicts."¹¹⁶ On 4th May 2006, without previous warning, peasant communities around Pierina blockaded the two roads giving access to the mine. They demanded a salary rise for their members employed by subsidiary companies. After the violent death of one of the peasant activists, injuries to 19 people – both civilians and police officers – and a series of tense meetings, the company increased salaries from PEN 20 (USD 6.6) to PEN 30 (USD 10) a day.

An interview with the president of one of the peasant communities involved in the clash revealed the intricate web of causes behind this conflict. He argued that essentially, they had no complaints about the presence of the company, but that they were frustrated by the non-fulfilment of promises to provide jobs. Additionally, he explained that they had agreed to sell their land at PEN 1,000 per hectare (USD 330) in the hope that they would be employed on permanent contracts. Of course, no such thing ever happened and the people later regretted selling their land at such a low price.¹¹⁷ Therefore, in negotiating the resolution of the conflict, the population tabled a mixture of clear economic demands backed by a list of environmental grievances aimed at justifying their claims for compensation.

In January 2007, a new conflict arose. Barrick had recently acquired the rights to prospect Condorhuain Hill, close to the city of Huaraz and to Pierina. The communities closest to the potential operations supported Barrick in the hope that the new mine would offer them fresh economic opportunities. However, the

¹¹⁶ Personal interview 2008-104 (Huaraz, 25-06-2008).

¹¹⁷ Personal interview 2008-106 (Jangas, 26-06-2008).

population of Huaraz – which had been let down by Barrick’s refusal to make reparation for its tax avoidance – opposed the project. Again, the protesters employed an environmental argument alongside their grievance over Barrick’s failure to support regional development.¹¹⁸ Finally, the company pulled out of its attempt to exploit Condorhuain Hill on the grounds that the preliminary survey had revealed that the deposit was not commercially viable.¹¹⁹

6.3.4 Cases around Antamina

The interests of Antamina, the other large mining operation in Ancash, were also plagued by this kind of tactical conflict during the period 2005–2008. While the municipalities around the mine grew rich on *canon minero* transfers, the peasant communities of Carhuayoc, Huaripampa, Ayash and Juprog¹²⁰ engaged in various disputes with the company in order to get some economic compensation. These conflicts have complex roots that stretch back to the early days of Antamina’s presence in the region (Gil, 2009; Salas Carreño, 2008). Although unable to chronicle that history, I draw attention to some issues that repeatedly came up in discussions when actors explained the local dynamics.

First, in order to obtain the social licence to operate and to convince the communities and some private landowners of the advantages of selling their assets to the company, Antamina promised employment to local people, generating unrealistically high expectations about the positive impact of the mine (Gil, 2009:119-125). In this favourable context, the communities of Huaripampa and Carhuayoc sold significant portions of their land to Antamina at USD 450 per hectare.¹²¹

Second, the forced resettlement of those displaced by the mine generated popular discontent and the first signs of frustration. This dissatisfaction escalated when people realised that employment opportunities at the mine were scarce owing to their lack of the technical skills this highly mechanised industry demanded. The company tried to halt this growing unrest through the blatant cooption of the more

¹¹⁸ Personal interview with local leader of CONACAMI, 2008-103 (Huaraz, 25-06-2008) and with Lombardo Mautino, mayor of Huaraz, 2008-104 (Huaraz, 25-06-2008).

¹¹⁹ Personal interview with Guillermo Fajardo, Barrick’s senior community affairs manager, 2008-102 (Pierina, 23-06-2008).

¹²⁰ The mine is in their territories

¹²¹ Huaripampa sold 2,337 hectares and Carhuayoc 1,129 hectares. (Gil, 2009:115).

confrontational leaders. As one of the critics of Antamina declared, “Setting up a defence front against Antamina was the best business in town.”¹²²

For example, in 2001 Glicerio Mauricio, a member of one of the most influential families in San Marcos, was instrumental in the formation of the Front for the Defence of the Interests of San Marcos. He openly opposed Antamina, claiming that the company had deceived the population with empty promises.¹²³ He subsequently gained victory under this confrontational banner in the municipal elections of 2002. However, once in power, he swiftly reached an agreement with Antamina over the construction of local infrastructure in exchange for cordial relations. At the same time, Mauricio did well out of the deal personally: he founded a transport company that Antamina began to contract regularly, and two of his sons were employed by the company.¹²⁴

Antamina resorted to similar tactics in order to quash disputes in the communities. The setting up of both communal and private firms to which the company promised contracts was the most frequently used tool for the appeasement of conflict. This strategy commonly implied the cooption of leaders and the division of communities into opposing factions. Initially, this ‘divide and conquer’ approach worked well for Antamina. However, as some company officials confessed, it also created an incentive for the appropriation of resources and promoted confrontational leaders that exploited the conflict for personal gain.¹²⁵

Third, local narratives often emphasised the arrogant behaviour of mine managers and staff, including the air of detachment and self-importance that people perceived in the few local people who fulfilled the dream of getting a job at the mine.

Fourth, the immense amount of money Antamina spent on CRS did not help to improve its relationship with the communities. The Company usually subcontracted the implementation of its CRS programmes to national and local NGOs, which

¹²² Personal Interview 2008-123 (San Marcos, 07-07-2008).

¹²³ Apparently, Mauricio was personally aggrieved because he was one of the private landowners who had sold an old underground mine situated on the large copper deposit being exploited by the current operation to Antamina for USD 900,000. A few months later, some relatives who had initially resisted a similar offer sold a comparable mine for USD 11 million. Personal interview 2008-121 (San Marcos, 06-07-2008).

¹²⁴ Interviews 2008-121 (San Marcos, 06-07-2008); 2008-123 (San Marcos, 07-07-2008); 2008-129 (San Marcos, 09-07-2008).

¹²⁵ Interview 2008-140 (Antamina, 16-07-2008).

helped to project the image of an open and receptive company. However, the communities that should have benefited from these initiatives were unanimously disillusioned with the efforts of Antamina and the performance of the NGOs. According to a member of one of the communities:

These NGOs got a lot of money from Antamina. They came and started to ask a lot of questions about how we do things and how we think things should be done. Then, after a few weeks, they came back and used the information that we gave them to train us. Later, they disappeared. They do not live here and do not understand us. They are interested in the money, but not in our development. Antamina would do better to give the money directly to us (Interview 2008-131; Carhuayoc, 10-07-2008).

Against this backdrop, the communities around Antamina started various conflicts in the period 2005–2008. In September 2006, residents of Juprog (4,200 MSL) tried to bar access to the mine, demanding that Antamina keep its promise of more jobs for the community. The clash between the claimants and the police resulted in eight people being injured. The representative of the regional Ombudsman office was invited to mediate in the negotiations. The original demand for employment was combined with concerns about the population's health. In September 2007, after several failed attempts to reach an agreement, 500 inhabitants of Juprog and Ayash blocked the road to the mine. At the same time, Antamina published a proposal for the expansion of its operation towards the territory of Juprog and, consequently, the acquisition of 1,353 hectares of farmland and relocation of the 82 families living there.¹²⁶

The company offered USD 600 per hectare and the relocation of the inhabitants to a coastal region. However, the people of Juprog were deeply offended. Some of them had previously been relocated from the land that Antamina had acquired in the 1990s for its original operation and were aware that the offer would not permit them to start a more comfortable life in another location. Thus, although they did not reject the relocation proposal out of hand, they were keen to secure better terms for a potential agreement. Negotiations opened with an asking price of USD 100,000 per hectare, and an additional USD 200,000 for each family on the site holding a title deed. This last point increased the number of affected families from the 82 permanent residents to more than 500 families with historical rights to the

¹²⁶ Information about these conflicts was gathered through attendance at a communal assembly (2008-135; Juprog 12-07-2008). I later cross-checked the details with the Ombudsman's representative for Ancash and also with Antamina.

land. The communal assembly realised that Antamina would not accept such a proposal, but the community wanted to demonstrate its determination to the company and get a fair price this time.

When I visited the community in July 2008, I was shocked by the number of new houses that seemed to be unoccupied. The neighbours explained that the houses belonged to descendants of the community living in San Marcos, Huaraz, or Lima. They had built dwellings in Juprog in an attempt to force Antamina to include them in the resettlement deal. After some months of fruitless negotiation, the people living there permanently formed the opinion that including these 500 families on an equal footing would reduce their compensation package. The situation thus created tension between the two groups.

Antamina continued to hold meetings with the community at the end of 2008. The inhabitants had decided it would be preferable to negotiate directly with the company without bringing in any third party to arbitrate. During the process, the community used both environmental demands and threats of fresh roadblocks as bargaining tools. They assumed that Antamina would finally make them a better offer since it needed to expand its operation.

At the same time, Antamina was involved in similarly intricate disputes with the communities of Huaripampa, Carhuayoc and Ayash. In Huaripampa and Carhuayoc, employment at the mine and additional contracts benefiting transport and construction companies – both communal and private – were the main issues. However, community representatives used the low price paid by the company for the initial acquisition of land and demands for environmental damage compensation to try to force a better deal.

The situation in Ayash was slightly different, but the pursuit of a fairer compensation package was at its heart. Ayash is a large community situated in the valley below Antamina's huge tailings dam and comprises three different municipalities. When I visited the area in 2008, the company and community were locked into a protracted dispute over environmental damage, loss of livelihood and the health of the local population.

It was generally agreed that there were high heavy metal levels in people's blood. However, the failure to conduct a baseline survey to determine the health of the

population before the construction of the mine gave Antamina the argument that the problem was due to the naturally high mineralisation of the valley, which had contaminated the soil, water and, consequently, the food. In response, the whole community of Ayash demanded to be relocated to a safer area. However, Antamina rejected this option on the grounds that it would be tantamount to admitting some kind of responsibility for the situation. Therefore, demands and negotiations focused once again on employment and the implementation of social projects.

6.3.5 Cases in Pasco

In Pasco, I studied the dynamics of contention around the mine in Cerro de Pasco, and another four middle-size operations in the surrounding municipalities. Despite the severe environmental damage that mining has produced in the region, all the conflicts reported in recent years have ended in agreement over economic compensation and employment in subsidiary companies, without demands for the implementation of effective measures to prevent environmental degradation.¹²⁷

This is especially relevant in the city of Cerro de Pasco. The situation of the community of Champamarca – placed less than three hundred metres from the Cerro de Pasco open pit mine – illustrates the trade-off between health and employment opportunities. The community lives among piles of rubble and tailings, and 83 per cent of the children have high levels of lead in their blood (Astete, 2005). Nevertheless, the population has refused to leave the place and move to a new site because temporary jobs at the mine are the only opportunity for making a living in the city. Moreover, the president of the community declared that they hoped that remaining there would help them get jobs with a Canadian company that was soon arriving to re-exploit the old tailings left behind in the 1980s by the state-owned company Centromin.¹²⁸

In a similar vein, though on a larger scale, a significant share of the population of the city of Cerro de Pasco, including its mayor, resisted Law N° 1244-2008, which decreed the relocation of the whole city to a new site 50 kilometres away. Despite the good intentions of Gloria Ramos, the congresswoman from Pasco who

¹²⁷ An excellent media report on the environmental problems of the city can be found at <http://elcomercio.pe/EdicionOnline/especiales/cerrodepasco/index.html>

¹²⁸ Interview with the president of Champamarca (2008-062; Champamarca, 24-05-2008).

introduced the law in Parliament, people in popular assemblies were unconvinced of the viability of trying to make a living in a new town that had few employment prospects.¹²⁹

The activities of this mine also affected the well-chronicled community of Rancas.¹³⁰ Despite being in a comparatively fortunate situation in comparison to other communities in the area, the population of Rancas came into conflict with Volcan, the current owner of the mine, in 2008. In 1990, the community had signed an agreement with Centromin granting the mining company a lease on part of their territory for a period of 20 years. In exchange, the community received USD 2.5 million, which it invested in setting up a peasant cooperative and a community company – Communal Multiple Services Company (ECOSERM) – that started providing services to the mine.

In 2008, the community numbered approximately 300 families, with a balance in employment between mining and agriculture. About 400 people were regularly engaged in farming activities, using the land furthest away from the mine. Meanwhile, another 320 mainly young people worked for ECOSERM, which had grown into a thriving business through the diversification of its activities and customers. The vice-president of the community attested that the close relationship with the mine was one of the main factors behind this success.¹³¹

However, this apparently fruitful relationship did not prevent the eruption of new conflicts. In July 2008, Volcan informed the local authorities of a new plan to expand its operations. The development necessitated that Rancas be granted a fresh lease on an additional 1,000 hectares. The demand came at the time when the community was in the process of renewing the old lease agreement due to expire in 2010. The discussions about the renovation of the old agreement and the lease of new land generated tensions among community members. Widely known for its lack of tact in getting things done, Volcan did not wait for the formal

¹²⁹ Personal attendance at local assemblies in Cerro de Pasco on 20th and 21st May 2008.

¹³⁰ A brief reference to the novel *Redoble por Rancas* (Scorza, 1970) can be found in Section 2.2.1.

¹³¹ Interviews 2008-052 (Simón Bolívar, 19-05-2008) and 2008-054 (Simón Bolívar, 20-05-2008).

authorization of the community and occupied the new land taking for granted that the community would agree.¹³²

The move aroused the anger of a section of the community and put the supporters of the new deal with the company in a difficult position. During the ensuing demonstrations, the protesters complained about the invasion of the territory and the pollution of water and land. They drew a parallel between their protest and the struggle of their parents and grandparents against the Cerro de Pasco Copper Corporation in the 1950s. However, they knew that they needed to reach an agreement with the company, as permanent conflict would jeopardise the viability of ECOSERM. When I interviewed the community authorities shortly before this confrontation, they were already of the opinion that a certain level of conflict, including the existence of different opinions among the locals, might be a good way of applying pressure on Volcan in order to get a better deal in the imminent negotiations.¹³³

Similarly, conflicts between the peasant community of Huayllay and the American Silver company, Yarusyakan, Ticlacayan and San Juan Milpo with the Atacocha company were settled with economic agreements that did not take the original environmental claims into account. In all these cases, greater employment opportunities were the principal demands put forward by the communities during the negotiations.

The situation at El Brocal, the other important mine in Pasco, is in stark contrast, illustrating the importance of employment in mining-related conflicts in the region. El Brocal occupies land belonging to the peasant communities of Smelter and Huaraucaca. There is no evidence that El Brocal has a better environmental management policy record than other mining companies in the region. In fact, there are important environmental liabilities in both communities that El Brocal has not addressed.¹³⁴ Moreover, the local population could have easily targeted the company given that in 2005, a massive landslide from one of its waste piles buried the community graveyard. However, during the period 2005–2008, there was no

¹³² Interview with senior managers of mining companies at PERUMIN (Arequipa, 16-09-2009).

¹³³ Interview 2008-054 (Simón Bolívar, 20-05-2008).

¹³⁴ A smelter facility closed down by previous companies operating in the area had produced the environmental damage.

significant conflict between the company and these two communities. Employment opportunities appear to be the explanation for this state of affairs.

Huaraucaca consists of 260 families. In 1999, the community sold part of its territory to the mining company and, following the example of Rancas, decided to use the proceeds to set up a company that could work for El Brocal. The enterprise was successful and by 2008, the community owned two separate businesses – ESGH and ECOSEMH¹³⁵ – that employed more than 300 people. At the same time, the community sold additional land to the company and gave up agriculture completely. As a result, the livelihood of the entire community came to depend on the mine.¹³⁶

The community of Smelter run a smaller enterprise, but this still demonstrated sound business sense to El Brocal. In 2007, the company suggested to the president of the community that it establish a company through which the mine could hire some of the inhabitants. By the following year, the new company was already providing jobs for 50 out of the 300 members of the community.¹³⁷

Despite its early success, El Brocal's strategy for ensuring social stability has two potential weaknesses in the long term. First, as the general manager of the company recognised, many of locally employed workers are not essential to the operation. Thus, such a level of employment can only be sustained in the context of very high international prices and corporate profits.¹³⁸ Second, the communities have become highly dependent on the mine, and attempts to enlarge their client base have not yielded significant results.

In these examples, communities perceived social conflict as the only way to attempt to negotiate on an equal footing with the company. The asymmetry of power between the actors, and the widespread suspicion of collusion between central government and the mining companies excludes the state from acting as an arbitrator underlines this perception.

¹³⁵ They operated as an intermediate employment agency providing a qualified labour force and hiring out heavy machinery respectively. In 2007 el Brocal paid USD 3,080,000 for these services (EL Brocal, 2010).

¹³⁶ Interview with the president of the community (2008-060; Huaraucaca, 22-05-2008).

¹³⁷ Interview with the president of the community (2008-061; Tinyahuarco, 23-05-2008).

¹³⁸ Interview with Ysaac Cruz, general manager of El Brocal (2008-199; Lima 19-09-2008).

6.3.6 *How do communities and companies engage in social conflict?*

Once a community decides conflict is the best strategy to benefit from the rent generated in its territory, the connections between the root causes, the ways in which local demands are expressed and the actual outcomes of negotiation become complex and ambiguous. The communities frame their demands in a variety of ways, employing discourses from ecology, social justice, and, most recently, ethnicity.

The use of an ecological discourse in this kind of conflict is not new. In similar situations in Papua New Guinea, Macintyre and Foale (2002) observe that local people find ecological discourses especially effective in legitimising claims for compensation. This does not mean that claims about the adverse environmental impact of mining are false, or that local people do not genuinely value their local environment. Rather, they find that it makes sense to align themselves with the global trend to make the environment an increasingly inclusive concept, which incorporates considerations of ethnic justice and the obligation to redistribute mining surpluses locally (Banks, 2002; Bridge, 2004).

In terms of ethnicity, the National Confederation of Communities Affected by Mining (CONACAMI) has made effective use of an ethnic discourse focused around indigeneity and a common historical Inca legacy (Palacín, 2008). However, most people directly affected by mining are reluctant to endorse the narrowly defined indigenous identity that CONACAMI ascribes to them (Paredes, 2006). Representatives of communities play their cards shrewdly in the tactical deployment of ethnicity to back their claims: “We are the descendents of the Incas, we have always been here, this is our home and the company came to dispossess us of our resources.”¹³⁹ They know that portraying the conflict as an indigenous claim provides extra leverage in negotiations (IIED, 2003).

How do peasant communities make the leap from environmental and symbolic claims and discourse to pragmatic negotiation over material issues? It seems that claimants have both in mind, but in most of the communities in my study, daily survival is the paramount issue. Moreover, once a mine is already operating and

¹³⁹ President of Tíclacayan in a public negotiation with the company Atacocha (Mayo 2008).

changes to the environment are inevitable, the logic of the negotiation requires them to put forward clear and achievable demands for economic compensation.

The logic behind these conflicts makes agreements for compensation highly unstable, leading to the recurrence of conflict. The companies are partially responsible for this because they frequently buy time in order to keep the mine running instead of looking for real, long-lasting solutions. Although mining companies have highly qualified anthropologists in their community relations departments and use the discourse of ‘accompanying the communities at their own pace’,¹⁴⁰ maintaining the activity of the operation is invariably their main goal in the event of conflict. The opportunity costs of postponing the construction of a new mine or paralysing its operation once it is running can reach the order of millions of dollars a day in the present climate of high mineral prices. Co-opting leaders and creating divisions and rival factions are frequently part of the ‘damage limitations’ strategy of the companies. Not surprisingly, agreements last only until the emergence of a new leadership that demands to re-negotiate the terms.

In contrast to the anti-mining conflict, national and international actors are completely absent. In the case of the troubled relations between Juprog and Antamina over the purchase of community land for the expansion of the mine, CONACAMI was involved in the initial stages of the conflict but once members of the community had made up their minds to ask for fair compensation for their land, they asked CONACAMI to leave them alone¹⁴¹. Although the involvement of this and other national and international NGOs in the disputes would strengthen the communities’ position, they prefer to negotiate directly with the companies without any third-party involvement. They seek flexibility and are afraid to rely on external actors, often perceived as having their own agendas, like pushing confrontations.

The more tactical nature of these conflicts does not mean they are less violent. Marches, roadblocks, taking company staff hostage, or threatening to damage company premises are the usual means of putting forward the community’s demands. An increase in the number of strategies marks the escalation of social conflict that has frequently led to serious casualties. When confrontations reach this

¹⁴⁰ Personal interview with a senior community relations manager (2008-102, Huaraz 23-06-2008).

¹⁴¹ Personal interviews with members of the community and CONACAMI (2008-135, Juprog 12-07-2008; 2008-153, Lima, 08-08-2008).

point, the regional Ombudsman or the local catholic priest could be called into the proceedings to broker a deal.

To sum up, in line with the findings of the quantitative analysis in Chapter 5, increases in mining company profits have stimulated further conflict through which local populations see as a way to negotiate over the distribution of the revenue. In this type of conflict, mining expansion – whether in terms of investment or the total area for which companies hold exploitation rights – has not usually triggered disputes on account of its negative impact on livelihoods or the environment, but through the emergence of a new opportunity to negotiate with the company for a more favourable distribution of mining-generated rent – a bigger slice of the cake.

The next section analyses the last type of conflict triggered by increased *canon minero* transfers to sub-national governments.

6.4 *Canon minero* transfers at local level: pouring oil on the flames

In June 2008, Moquegua hit the headlines when its population paralysed the region and for ten days, took control of and closed the bridge that linked the rest of the country with Tacna and Chile. Disruption to trade caused significant loss of business, damaging the country as a whole. When the government tried to restore public order, the protesters took the head of police and 60 of his officers hostage, some of who were injured.¹⁴²

The distribution of *canon minero* transfers between Moquegua and Tacna triggered the protest. SPCC paid taxes on the total profits of its operations which were located in Tacna (Toquepala) and Moquegua (Cuajone), and the central government was required by law to distribute the transfers in proportion to the material processed in each region. However, due to its lower grade ore, in 2007, Tacna processed 78 per cent of raw material but produced only 22 per cent of the total refined copper. This meant that in 2008, Tacna received 78 per cent of the *canon* transfers that SPCC taxes had generated. This was too much for the people

¹⁴² At the height of the demonstration, between 10,000 and 15,000 people occupied the Montalvo Bridge (2008-196, Moquegua 11-08-2008).

of Moquegua, who felt cheated of the proceeds of ‘their’ copper.¹⁴³ Consequently, they demanded that the central government amend the regulations immediately.

The incident, popularly known as the *Moqueguazo*, perplexed a national public that could not comprehend why the population of one of the wealthiest regions of the country had mobilised so ferociously. While carrying out field research, I learnt that this incident was not exceptional but the expression of a new type of mining-related conflict. I conducted my fieldwork in 2008 at a time when regional and municipal governments had been receiving abundant *canon minero* transfers for the previous four years and conflicts had increased markedly in the mining regions. When I thoroughly examined my data on political dynamics, I realised that the devolution of the *canon minero* rather than reducing the number and intensity of conflicts had, in fact, generated new disputes over access to and use of these financial transfers. I subsequently identified three different subtypes within this new form of conflict.

The first subtype comprises conflicts between the population and the regional and municipal authorities reflecting the inability of the authorities to allocate *canon minero* transfers efficiently. They are obliged to follow strict centrally imposed regulations to the letter, but the lack of administrative capacity within municipal and regional governments drives such conflicts, which were common in Ancash and Pasco in 2005-2008. People complained about both the lack of investment projects and the poor quality of those that were implemented. However, in some places, such as the Conchucos Valley (Ancash) and the municipalities close to the Cuajone mine (Moquegua), the sheer size of the transfer allowed the municipal authorities to mitigate popular pressure – at least temporarily – by expanding their payrolls: quiescence was exchanged for well-paid jobs in public works.

The second subtype includes conflicts that arise between different levels of government over the regulations and mechanisms governing the distribution of *canon minero* and similar fiscal transfers. In Ancash, Moquegua and Pasco, municipalities challenged the regional government over the criteria it used to allocate funds. Moreover, these same regional authorities also resisted attempts by the central government to modify the legislation for the distribution of *canon minero* transfers and related schemes that would directly benefit the mining regions.

¹⁴³ The national newspapers of the day were full of testimonies employing these arguments.

Politicians had two incentives for initiating and leading these conflicts. First, because the Peruvian political system is highly fragmented (see Chapter 3), there was a very small political cost to them in building local support through confrontation with the higher levels of government. Second, conflict with the higher levels of government was a pre-emptive strike against public pressure (on municipal mayors) or from mayors (on regional presidents). Although the law prohibited them from organising or participating in contentious political events, including marches and strikes, local politicians did not hesitate to take covert action if it meant diverting popular anger to other levels of government.

The third subtype relates to the rules governing the geographical distribution of *canon minero* transfers. Sub-national governments at the same level of the administrative hierarchy disputed their territorial boundaries. Boundary variations of a few hundred metres can make huge differences in terms of the level of *canon* transfer received. The control of water resources might therefore provide extra leverage in future negotiations with mining companies.

An analysis of the events leading to the *Moqueguazo*, and of parallel political dynamics in Ancash, reveal how these three subtypes of conflict interacted in escalating contention.

6.4.1 *The Moqueguazo: the curious path from the hills to the bridge*

After the conflict in Moquegua, the national government held Zenón Cuevas – the president of the Front for the Defence of the Interests of the People of Moquegua (FEDIPM) – and Cristala Constantinidis – the former president of the regional government – responsible for the demonstration and ensuing violence, linking them to leftist political movements. Both ironically commented that they would have been delighted to have such strong political appeal.¹⁴⁴ Yet, in truth, they did not have the capacity to instigate such a massive mobilisation. On previous occasions they had called for public demonstrations around other issues but with very little success. Rather, the conflict reflected the presence of a more complex web of underlying local dynamics linked to the issue of *canon minero* transfers.

¹⁴⁴ Personal interviews in Moquegua (22-08-2008) and Lima (15-09-2008).

For a long time, wealth generated by the mining industry had been concentrated in the two main cities of the region, Ilo and Moquegua, mainly through economic activities financed by the spending power of SPCC workers. It was not until 2005 that the rapid increase in *canon minero* transfers resulted in the municipalities of the Andean region being incorporated into the mining dynamics. Subsequently, in 2006 and 2007, the region and its municipalities received the highest per capita transfers in the country (Table 6.2).

Table 6.2 Per capita *canon minero* transfers (US dollars) in the three Andean municipalities of Mariscal Nieto-Moquegua (2004–2008)

	2004	2005	2006	2007	2008
Carumas	70	786	1,428	2,154	1,395
Torata	121	1,799	3,070	4,398	2,721
San Cristobal	73	774	1,404	1,868	1,070

This sudden increase in income was perceived as a unique opportunity to improve the lives of the people. However, it also generated disputes in these ‘newly rich’ municipalities: disagreements over territory and riparian rights, and conflicts between the population and the authorities.

First, the public and the authorities realised that the existence of mineral deposits in their territory was a tangible source of income. Water sources also gained new strategic importance because they raised the stakes in negotiation with the companies. Indeed, between 2005 and 2008, the regional government of Moquegua reported 23 territorial conflicts within its jurisdiction, most relating to mining issues. Several municipalities in Moquegua region fought amongst themselves (Gobierno Regional de Moquegua, 2008a). For example, Carumas and San Cristobal disputed the inclusion of the communities of Aruntaya, Titire and Jancopujo in their jurisdiction because a new mining operation, Aruntani, had commenced and they hoped to benefit from future *canon minero* transfers generated there.¹⁴⁵

However, quarrels with the neighbouring regions of Puno and Tacna over the control of strategic territories had a greater influence on the outbreak of the 2008

¹⁴⁵ Interviews with the mayors of Carumas and San Cristobal (2008-177, Carumas 28-08-2008; 2008-171, San Cristobal, 26-08-2008).

conflict over *canon minero*. For some years Puno had challenged the jurisdiction of Moquegua over Pasto Grande village, including Pasto Grande Lake, its associated water supply system, and the different mineral deposits that had already been discovered there. Simultaneously, Moquegua claimed jurisdiction over the community of Huaytire and Suche Lake, from which SPCC supplied the Cuajone mine then under the jurisdiction of Tacna. In 2007, this conflict in Moquegua became more serious when the population expressed its anger through street demonstrations. This mobilisation helped to build up the sense of grievance necessary to rally the people again in June 2008.

The second factor critical to explaining the scale of the public mobilisation in June 2008 is the increasing intensity of popular pressure on the mayors of the rural areas. New municipal and regional governments had come into office in January 2007. The new mayors had won the elections on the promise of delivering the full developmental potential of the *canon minero*. However, this was easier said than done and the mayors soon met popular dissatisfaction with their performance. The mayor of Torata was removed from office in May 2008, and his counterparts in Carumas and San Cristobal soon faced strong opposition and a popular call for their dismissal. Faced with mounting hostility, the mayors resorted to generating public sector jobs to appease the populace. Consequently, by late 2007 to early 2008, the majority of the population in these municipalities was employed in public works projects financed by *canon minero* transfers.

As Table 6.2 shows, when *canon minero* transfers diminished in 2008, this system of political patronage was jeopardised and, as a result, both the population and the local authorities had the incentive to mobilise opposition. The mayors pursued a double strategy: on the one hand, they attempted to acquire more money for their municipalities, and on the other, sought to divert popular criticism away from their management shortcomings and direct it towards an external target. Thus, the mayors were the main driving force behind the protest. Finally, they convinced those employed in municipal public works that if they did not support the mobilisation, the municipality would be unable to continue employing them.¹⁴⁶

In September 2008, I got stuck at major road -works on my journey to the highlands of Moquegua (not, this time, a roadblock). During a delay of several hours, I had a

¹⁴⁶ Personal interview with participants in the demonstrations.

pleasant and illuminating conversation with the two young women directing the traffic. One of them was Isabel, whose story I related in the introduction of this thesis. Accounts of their children's upbringing, and their long and gruelling day's work ended in their proud declaration that they had won the right to work by participating in the June demonstrations because the mayor had promised them jobs if they agreed to take part.¹⁴⁷ They also confirmed that the mayors had asked the companies working for the municipality to pay for trucks to take people from their homes to the city of Moquegua and discreetly provided the provisions necessary to feed the people during the demonstration.¹⁴⁸ Additionally, it seemed that the mayors had taken a special interest in the participation of former army conscripts from their municipalities, as these veterans played a crucial role in confronting the police.

In these cases, the repertoire of tactics is similar to that used in the direct conflicts between communities and mining companies. Nevertheless, one difference is that in this case, the companies are able to move out of the political spotlight. The focus of protest is on a more directly accessible objective: a share of the abundant revenue channelled to sub-national governments. The companies are thus able to stand back, thankful that they are no longer the main targets of conflict.

6.4.2 The domino effect in Ancash: from pressuring the mayors to enlisting the whole region in the battle against national policies

Management of the rapid increase in value of the *canon minero* transfers put the mayors who took office in 2007 in municipalities around Antamina (Ancash) under great pressure. As is usual after elections, the new incumbents seek to staff municipal administrations with their own people, dismissing most if not all the public servants who had worked in the previous one. Not surprisingly, they were unable to increase municipal spending in line with the higher level of transfers received (Table 6.3).

¹⁴⁷ Personal interview with participants in the demonstrations (2008-173, Carumas 26-08-2008).

¹⁴⁸ Peruvian law makes it illegal for public institutions to support this type of public mobilisation.

Table 6.3 Percentage of the 2007 capital expenditure budget actually spent and percentage of the vote secured by the winning candidate in the 2006 municipal elections, in the main municipalities around Antamina

	Cajay	Chavin Huantar	Huachis	Huari	Ponto	San Marcos
% capital investment budget execution	51.3	40.8	74.7	41.5	34.9	3.7
% of vote to the mayor	23.5	38.0	38.4	26.9	41.8	38.5

Source: Ministerio de Economía y Finanzas; Oficina Nacional de Procesos Electorales.

By the beginning of 2008, after just a year in office, the mayors met growing popular dissatisfaction and hostility. In San Marcos, the district hosting the mine and therefore receiving the highest *canon minero* transfer, the population started to mobilise against the mayor. His opponents formed a new Front for the Defence of the Interests of San Marcos and spread rumours of corruption and poor municipal government performance. By May 2008, tensions reached fever pitch when a majority of town councillors asked the National General Comptroller¹⁴⁹ to launch a formal inquiry into the municipal accounts for the period 2003–2007. Almost simultaneously, the town clerk publicly denounced the mayor for mismanagement.¹⁵⁰

Facing similarly troubled situations, the mayors of Huari and Chavin de Huantar crafted a twofold strategy. First, like their colleagues in Moquegua, they increased their offers of work (a more detailed analysis of this dynamic can be found in Chapter 8). Second, they targeted the even lower rate of budget spending of the regional government to deviate popular pressure from their own management.¹⁵¹

The regional president was in no better position. Investment in several key regional projects was paralysed because the plans lacked the technical rigour demanded by

¹⁴⁹ The original Spanish name for the institution is *Contraloría General de la República*. It is a body appointed by the Parliament to ensure that public institutions operate according to the law.

¹⁵⁰ Initially, the national general comptroller did not take the demand very seriously. In fact, his immediate response to the town councillors was that an audit of San Marcos' accounts was not scheduled for that year. However, the following year, as an 'urgent' solution, the comptroller visited San Marcos, Huari and the regional government of Ancash, and found serious irregularities in the management of the three institutions for the year 2008, which, in all three cases, involved breaking the law (Contraloría General de la República, 2010).

¹⁵¹ In 2008, the regional government of Ancash spent only 18 per cent of its total capital investment budget.

the Ministry of Finance and allegations of his involvement in corruption mushroomed.¹⁵² In June 2008, the mayors called for a strike, demanding the resignation of the regional president and appealing to the different groups of actors to join them. As was made clear at a regional assembly of regional social organisations held in Huaraz, the most active groups supported the idea of throwing out the president but were not happy about endorsing the mayors.¹⁵³ Nevertheless, they finally agreed to back the regional strike on 7th July.

The regional president, Cesar Álvarez, demonstrated that his reputation as a skilful political operator was well deserved. He picked up the proposal to change the legislation governing the distribution of mining profits to the mineworkers in order to mobilise the population against the national government and the parliament. According to Peruvian legal tradition, every year, businesses have to share 8 per cent of their net profits with their employees. In 1996, Parliament issued a decree (Nº 892) establishing an upper limit of 1.5 times the basic salary for this annual premium. Any surplus had partly – up to USD 2.5 million in 2008 – to be allocated to the *Fondoempleo* fund, and invested in job creation in the geographical area in which the profit was made. In January 2005, in line with the aim of the NEIS, a new law (Nº 28,468) decreed that after payment of bonuses and contributions to the *Fondoempleo*, the remainder of the 8 per cent of the profits should be transferred to the regional government for investment in improvements to local road infrastructure. According to this law, the regional government of Ancash received USD 151 million in 2007 (Fondoempleo, 2010).

As could be expected, the National Federation of Miners and Metal Workers of Peru lobbied for the removal of the cap on the annual bonus payment, finding support in a group of parliamentarians that introduced a proposal for the amendment of the existing legislation. Cesar Alvarez swiftly grasped the importance of this issue for the region and its population. He first put it on the political agenda, then mobilised his own support so that he might divide the regional opposition to him. The presence of an external enemy served to neutralise the internal opposition. The result was that on 8th and 9th July 2008, while there were significant popular demonstrations, including road blocks, few of the strikers

¹⁵² The national comptroller also confirmed the accuracy of these allegations in 2010 (Contraloría General de la República, 2010).

¹⁵³ Assembly held in the Municipality of Huaraz, 17-06-2008.

persisted in demanding the resignation of the regional president; instead, a significant number directed their anger against the policies of the central government.

6.5 Conclusion

The implementation of the NEIS in Peru aimed to reduce the anti-mining demonstrations that had impeded the development of mining operations in the early 2000s. However, the NEIS has created two new types of conflict. The first is already known in the wider literature: the rent attached to mining activities tends to generate conflict, notably between companies and the population of the areas in which they operate. This is especially likely in polities such as Peru where central leadership is poorly integrated with sub-national authorities, and is, moreover, perceived to be captive to mining interests. The national government is thus unable to play an effective role in resolving such routine political disputes over mining rents. This type of conflict has escalated as commodity prices and mining profits have increased in recent years.

The second type of conflict I have documented reflects causal processes that I did not anticipate finding before I began my field research, and which seem to be much less widely appreciated. Large fiscal transfers to the sub-national governments of the mining regions themselves cause or exacerbate social conflict through several kinds of mechanisms.

From my data, It is not clear how far these two types of conflict tend to reinforce or substitute for each another, or whether they simply coexist. However, I have found some evidence to suggest substitution processes are taking place. In certain localities, in 2007 and 2008 when very high commodity prices and *canon minero* transfers provoked disputes among local populations and municipal governments over public spending issues, the mining companies were temporarily removed from the line of fire.

At present, the Peruvian government, social movements centred on mining, and international donors in Peru remain unaware of the diversity of types of conflict generated by and affecting the extraction industries. Central government tends to see only conspiracy: anyone promoting or supporting social conflict in a mining area is denounced as an anti-establishment activist, an enemy of development, or

even a supporter of terrorism.¹⁵⁴ This authoritarian attitude has left problems unresolved and exacerbated antagonism. The inadequate and inconsistent management of conflict by the state and its use of political repression could trigger the emergence of more articulate national social movements. On the other hand, social movements have a propensity to think of mining conflicts simply in terms of coherent resistance to exploitative capitalist forces and environmental destruction. Both interpretations are misleading and not very helpful when it comes to policymaking. The results of my research highlight three aspects that give a better understanding of the dynamics of the social conflict surrounding mining in contemporary Peru.

First, the continued emphasis given to anti-mining disputes between local communities and mining companies is misplaced. These were emblematic, but are no longer the most numerous. There are other significant causes of conflict located around mining. Second, the frequency of conflicts in mining areas in large part reflects the structure of national politics in Peru; notably, the incentive for local politicians to pursue purely locally focused, short-term strategies, and the inability of the national government to establish sufficient autonomy from mining capital for it to act as a legitimate arbiter of the national interests. And finally, mining companies' adoption of policies of corporate social responsibility cannot eliminate local disputes in mining areas. In some cases, the misuse of resources helps to reconcile opposing forces in the short term, but it paves the way for new and more complex disputes in the long term. Moreover, in the context of a commodity boom, many conflicts arise independently of company behaviour towards the local population. The size of the operation and the rent that is generated matters as much as the company's behaviour. For best practices to be effective, they have to go beyond corporate social responsibility tenets to embrace a real transformation of the relationship between the companies, the communities around the mines, sub-national governments, and the national polity.

To conclude this chapter, it is important to reflect briefly on the outcomes of these conflicts. Most analyses of conflicts in Peru assume that they constitute a negative factor, hindering economic development. Needless to say, government, business associations and the IFI prioritise stability over all else. In a more dialectic vein,

¹⁵⁴ This is the recurrent government message in the media, and was confirmed in an interview with a representative of the Office of the Prime Minister (April 2008).

Bebbington and Bury (2009) argue that conflict around mining in Peru demonstrates the capacity to offset asymmetries of power and to bring about institutional change. In this sense, conflict should be taken as a necessary step to a more inclusive polity.

My research both supports *and* challenges these views. I find that conflict helps local communities gain leverage in negotiations with the state and the mining companies, and that the introduction of the NEIS was the official response to previous popular demands. Additionally, in this chapter I have shown that the implementation of the NEIS has given communities more muscle in their negotiations with the mining companies.

However, the Peruvian case also shows that the institutional change induced by conflict is neither beneficial nor conducive to further improving policy. To underscore this point, I have been able to distinguish between three different types of conflict. Some disputes, such as those of the Awajun and in Piura, still constitute a genuine opposition to new operations. This kind of conflict retains its potential to challenge the status quo around mining, demanding substantive institutional modifications, such as the legal recognition of popular consultation and the exceptional status of indigenous territories. Yet, while these conflicts are potentially the most constructive, official responses to them have intensified political repression, a reflection of the political interest of the companies and central government and sectors of the national elite who want a quick fix to guarantee a hugely profitable extraction industry. In light of this only an alliance of local groups with links to national and international organisations stands any chance of making protest and opposition successful and, hopefully, less painful.

Conversely, disputes over the control of rent – which were the most widespread type of conflict between 2005 and 2008 – have more limited potential for generating positive changes in the management of the extraction industries. In fact, the implementation of the NEIS has reduced the potential constructiveness of social conflict. It has increased the number of conflicts whilst, at the same time, creating an incentive structure that means protestors seek concrete and immediate benefits rather than any change to regulations or governance. Indeed, the introduction of important financial benefits for mining jurisdictions has blocked a wider revision of the extraction agenda in Peru. Furthermore, as the following chapters will illustrate,

these new types of conflict are at least partially responsible for the failure of municipal and regional authorities to transform the surging flow of *canon minero* transfers into tangible developmental outcomes.

Chapter 7

Fiscal transfers and local welfare

I have shown in Chapters 5 and 6 that in Peru the implementation of the New Extractive Industry Strategy (NEIS) has led to social conflict. Before making any judgment about the overall impact and desirability of the NEIS generally or of the *canon* transfers more specifically, it is necessary to look at other possible impacts of these policies. If levels of material and social welfare have increased in mining regions and municipalities (relative to non-mining jurisdictions) as a result of the implementation of the NEIS, there is at least a question of trade-offs between different objectives to consider. Conversely, if there is no evidence of local improvements in material and social welfare in mining areas, then the whole NEIS is clearly very questionable.

Has the NEIS led to any detectable change in the levels of social and material welfare in mining areas? That is the question I set out to answer in this chapter. The answer is a relatively clear no. At the levels where I had adequate data to undertake a statistical analysis, I could find no clear or consistent evidence that levels of either (i) mining activity or (ii) *canon minero* transfers affected material and social welfare in the mining areas – either negatively or positively. In some ways this is a slightly encouraging finding. I begin, in Section 7.1, with a review of the existing evidence from Peru and elsewhere about the effect of mining on social and material welfare. There are reasons to believe that mining sometimes leads to deterioration in levels of social and material welfare. The fact that I found little evidence of adverse impacts is therefore positive. However, my main concern is with the impact of the implementation of NEIS. I found no evidence of any positive impacts on levels of material and social welfare to offset the conflict-inducing effect of NEIS that I have explained in earlier chapters.

It is relatively easy to summarise the overall findings of this chapter. The explanation of the analytic and statistical procedures I followed to reach these conclusions is, unfortunately, rather complex. I do not have access to all the data that I would wish to have. The explanation of how I made the best use of what is available becomes a little tortuous. The details are in Sections 7.2 and 7.3. I

provide some summary guidance here on how I dealt with the three main methodological challenges.

First, at which ‘local level’ did I look for impacts? I have only two choices because of the ways in which the official data are made available: at the municipal and the regional levels. Both regional and municipal governments receive *canon minero* transfers. There are both advantages and disadvantages of using information relating to one level rather than the other. More data are available at the regional level, especially on annual variations in welfare indicators and GDP by economic sectors. But some mining regions such as Ancash, Cajamarca and Cusco are large. The local impacts of mining might not be evident from data that relate to whole regions. By contrast, data is scarcer at municipal level, but more likely accurately to capture the local effects of mining. This is especially true of the per capita levels of *canon minero* transfers: these vary more widely between municipalities than between regions. Further, municipal governments receive a larger share of total *canon* transfers than do regional governments (Table 7.1). I would expect the impacts of *canon minero* transfers to be more intense and visible at municipal level. I undertook analyses at both levels, using whatever data sets were available and appropriate to testing my hypotheses.

Table 7.1 Distribution of actual public capital expenditure according to different levels of government (2001-2008)

Year	2001	2002	2003	2004	2005	2006	2007	2008
Central ^a	79%	75%	81%	53%	52%	47%	39%	33%
Regional				14%	17%	16%	22%	20%
Municipal ^b	21%	25%	19%	33%	32%	37%	39%	47%
Total (PEN millions)	5,297	4,760	7,056	6,185	7,097	10,252	12,189	15,059

^a Until 2003, the central government included regionally decentralised structures that in 2004 were incorporated into the regional governments.

^b The municipal level only included the municipalities with information available for each year that is, numbers 1636, 1611, 1678, 1704, 1735, 1732, 1759 and 1832 of the total 1834 Peruvian municipalities.

Source: (Ministerio de Economía y Finanzas, 2010); adapted by the author.

Second, methodological problems arise because regardless of the choice of level of sub-national government, mining can affect social and material welfare in the localities where it takes place through several different channels. Even at a high level of abstraction, three main ones can be distinguished: (i) the direct effects on the local economy of mining employment and local commercial purchases of other

services and goods; (ii) the slightly less direct effects of the local Corporate Social Responsibility (CSR) spending of mining companies; and (iii) the indirect effects of the Peruvian fiscal transfer system, which returns large revenues to the sub-national governments in the mining areas, especially the municipalities, in the form of *canon minero* transfers. Ideally, I should have data on each of those channels and be able to examine separately their effects on social and material welfare. According to the way I have defined the concept (Chapter 1), NEIS encompasses financial transfers through both the last two channels listed: companies' CSR spending and *canon minero* transfers. But I have good data neither on companies' total CSR expenditure nor for what the funds are actually used for. I can only test statistically for the effect of *canon* transfers. The statistical analysis presented below embodies an assumption that the level of *canon* transfers to sub-national governments is a reasonable proxy for the varying amounts of CSR expenditure made within those same jurisdictions, over space and time. It probably does not matter if this assumption is incorrect because the total volume of *canon* transfers is so large relative to total CSR spending that the former is likely to have the biggest impact.¹⁵⁵ I can only test for the impacts of two channels through which mining might affect local social and material welfare: (i) the direct impacts of mining employment and other commercial spending by mining companies and their suppliers; and (ii) *canon minero* transfers.

My third challenge was to find a way of assessing the effects on local social and material welfare of increased *canon minero* transfers while holding constant the local commercial effects of mining. I dealt with this as best I could in the regional level analysis (Section 7.2). In a series of regressions that explore the determinants of (i) the rate of annual economic growth, (ii) poverty reduction, (iii) changes in the availability of drinking water and sanitation facilities, and (iv) variation in rates of school attendance at two different ages, I simultaneously used as independent variables (i) per capita levels of *canon minero* transfers to regional and municipal governments and (ii) two other variables that stand as proxies for the importance of mining and its annual changes within the regional economy. These results imply that neither mining activities nor the levels of *canon* transfers have had a significant

¹⁵⁵ In 2007 while total *canon* transfers amounted to USD 1,617 million, mining companies' actual spending on social projects did not exceed USD 80 million (Antamina, 2008, 2009; Grupo Propuesta Ciudadana, 2008; Ministerio de Economía y Finanzas, 2010; Ministerio de Energía y Minas, 2010b, 2010c).

impact on these economic and welfare indicators. Unfortunately, no data is available to allow a similar analysis at municipal level. I find in Section 7.3 that larger per capita volumes of *canon minero* transfers over the period 2001-2007 do not correlate with higher levels of improvement in indicators of social and material welfare at municipal level. This finding is consistent with the regional results: either *canon* transfers did not have positive effects or their beneficial effects could not compensate for the adverse effects of mining.

The bulk of this chapter comprises detailed presentations of the statistical analyses I conducted, and the results, first, at regional level (Section 7.2) and then municipal level (Section 7.3). First, I survey the relevant literature on the impact of mining on local material and social welfare.

7.1 What does the literature say about development in mining and oil regions?

In the early 2000s, the International Council on Minerals and Metals (ICMM) in collaboration with the World Bank commissioned the Mining, Minerals and Sustainable Development (MMSD) research project. The project aimed to offer an independent assessment of the social impact of mines on their surrounding communities. Specific papers on the topic (Mate, 2002) and the final report (IIED, 2002: 198-230) highlighted the poor historical record of the mining industry in promoting local development. Understandably, after these initial findings, corporate-sponsored research shifted rapidly towards a more policy oriented perspective. The ICMM launched the Resource Endowment Initiative (REI) (ICMM, 2010b) to have a better understanding of the policies that the mining industry, governments and development agencies should pursue to increase the positive impacts of mines. In 2008, a paper summarising the findings of the first four years of the REI proposed “greater decentralisation accompanied by improvement in municipal governments’ capacity” and “partnerships between all concerned stakeholders” as the way forward “to enhance the positive impacts from mining” (McPhail, 2008:6). The ICMM had already advanced similar recommendations in its analysis of the Peruvian case (ICMM, 2007). The country case study reaffirmed that decentralisation, capacity building at regional and municipal level, and a more proactive role for the mining companies were the key to improving the development performance of mining. It fully endorsed the NEIS.

In addition to this politically influential corporate-led research, there has been some relevant academic work on the topic investigating the extent to which mineral-rich sub-national jurisdictions benefit from extractive activities in terms of economic growth and improvement in welfare indicators through one or more of the three channels discussed in the introduction to this chapter: backward and forward linkages of mining to the wider local economy; the investment of revenue accruing to sub-national governments; and the implementation of CSR projects. Scholars have followed different research strategies. Some have undertaken a comparative analysis across sub-national units in a given country, while others have used particular case studies to understand some of the mechanisms through which mining affects economic and social outcomes.

Some scholars have focused on the potential of big mining companies to be the catalysts of local development through the promotion of local businesses and the linkages between mining activities and the broader local economy. Wise & Shtylla (2007) claim that mining could have important positive effects on the local economy through the promotion of local businesses and propose a set of policies to enhance companies' performance in that area. Also, in this more speculative vein, Auty (2006) proposes that the enclave nature of mining operations can be used to promote a dual track reform strategy similar to the early economic reform zones operating in some countries:

Rapid growth of directly productive investment within the mineral region can help build a dynamic market sector that eventually absorbs unproductive labour and capital [...] In addition, it builds a political constituency for reform to take on the rent seeking interests (p. 143).

Most of the scholars that have done empirical research on the actual impact of mining are less optimistic. They find that the potentially positive spill over effects from mining to other sectors of the local economy have not materialised because linkages between modern mining operations and the economy of the host regions are very weak or/and because mining has negative effects on other economic sectors (Bridge, 2008; Bury, 2007; Caselli & Michaels, 2009; Nylandsted, Yankson, & Fold, 2009).

The work of Aragón and Rud (2009) represents an exception to these negative findings. They claim that the activity of the Yanacocha gold mine in the Peruvian region of Cajamarca improved welfare indicators in the households surrounding the

mine during the period 1997-2006. This positive impact correlated to household proximity to the operation and was generated by the mine's backward linkages to the local economy, through the activation of the local market for agricultural products.¹⁵⁶

Transfer of mining revenue to sub-national governments is the second channel through which mining jurisdictions can benefit from extraction activities. Assessing the impact of these transfers is not straightforward because it is necessary to analyse two questions. The first is whether mining regions develop more than the others, and second, whether and how this is affected by the use of public revenues derived from mining. To my knowledge, only two papers have so far addressed these related questions through a comparative investigation of the economic and social performance of mineral-rich and mineral-poor sub-national jurisdictions within a given country. Goldber and colleagues (2008) using a data set for the U.S. from 1929 to 2002, conclude that resource dependence leads to slower economic growth and poorer developmental performance. They qualify these conclusions through case studies of Louisiana and Texas. They find that oil revenue was responsible for these negatives results. Incumbent politicians in those states used oil rents to maintain direct taxes low and to purchase clientelistic support. In this way they raised the likelihood of remaining in power while reducing political competition and the quality of policies.

In a similar vein, Caselli and Michaels (2009) do not find that oil exploitation had any positive significant impact on economic growth and social indicators in Brazilian municipalities. Analysing the different influence of both on-shore and off-shore oilfields they claim that oil revenue transfers to oil producer municipalities did not generate positive outcomes. Although the authors do not reach conclusive results about the causal mechanisms behind this poor performance, they point to corruption as the likeliest cause. This lack of developmental success in resource-rich North American states and Brazilian municipalities are consistent with recent research highlighting how rentier regions within fiscally decentralised countries tend

¹⁵⁶ Despite the econometric sophistication of the paper, there are at least two important caveats to their arguments. First, some of the indicators, for example the subjective valuation of house rental prices, do not capture any real improvement in the population's welfare. Second, the sample households used in the research is not statistically representative of all the households in the concentric circles which the study divided the region around the mine.

to suffer political distortions leading to clientelism and poor quality policies (Desai, Freinkman, & Goldberg, 2005; Freinkman & Plekhanov, 2009; Gervasoni, 2010).

CSR spending is the third potential mechanism through which the presence of mining companies might promote local development. Oil and mining companies have recently repackaged their CSR schemes as 'local partnerships'. They aim to transform their conventional charitable practices into more collaborative processes in which local communities and sub-national governments have a say in deciding the projects to be implemented (Hamann, 2004). Despite these good intentions, research into the real impact of CSR does not support an optimistic view of its developmental record in the oil and mining sector. Frynas (2005) argues that corporate interests frequently drive the design and implementation of CSR interventions in the oil sector in Nigeria. He claims that "profit maximising motives are often incompatible with good development practice" (p. 598). Idemudia (2007) also analyses the Nigerian case and concludes that corporate partnerships to foster local development in oil communities are greatly limited because their activities do not counteract the negative impacts of the operations on the surrounding areas. Similarly Hamann and Paul (2004) find that CSR schemes do not generate significant positive changes in the mining sector in Southern Africa and make the case for greater corporate accountability.

Other authors focus their criticism on the fact that scaling up CSR does not help to overcome the absence of the state apparatus in the territories where extraction occurs. Case studies in Papua New Guinea (Filer, Burton, & Banks, 2008) and Australia (Cheshire, 2010) show that mining companies act frequently as "shadow states" in the countryside. Discourse about partnerships frequently hinders the assumption of a state-like role by the mining companies in the vicinity of mining and oil operations. These authors claim that these arrangements are neither conducive to local development nor sustainable in the long term.

In the case of Peru, there are two studies comparing welfare indicators in mining and non-mining areas. However, both are in terms of the aggregate impact of mining and make no attempt to differentiate between the different channels through which mining might affect local levels of welfare. De Echave and Torres (2005) find that mining regions have higher levels of poverty than non-mining regions, but their methodology does not allow them to test whether mining is the real cause of this correlation. Zegarra, Orihuela and Paredes, (2007) use Propensity Score Matching

(PSM) to compare welfare and income indicators in households of mining and non-mining municipalities. Due to limitations in data availability they reduced the scope of their study and compare only Andean households using data from the National Household Survey for 2003-2004 – just before the mineral prices boom and its related increase in *canon* transfers –. They found different results in rural and urban settings. Urban households in mining municipalities had higher incomes than those in non-mining municipalities. This positive ‘income’ effect of mining did not exist in rural households. However, the proportions of urban households served by piped drinking water supplies and sanitation facilities were lower in mining municipalities.

My research relates to this literature in three different ways. First my quantitative analysis of regional and municipal socioeconomic indicators (this chapter) confirms previous findings about the lack of positive results of mining revenue transfers to sub-national governments. Second, I complement previous studies by providing evidence on the dynamics explaining the inefficient use of mining revenues at municipal level (Chapter 8). In particular, I show that the implementation of the NEIS has reinforced incentives to use the money for short-term particular objectives, including corruption, in some cases. Finally, my research highlights the importance of political factors in determining how resource revenues are used by sub-national governments. This helps correct the statements of government and company spokesmen, who talk constantly of an alleged lack of technical capacity within sub-national governments to handle increased revenues effectively.

7.2 Regional level analysis

The NEIS was shaped during 2002-2008, at the beginning of a six year boom in global commodity prices. The profits of the mining companies, the taxes they paid to the central government and the levels of *canon minero* transfers to sub-national governments all increased considerably over this period. If either (i) mining activity in general or (ii) the NEIS were to have beneficial effects on social and material welfare in mining areas, clear increases in the welfare indicators over this period should be observable. In this section I examine the extent to which this was true at the regional level.

The things I am setting out to explain – my dependent variables – are variations in six indicators of material and social welfare across Peru’s 24 regions during the

period 2002-2008.¹⁵⁷ Using multiple regression analysis, I explore whether these are explained in a statistical sense by variations in one or more of three variables that indicate either the levels or the profits of mining activity. The dependent variables are:

- (i) *The annual rate of GDP growth* at regional level excluding mining activities. This is a proxy for the dynamism of economic sectors other than mining. I calculated it using the sectorally disaggregated data of regional GDP at constant prices of 1994 provided by the National Institute of Computing and Statistics (NICS) (INEI, 2009d).¹⁵⁸ From 2002 to 2008 this indicator grew annually by an average of 6 per cent.
- (ii) *The annual variation in poverty* measured as a percentage of the regional population below the poverty line.¹⁵⁹ During the period 2002–2008 the average poverty level for all the regions dropped from 59.4 per cent to 42.3 per cent. The figure fell by an average of 2.9 percentage points per year.
- (iii) *The annual variation in percentage of population with access to drinking water* according to the National Household Survey (INEI, 2009c).¹⁶⁰ The average percentage of people with access to drinking water at regional level dropped from 61.5 per cent in 2003 to 59.7 per cent in 2008. This represents an average annual decrease of 0.4 percentage points in coverage.
- (iv) *The annual variation in percentage of population with sanitation facilities at home* according to the National Household Survey (INEI, 2009c). From 2003 to 2008 the average sanitation coverage rate for the 24 regions of the panel increased from 36.9 to 42.8 per cent, with an average yearly improvement of 1.2 percentage points.
- (v) *The annual variation in school attendance rate (percentage) of children between 3 and 5 years* according to the National Household Survey (INEI, 2009c). The average annual attendance rate at regional level increased from 48.5 per cent

¹⁵⁷ I excluded Callao from the panel because it can be considered part of the Lima metropolitan area.

¹⁵⁸ The NICS used a value-added approach to calculate regional GDP by sectors.

¹⁵⁹ The poverty line is defined in terms of income according to a region-specific variable benchmark. In Peru, since 1995, the NICS conducts household surveys that provide very detailed data on a wide range of issues. In 2003 a change in the methodology allowed statistical inferences to be made from the annual compilation of this data with validity at regional level.

¹⁶⁰ This indicator comprises people with drinking water at home and those who access to some form of communal service.

in 2003 to 63.1 per cent in 2008, representing an annual improvement of 2.1 percentage points.

- (vi) *The annual variation in school attendance rate (percentage) of children between 12 and 16 years* according to the National Household Survey (INEI, 2009c). The average annual attendance rates improved from 66 to 72.7 per cent during the period 2003-2008, with an average annual improvement of 1 percentage point.

All these dependent variables are indicators of annual change. Dealing with this type of variable, econometricians tend to use average measures for a group of years to mitigate the ‘noise’ associated with short-term variations. In this case, due to the short period of study I decided to use year-by-year changes as variables. I assume that the advantage of keeping a larger number of observations exceeds the benefits of the aggregation because the information can be used more effectively.

The first two of my three independent variables are relatively direct measures of variations in levels of mining activity while the third, the level of *canon minero* transfers, reflects the indirect impact of mining through the implementation of the NEIS. Each indicator captures a distinctively different aspect of the general concept of the importance of mining in the regional economy:

- (i) The variable *Mining as a percentage of total regional GDP at constant prices of 1994* is a proxy for the general importance of mining activity within the regional economy. The actual cost of production per unit of output can vary considerably between mines. In general, the cost is much lower for large modern capital-intensive mines than for smaller and artisan mines. Because this indicator takes no account of cost variations, it is unlikely to be a good indicator of the relative importance in different regions of mining profits and rents. Accordingly, it does not significantly correlate with the level of *canon minero* transfers to regions.
- (ii) The variable *Index of annual variation of mining GDP* measures something different again: the change from year to year in the proportion of regional GDP contributed by mining weighted according to the general importance of mining to the regional economy (in percentage of GDP). It is a dynamic measure that captures the economic importance of annual variations in mining activities
- (iii) The third independent variable is the logarithm of annual per capita *canon minero* transfers at current value going to the regional government and

municipalities in each region.¹⁶¹ More than the previous two variables, it reflects changes in the levels of rents made available from mining activities, although it accounts for only a modest proportion of total rents in the period in question: most went to the mining companies. I also use this variable as a proxy for the implementation of the NEIS.

I computed the models using Random Effects (RE) panel regression specifications.¹⁶² I tested the robustness of the results by running a simple Ordinary Least Squared (OLS) regression introducing year dummies to control for year effects and computing robust standard errors.¹⁶³ This second specification did not change either the sign or the statistical significance of the estimates. Appendix VII contains detailed information of the various model specifications, the control variables I employed and the statistical results, while Appendix VIII summarises the data set.

In Appendix VII, I take the dependent variables as the main thread to present the results of the regressions. In each section of the Appendix I analyse the effect of the three mining-related independent variables and the other control variables on each of the six dependent variables in turn. Here I take a different approach in summarising the results. I take the three independent mining-related variables and summarise separately their statistical effects on the dependent variables. This procedure helps to differentiate between the impact of mining per se from the more specific impact of the *canon minero* transfers. Table 7.2 summarises the regression results of the data presented in Appendix VII.

The first two variables are most likely to capture any positive effect of mining on the local economy through commercial channels: labour, and the local purchase of other services and supplies. The fact that they have no identifiable effects on the level of local economic and welfare indicators runs contrary to official and corporate propaganda. It is, however, no surprise. The literature encourages us to be sceptical (Section 7.1 above).

¹⁶¹ I have applied logarithms to this variable to avoid extreme values of *canon* transfers driving the regression.

¹⁶² The use of RE with the option 'r' in STATA is the best way of dealing with the problems of serial correlation and heteroskedasticity present in the panel.

¹⁶³ This specification is appropriate because serial autocorrelation causes less severe distortions in the estimates in panels with short temporal series (Wooldridge, 2002:276).

Table 7.2 Summary of panel regressions of mining-related variables on the annual change in economic and welfare indicators in Peruvian regions^a

Mining-related independent variables →		Mining as percentage of regional GDP ^b	Index of annual variation in mining GDP ^b	Log of <i>canon minero</i> per capita ^c
Dependent variables: ↓	Period			
1. Annual rate of regional GDP growth excluding mining activities	2002-2008	nss (no statistical significance)	nss	nss
2. Annual variation in poverty rates	2004-2008	nss	nss	nss
3. Annual variation in drinking water coverage	2004-2008	nss	nss	nss
4. Annual variation in sanitation facilities at home	2004-2008	nss	nss	nss
5. Annual variation in rate of school attendance 3-5 years old	2004-2008	nss	nss	nss
6. Annual variation in rate of school attendance 12-16 years old	2004-2008	nss	nss	(+++)

^a This summary only reports as significant those results that are robust according to alternative specifications (see Appendix VII).

^b These variable are lagged one year in the models testing the dependent variables nº 3, 4, 5, and 6.

^c This variable is lagged one year in the models testing the dependent variables nº 2, 3, 4, 5, and 6.

(nss) the variable does not have a statistically significant effect on the dependent variable

(+++) positively significant at 1% level.

During my field research I learnt that local economies can provide neither a highly skilled workforce nor the sophisticated technology demanded by the mines. Very few local people hold the qualifications required to be hired by the mining companies. Moreover, modern miners tend to keep their families and their homes in the big cities, away from the mining areas. They typically work for two weeks and then have a break, and live in the mining areas only when working. Often even the food supplies for mining staff are sourced from companies in the big cities because local foodstuffs do not meet the quality standards fixed in labour agreements.¹⁶⁴ This means that in most cases the outsourcing of some marginal tasks to small community enterprises is the only direct linkage to the local economy.¹⁶⁵

My statistical analysis unearthed only a single trace of any impact of annual changes in the mining-related (independent) variables on indicators of material and social welfare. While correlating with no other welfare indicators, changes in the

¹⁶⁴ I confirmed this information for Antamina, Pierina and Cuajone with the managers of the mines.

¹⁶⁵ There are some exceptions such as the communities of Rancas and Huaraucaca in Pasco, which have important community enterprises (see Chapter 6).

level of *canon minero* transfers to sub-national governments did have a positive effect on the rate of school attendance of children between 12 and 16 years old.¹⁶⁶ There are two possible explanations. The first is that increased *canon* transfers lead to improved education provision, e.g. through the renovation of school buildings, the construction of new schools in remote areas, and the provision of better travelling and lodging services and training for teachers. I am sceptical. Why do we not see similar positive effects on the school attendance of children aged 3-5 years old? The alternative explanation is that the perceived vibrancy of the mining sector generated an increased demand for secondary education for young people hoping for a job in the mining business. A local researcher in Cerro de Pasco called this phenomenon the ‘dream of the white helmet’ (Ramos, 2005). The government and the mining companies reinforce these ideas through public campaigns highlighting the importance of education. My interaction with local people during my travels in the mining regions leads me to think that both supply and demand side factors were at work simultaneously.

But, overall, these results indicate mining has had very little positive local impact. Might I be wrong?

Most defenders of the development potential of mining would argue that the impact of increased activity and of *canon* transfers is likely to show up in the figures only in the long term. That is a plausible argument, but one would still expect to see some positive effects from the big increase in profits over the period I am considering. A second caveat relates to the fact that I have done the analysis at regional level. Any positive effects of mining highly concentrated in the immediate vicinity of mines might be so diluted in regional figures that they would not show up in a statistical analysis. I shift in Section 7.3 to a more local level and longer term analysis. As I explain below, this does not significantly change the conclusions.

7.3 Municipal level analysis

Lack of systematic data is the main limitation when undertaking comparative economic and political analysis at municipal level. Fortunately, my research coincided with the detailed publication of the national census of 2007, which contains demographic and social data aggregated at municipal level for the entire population of the country (INEI, 2008a). The methodology used in this census was

¹⁶⁶ According to the Peruvian political constitution of 1993, secondary education is compulsory and free for teenagers between 12 and 16 years of age.

similar to the previous one carried out in 1993. The existence of homogeneous information for 1993 and 2007 permits a neat comparison of the change in some welfare indicators over this period. I used this information to analyse differences between *canon*-poor and *canon*-rich municipalities through change in the following indicators:¹⁶⁷ (i) percentage of people between 15 and 24 years old who finished secondary education;¹⁶⁸ (ii) percentage of households with drinking water at home; (iii) percentage of households with sanitation facilities at home; and (iv) percentage of households with an electricity supply at home.¹⁶⁹

Municipal governments have responsibility for the provision of water supply and sanitation infrastructure, while they share responsibility with other levels of government for the provision of education and electricity.¹⁷⁰ Assuming that the increase in *canon* transfers after 2003 was the most important single factor influencing the capacity of municipal governments to deliver services to their citizens, it is reasonable to think that municipalities receiving a high volume of *canon* transfers per capita should have improved their welfare indicators more than the others in the period 1993-2007. Moreover, considering that *canon*-rich municipalities are the closest to the mines and the gas and oil wells, they could also benefit from any positive spill over effects of mining activity.

The results of the comparison show that most of the welfare indicators did not improve more in municipalities receiving large amount of *canon* transfers than in their comparables 'poor' municipalities. On the contrary, access to drinking water at home tended to worsen in *canon*-rich municipalities in comparison to other municipalities. In the rest of this section first, I present briefly how I have used Propensity Score Matching (PSM) methods to undertake the comparison; second, I discuss the results of the analysis; and third, I check the robustness and some regional variations in the results.

¹⁶⁷ I incorporate into the analysis all types of *canon* transfers because a few municipalities received substantial transfer relating to the exploitation of oil and gas. The municipalities spend these revenues in the same way as *canon minero* transfers.

¹⁶⁸ I analyse the change in the population between 15 and 24 years old because this indicator has been more sensitive to any improvement in the quality of services in most recent years, minimising the inertia of the indicators when older generations are taking into consideration.

¹⁶⁹ Appendix IX presents a summary of the descriptive statistics of all the variables used in the analysis.

¹⁷⁰ I discuss more widely the distribution of responsibilities among levels of government in Chapter 8.

7.3.1 The application of propensity score matching methods

Comparing the change in welfare indicators from 1993 to 2007 in *canon*-rich and *canon*-poor municipalities is not a straightforward task. The 1,834 Peruvian municipalities are highly diverse. The existence of extraction activities is only one of the multiple features that might generate differences between them, so I need to compare *canon*-rich municipalities with those that are similar in all other ways except the level of *canon* transfers. Among the available data I chose to match *canon*-rich and *canon*-poor municipalities that have the following similar features:

- (i) A similar population size in 1993 because this might correlate with different economic and institutional factors affecting any improvement or decline in the indicators.
- (ii) Percentage of the rural population in 2007. Usually it is more difficult to improve the coverage and the quality of public services in rural settings.
- (iii) Percentage of literate population in 1993 as a general indicator of education level at the beginning of the period.
- (iv) Percentage of indigenous population in 2007 (i.e. those whose mother tongue is not Spanish) to control for ethnical bias in the provision of services.
- (v) Altitude of the district capital because different authors have hypothesised altitude has an effect on economic and social development in Peruvian municipalities (Escobal & Torero, 2003; Santillana, 2006: 54-55).

In addition, I controlled for the initial level of the indicators whose changes I wanted to evaluate:

- (vi) Percentage of people between 15 and 24 years old that had finished secondary education in 1993.
- (vii) Percentage of households with drinking water at home in 1993.
- (viii) Percentage of households with sanitation facilities at home in 1993.
- (ix) Percentage of households with an electricity supply at home in 1993.

I use PSM to make the comparison. PSM is a relatively new econometric tool that finds within a large group of ‘non-treated’ individuals those who are similar to the ‘treated’ group in all relevant pre-treatment characteristics (Guo & Fraser, 2010).¹⁷¹ In this case, the treatment is ‘receiving high levels of *canon* transfers’.

¹⁷¹ Rosenbaum and Rubin pioneered this method in 1983. The basic logic behind the method is to use any standard parametric regression (for example, logit or probit) to calculate the probability of being in the treatment group given that an observation has a determined set of

I undertook the following steps in the analysis. First I compiled a data set for all the Peruvian municipalities for the four welfare indicators whose changes I wanted to analyse, and the group of control variables that define the similarity between the municipalities.¹⁷² I also included data on *canon* transfers to the municipal governments during the period 2001-2007. I ‘cleaned’ up this data set by deleting the municipalities that were created after 1993 and those whose boundaries changed after that year because their results in the two censuses were not comparable. I also deleted those municipalities that did not have information about *canon* transfers for three or more years between 2001-2007, and those that did not have the same information for two years during the period 2005-2007.¹⁷³ I also excluded from the comparison the districts of Lima, and municipalities over 200,000 or below 1,500 inhabitants in 2007.¹⁷⁴ After the clean up, the set contained data for 1,350 municipalities out of the 1,834 in the whole country.

The selection of the ‘treated’ and ‘untreated’ municipalities was the second step in the analysis. I selected as ‘treated’ municipalities that received *canon* transfers per capita above PEN 2,100 between 2001 and 2007. There were 97 municipalities. Figure 7.1 shows a map with the municipalities included in the analysis according to the level of *canon* transfers that they received.

Finally, I compared these 97 municipalities and the other 1,253 using four different matching algorithms (Becker & Ichino, 2002): (i) the *nearest neighbour* algorithm matches each *canon*-rich municipality to the *canon*-poor municipality with the closest propensity score; (ii) the *radius* method uses a tolerance level of the maximum propensity score distance (calliper) to match each *canon*-rich municipality to all *canon*-poor municipalities within the calliper, in this case 0.001; (iii) the *Kernel* algorithm compares each *canon*-rich municipality to a weighted average of all the *canon*-rich municipalities according to the distance of their propensity scores; the closer their score, the greater the weight; and, (iv) the *stratification* method divides all the propensity scores into a set of strata and

values for the N variables to be controlled for. The parametric regression reduces the covariates of all the control variables to a scalar propensity score valued between 0 and 1. The closer this propensity score is for two observations, the greater their similarity to the set of control variables.

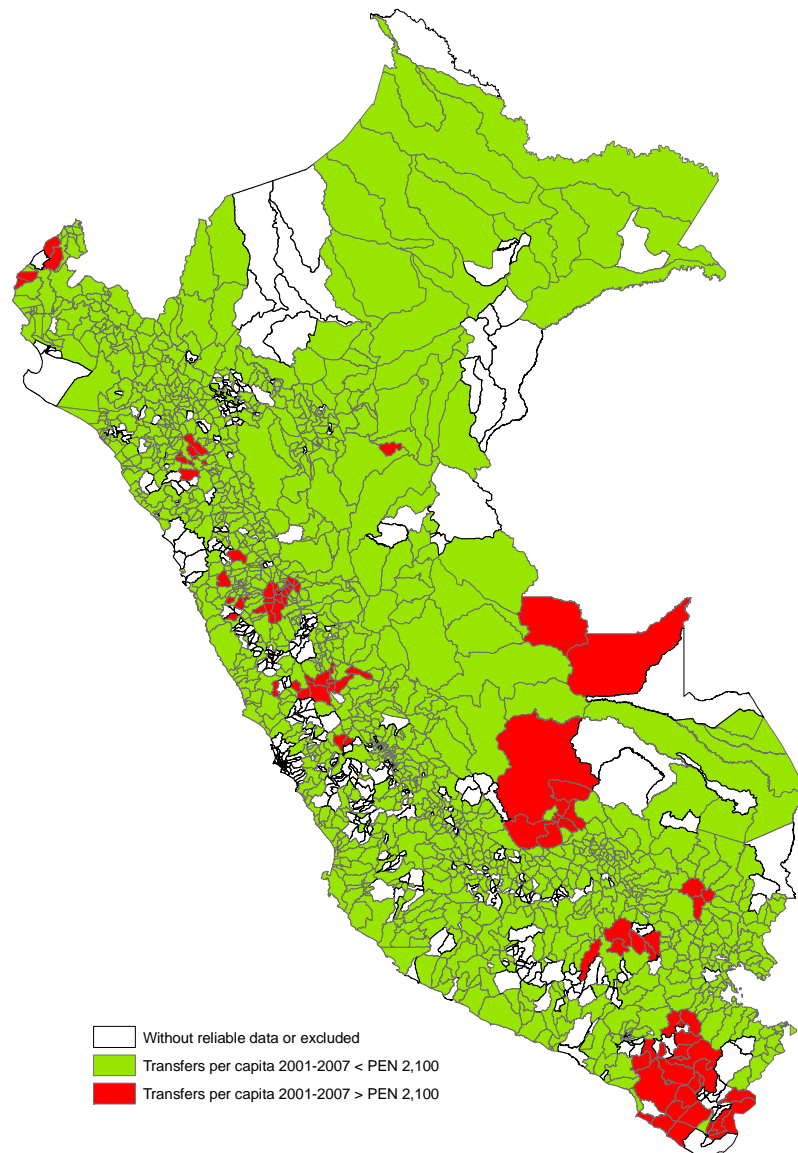
¹⁷² All this data comes from the national censuses of 1993 and 2007.

¹⁷³ These differences are due to the importance of the period 2005-2007 in which *canon* transfers increased dramatically.

¹⁷⁴ I excluded municipalities with less than 1,500 inhabitants because they had very large changes in the indicators over time but these affected relatively few people.

compares *canon*-rich and *canon*-poor municipalities belonging to the same strata. These four methods differ in their trade-offs between quality and quantity of the matches. None is a priori superior to the others, and the joint consideration of the four offers a way to assess the robustness of the estimates (Becker & Ichino, 2002:361-362).

Figure 7.1 Map of Peruvian districts according to different levels of total *canon* transfers per capita during the period 2001-2007



Elaboration: the author

I computed the PSM in STATA using the *pscore*, *attnd*, *attr*, *attk* and *atts* programs.¹⁷⁵ For each of the four different algorithms, the software calculates the average effect on the treated – in this case the average difference in the change in welfare indicators between *canon*-rich and *canon*-poor municipalities –, the standard error, and the t-statistics.¹⁷⁶

I selected the common support region option to restrict the analysis of the balancing property¹⁷⁷ to all the *canon*-rich municipalities plus the *canon*-poor ones in the region of common support.¹⁷⁸ In this case, this restriction excluded only 49 *canon*-poor municipalities.

7.3.2 *The results: canon transfers had very little impact*

The change between 1993 and 2007 in the percentage of people between 15 and 24 years old who finished secondary education is the first indicator that I used to test the impact of *canon* transfers. Focusing on 15 to 24 years captures the tendency in recent years because it minimises the importance of the historical stock of uneducated people over 24 more likely to be found in rural areas.

For the whole country, the indicator went up by 9 percentage points, from 75 to 84 per cent. However, differences between municipalities varied widely. The average change in the 1,350 municipalities under consideration was 20 points, from 53 to 73 per cent, a drop of 19 points and an improvement of 60 percentage points at the extremes of the spectrum. The comparison of the four PSM algorithms reveals that this indicator went up only by between 0.5 and 1.7 points in *canon*-rich municipalities than in their comparable *canon*-poor municipalities (Table 7.3). This minimal change was not statistically significant.¹⁷⁹ This result shows that mining neither directly nor by means of the *canon* transfers had a significant positive impact on the percentage of youngsters that completed secondary education.

¹⁷⁵ These programs were written by Becker and Ichino, and can be freely downloaded within STATA from <http://www.stata-journal.com/software/sj2-4>

¹⁷⁶ The standard errors are bootstrapped with 100 replications.

¹⁷⁷ For a given propensity score, the exposure to treatment is random and therefore treated and control cases should be - on average - similar regarding the variables on which the matching is based (Becker & Ichino, 2002: 359). I have used a significance level of .01 to test the balancing property.

¹⁷⁸ The common support region is the range of values of the propensity score where the probability of finding treated and non-treated cases is similar.

¹⁷⁹ Given that I am working not with a sample, but with all the Peruvian municipalities fulfilling a set of conditions, the t- statistics is, in fact, a quantifier of the variance of their results and not a sign of the capacity of the results to represent a wider population.

Table 7.3 Estimate of the average effect of high *canon* transfers to Peruvian municipalities (2001-2007) on the change in the percentage of people between 15 and 24 year old with secondary education over the period 1993-2007

Matching estimation method	Nº of <i>canon</i> -rich municipalities (Treated)	Nº of <i>canon</i> -poor municipalities (Controls)	Average effect on the treated	Bootstrapped standard error	t statistic
Nearest neighbour	97	85	.520	1.639	.317
Radius (.001)	92	730	1.775	1.165	1.523
Kernel	97	1204	.663	.811	.818
Stratification	97	1204	.527	1.295	.407

The change in the percentage of households with drinking water supply at home is the second indicator under scrutiny. The provision of water and sanitation facilities lies more clearly within the remit of the municipal governments in Peru. The correct functioning of these services requires not only the initial investment to build the physical infrastructures but the existence of local institutional arrangements that assume responsibility for the management and maintenance of the systems.

At national level, the indicator improved 12 percentage points, from 43 per cent in 1993 to 55 per cent in 2007. The average of the improvement aggregated at municipal level for the 1,350 municipalities in the data set was similar, increasing from 20 to 32 per cent. The range was from a deterioration of 83 points to a maximum improvement of 90 points. According to the PSM analysis, *canon*-rich municipalities tended to improve less in this indicator than their comparable *canon*-poor ones (Table 7.4). However, the estimates for the average effects and the standard errors vary quite widely depending on the method of calculation. According to the nearest neighbour method, *canon*-rich municipalities improved almost 8 points less than their comparable poor group, with relatively high t-statistics. These results are not robust because the other three methods show significantly lower effects – between -2 and -4 points – with proportionately larger standard errors. Nevertheless, the results of the four methods are consistent regarding the average negative effect of *canon* transfers on the expansion of water supply services at municipal level, although it seems that variations between the municipalities are very important. An examination of the nature of these variations demands a complementary test of robustness (see next subsection).

Table 7.4 Estimate of the average effect of high *canon* transfers to Peruvian municipalities (2001-2007) on the change in the percentage of households with drinking water supply at home over the period 1993-2007

Matching estimation method	Nº of <i>canon</i> -rich municipalities (Treated)	Nº of <i>canon</i> -poor municipalities (Controls)	Average effect on the treated	Bootstrapped standard error	t statistic
Nearest neighbour	97	85	-7.735	4.183	-1.849
Radius (.001)	92	730	-3.906	3.044	-1.283
Kernel	97	1204	-2.826	2.773	-1.019
Stratification	97	1204	-1.9651	2.545	-.772

The percentage of Peruvian households with sanitation facilities at home is the third indicator. This increased from 36 to 48 per cent between 1993 and 2007. The change was lower in the 1,350 municipalities considered in this analysis, as the coverage increased from 10 to 18 per cent. The change in these municipalities ranged from a deterioration of 31 point to an improvement of 63 points.

The PSM analysis shows that *canon*-rich municipalities improved their access to sanitation facilities slightly less than the other municipalities between 1993 and 2007. However, these results are neither important nor statistically significant (Table 7.5).

Table 7.5 Estimate of the average effect of high *canon* transfers to Peruvian municipalities (2001-2007) on the change in the percentage of households with sanitation facilities at home over the period 1993-2007

Matching estimation method	Nº of <i>canon</i> -rich municipalities (Treated)	Nº of <i>canon</i> -poor municipalities (Controls)	Average effect on the treated	Bootstrapped standard error	t statistic
Nearest neighbour	97	85	-1.469	1.980	-.742
Radius (.001)	92	730	-.903	1.217	-.742
Kernel	97	1204	-.425	1.178	-.361
Stratification	97	1204	-.037	1.219	-.030

The change in the percentage of households with an electricity supply is the last of the indicators under examination. Private companies are usually the providers of electricity, although sometimes they develop partnership with governments – national, regional and municipal– to facilitate the extension of the national grid to rural areas. Once the grid is in place, the electricity supply requires neither high operational costs nor complex institutions for its management. As the mining companies are the main consumers of electricity, their mere presence facilitates the

supply to neighbouring municipalities because the grid is already very close to them. Not surprisingly, electricity supply is the only service that improved comparatively more in *canon*-rich municipalities.

In 1993, 53 per cent of Peruvian households enjoyed their own electricity supply. The figure had increased to 74 per cent by 2007. The average increase in the 1,350 municipalities in my database was slightly more important, from 26 to 53 per cent. According to the PSM analysis, receiving a large amount of *canon* transfers had a positive impact on the expansion of the service (Table 7.6). The average improvement in *canon*-rich municipalities is between 3 and 7 points higher than in the comparable *canon*-poor municipalities, and at least in three of the methods, the results are statistically significant or close to being significant.

Table 7.6 Estimate of the average effect of high *canon* transfers to Peruvian municipalities (2001-2007) on the change in the percentage of households with electricity supply at home over the period 1993-2007

Matching estimation method	N° of <i>canon</i> -rich municipalities (Treated)	N° of <i>canon</i> -poor municipalities (Controls)	Average effect on the treated	Bootstrapped standard error	t statistic
Nearest neighbour	97	85	2.549	3.477	.733
Radius (.001)	92	730	6.964	2.776	2.508
Kernel	97	1204	4.675	1.874	2.495
Stratification	97	1204	4.436	2.768	1.603

Summarising, so far, the analysis reveals that there were no important differences in the improvement of education and sanitation indicators between *canon*-rich and *canon*-poor municipalities during the period 1993-2007. However, *canon*-rich municipalities tended to perform worse in term of drinking water supplies to the home, and better regarding the expansion of electricity supplies.

These results can be refined. Would the results be different if I chose another benchmark to decide what a *canon*-rich municipality is? Do municipalities in all the regions behave similarly or are there some region-specific differences?

7.3.3 Checking the robustness of the results

I ran two new specifications of the four PSM algorithms to answer these two questions. In the first new specification I raised the *canon* transfer benchmark

identifying the *canon*-rich municipalities to PEN 3,500, thus reducing the number of *canon*-rich municipalities from 97 to 53. In the second specification, I excluded from the analysis the *canon*-rich municipalities of Ancash to see whether the results of this important mining region somewhat drive the results of the overall comparison.¹⁸⁰ I kept the other parameters of these new models similar to the original PSM specification. These new tests show the robustness of the results, but introduce a twist in the history (see tables with the results of the complementary PSM analyse in Appendix X).

Raising the threshold for becoming *canon*-rich municipalities has no important effect on the results. The sign and the statistical significance of the average effect of high *canon* transfers on the change in welfare indicators remain stable. The intensity of the effect varies slightly in the case of the education and electricity coverage indicators, whose positive effect is reinforced – although in the case of change in the percentage of people with secondary education, it is not statistically significant –. This means that the top 53 *canon*-rich municipalities behaved more or less like the wider group of the 97 richest.

The results vary more appreciably when the *canon*-rich municipalities from Ancash are excluded from the analysis. There are no differences regarding the change in the completion of secondary education and the coverage of sanitation facilities but the performance in the other two indicators worsens notably. The percentage of households with drinking water at home increased between 8 and 10 percentage points less in *canon*-rich municipalities outside Ancash than in their comparable municipalities in the country as a whole. Moreover, the strong statistical significance of the result signals a high degree of consistency across the municipalities. Regarding the extension of the electricity supply, the positive effect reported by the original PSM analysis disappears when the *canon*-rich municipalities of Ancash are not taken into account. This means that the overachievement of municipalities in Ancash drove the original results for the change in these two indicators. Once the Ancash effect is discounted, the results for the whole country can be regarded as clearly negative.

¹⁸⁰ I choose Ancash because it has more *canon*-rich municipalities larger than 1,500 inhabitants – 23– and because some studies report that mining has generated positive social outcomes there (ICMM, 2007; Sanborn et al., 2007).

The main findings of this chapter can be summarised as follows:

- (i) At regional level, *canon minero* transfers did not have any significant beneficial effect on either economic growth or the improvement of welfare indicators over the period 2002-2008.
- (ii) At local level, municipalities receiving the highest volumes of *canon* transfers between 2001 and 2007 failed to improve their welfare indicators in the period 1993–2007 to any significantly greater degree than their comparable counterparts. This finding has two corollaries:
 - a. Considering that these municipalities are the closest to large mines or oil and gas wells, the notion that proximity to profitable operations generates positive effects on population welfare can be ruled out.
 - b. Municipal governments receiving a high volume of *canon transfers* have not translated substantial increases in capital investment budgets into well-being for local people.

How can these puzzling results be explained? Chapter 8 addresses directly this question. Given the greater concentration of resources at the municipal level (Table 7.1), the analysis focuses on how municipal governments spent *canon* transfers revenues.

Chapter 8

Why has the New Extractive Industries Strategy (NEIS) failed?

The results discussed in the last chapter present a puzzle: how is it possible that regions and municipalities receiving high volumes of *canon* transfers do not improve the living standards of their inhabitants more than the rest of the country? Why, despite the implementation of the NEIS policy, together with government and company assurances, does the presence of highly profitable mines – and oil and gas wells – not benefit the people living closest to them?

A lack of capacity at sub-national government level to spend *canon* revenue wisely is the prevailing explanation (ICMM, 2007; McPhail, 2008) with the corruption of municipal authorities often cited as a complementary cause.¹⁸¹ Accordingly, capacity building programmes and the promotion of transparency at the local level have become the fashionable response. Mining companies, International Financial Corporation (IFC) and some bilateral aid agencies have bought into these ideas and put forward joint proposals (Aguilar, 2008; MIM, 2010). Some private companies have invested heavily in capacity building. For example, in 2008 alone, Antamina spent USD 4.6 million on capacity building for five municipal governments – Huaraz, Huari, Huarmey, San Marcos and Chavin de Huantar – (Antamina, 2009).

In general, the lack of capacity to spend money wisely is true for most municipalities in the country. But the relevant question here is whether differences in the ways in which sub-national governments spend money correlates with different levels of *canon* transfers. If differences can be shown to really exist, then it is important to understand the causal mechanisms behind them.

The results of my research show a clear divergence from the typical ‘lack of capacity’ narrative. In this chapter, I propose an alternative and, to my mind, more plausible explanation of the poor use of public money. I shall argue that it is the

¹⁸¹ These were the main arguments employed by central government officials, senior mining company managers, international donor representatives and governance consultants in the following interviews: 2008-004 (Lima, 07-04-2008); 2008-023 (Lima, 16-04-2008); 2008-035 (Pasco, 28-04-2008); 2008-83 (Lima, 09-06-2008); 2008-086 (Lima, 11-06-2008); 2008-152 (Lima, 08-08-2008).

combination of high volume of *canon* transfers, centrally imposed unhelpful regulations, pressure for quick spending coming from national government and mining companies, and new forms of participatory governance that provide incentives for municipal authorities to pursue short-term spending strategies. The immediate redistribution of *canon* transfers among the population through the generation of employment in public sector jobs has become the main outcome as well as the main criterion for judging the performance of municipal authorities. Efficient spending for long-term goals has been relegated to secondary importance.

In my analysis I focus on the municipal level, where the largest amounts of *canon* transfers are received. I present the results of my research in four steps. First, I provide an overview of the official decision-making mechanisms for public capital investment in sub-national governments. The difficulties in implementing these centrally imposed regulations at municipal level provide an important background for understanding the processes leading to short-term spending. Second, I analyse the effect of *canon* transfers on actual expenditure patterns across Peruvian municipalities in the period 2005-2008. This demonstrates that *canon* transfers were associated with a lower proportion of expenditure in social sectors and greater spending on stadiums, monuments, decorative pavements, and street furniture. These results suggest that the pattern of revenue allocation lies behind the lack of improvement in welfare indicators in *canon*-rich municipalities. Third, I report on my attempt to check the accuracy of the ‘lack-of-technical-capacity’ argument. I used data collected during my visits to 18 *canon*-rich municipalities to build a Municipal Capacity Index (MCI) and then compared the MCI with data of the percentage of actual budget spending in the same municipalities. I found no correlation between technical and spending capacity. Finally, in the fourth step I sketch out an alternative explanation for the lack of positive results in *canon*-rich municipalities, drawing on case studies from Ancash and Moquegua to show that *canon* transfers, in combination with other local political factors, promoted short-term spending decisions.

8.1. Decision-making mechanisms for public capital investment in sub-national governments

The manner in which municipal and regional governments spent *canon minero* transfers during the period 2003–2008 was strongly influenced by the institutional

framework generated by the decentralisation policy promoted by the Peruvian state. Following the reform of 2002, Peru has three tiers of democratically elected government: the national administration, 25 regional and 1,834 municipal governments.¹⁸² The process of decentralisation transferred financial resources and functional responsibility from the centre to sub-national governments but there was very little devolution of political power. The centre retained legislative capacity¹⁸³ and the national government imposed strict and detailed regulations on how municipal and regional governments could administer their resources. These centrally designed regulations conflict with both the highly diverse local contexts and the central administration's lack of technical and political capacity to effectively enforce them. Hence, the theoretically ideal institutions and policies have been informally adapted to fit the needs, capacity and interests of the sub-national authorities. In the next subsections, I discuss five areas in which these regulations were especially influential in determining how sub-national governments spent *canon* transfers.

8.1.1 Rules for the utilisation of different types of revenue

Municipal government revenue sources may be grouped into two main categories: locally collected revenues and transfers from central government.¹⁸⁴ Locally collected revenues comprise municipal taxes (mainly property levies), administration fees, fines, and profits from the sale of goods and provision of services. Municipal governments can devote these revenues to both current and capital spending.

Transfers from the central government consist of the Municipal Compensation Fund (Foncomun),¹⁸⁵ *canon* transfers, and other minor earmarked transfers.¹⁸⁶ Municipal governments can utilise Foncomun transfers freely to finance both capital and

¹⁸² I provide more information on the administrative structure of the Peruvian state in chapter 1.

¹⁸³ Regional and local councils only have the capacity to regulate their own functional structure and some minor administrative procedures (Consejo Nacional de Descentralización, 2004).

¹⁸⁴ Borrowing from commercial banks or international institutions is a third source that is seldom used by most sub-national governments. However, the Law of Fiscal Decentralisation indicates that sub-national governments may access loans to finance the execution of investment projects, but not for current expenditure.

¹⁸⁵ The Foncomun is financed from 2/19 of the total Value Added Tax (VAT) revenue and is distributed among all municipal governments according to a predefined formula that incorporates criteria for population size, poverty indicators and percentage of rural population.

¹⁸⁶ For example, the *Vaso de Leche* (Glass of Milk) initiative that municipal governments are expected to implement in order to provide nutritional support to children and senior citizens.

current expenses. In contrast, the last modification of the *Canon* Law (Law N° 28,077) stipulated that *canon* transfers should be entirely devoted to capital expenditure. From 2006, the central government relaxed the application of the law, allowing municipal governments to spend up to 20 per cent of their *canon* transfers on the maintenance of local infrastructure, and an additional 5 per cent on the development of capital investment projects.¹⁸⁷ Regional governments have a slightly different revenue structure and do not have the authority to collect taxes. Most of their revenue is sourced from transfers from the national government, which are earmarked for financing education and health services.

Municipal and regional governments alike depend heavily on transfers from the central government. During the period 2004–2008, central government transferred to regional and municipal governments financial resources in excess of 96 and 90 per cent, respectively (Ministerio de Economía y Finanzas, 2010).¹⁸⁸ In the case of mining jurisdictions, this dependency has an additional challenging twist: they are forced to administer a disproportionately large budget for capital expenditure without being able to draw upon additional resources to increase current expenses.

8.1.2 *The budgeting schedule*

The budgeting schedule also has important implications for the management of municipal and regional governments. The fiscal year runs from January to December, and the preparation of the annual budget starts almost a year in advance. The Ministry of Economy and Finance (MEF) makes forecasts of central government revenue for the following year and the volume of transfers to be made to each sub-national government. Municipal and regional governments then use this information to initiate their own budgetary processes (including participatory budgeting, which I will explain later in this section). At the end of each fiscal year, the Opening Institutional Budget (OIB)¹⁸⁹ for the following year is approved by the MEF. It defines how much sub-national governments can spend on each line item and traditionally has a very conservative estimate of revenue. However, during the fiscal year, once the corporation tax and VAT revenue figures from the previous year are officially known, the MEF updates the volume of transfers to be allocated

¹⁸⁷ Through the annual budget law.

¹⁸⁸ The figure for municipal governments excludes Lima.

¹⁸⁹ The original Spanish is *presupuesto institucional de apertura* (PIA).

to sub-national governments; these are invariably higher than the earlier OIB calculations. Armed with these revised figures, in June–July, each sub-national government draws up a Modified Institutional Budget (MIB), which becomes the final version of the budget.

During the mineral price boom, this system made budget management extremely difficult for sub-national governments receiving high volumes of *canon* transfers. Frequently, the actual transfers amounted to more than double the figures forecast in the OIB. Thus, in the middle of the fiscal year, these governments had to come up with new proposals to spend the money. Although sub-national governments could have decided to reserve this additional funding for the following fiscal year, both central government and the population would have regarded such a measure as lack of capacity.

8.1.3 Distribution of functions among levels of government

The failure to clearly distribute functions and expenditure responsibilities between the three levels of government is a major shortcoming of the current decentralisation process (Ehtisham Ahmad & Garcia-Escribano, 2006). The Framework Decentralisation Law of 2002 (Law N° 27,783) defines three different types of function: those that are exclusive to each level; those shared between levels; and those delegated from one level to another through an explicit formal agreement.¹⁹⁰ The decentralisation of exclusive and delegated functions did not generate any significant problems during the period 2004–2008. However, those functions that were shared by two or more levels of government, such as the management of public services, promotion of economic activities, and provision of basic infrastructure, were made problematic due to a lack of coordination between the different levels.

Public capital investment in the education and health sectors illustrates this lack of coordination. All three levels of government are involved in building new facilities and refurbishing old ones, training personnel, and undertaking investment to improve the quality of service. In order to coordinate the efforts at the three levels, the Organic Law of Regional Governments (Law N° 27,867) specifies that regional

¹⁹⁰ Consejo Nacional de Descentralización (2004), and Calderon & Friz (2005) provide good summaries of different functions by level of government according to the legal framework of the Peruvian decentralisation process.

governments should only undertake capital investment projects with a regional perspective, while the national government should only invest in nationwide projects. However, the different levels of government interpreted these prerequisites very loosely during the period 2004–2008.

Two additional factors undermine coordination between government levels. First, intergovernmental transfers are sent directly from the centre to each sub-national government's account. Accordingly, municipal governments in a given region do not need to coordinate with or report to their corresponding regional government with regard to the management of their capital investment budget. Second, the lack of institutional relations between national, regional and municipal planning severs municipal capital investment projects from the implementation of national policy, and from the strategies of neighbouring jurisdictions. The result is a patchwork of juxtaposed strategies that lack any kind of synergy. To make matters worse, the national ministries implement projects at sub-national level using different criteria and without any coordination with the sub-national governments. For example, at national level there are four agencies responsible for (i) investment in rural electrification, (ii) rural roads, (iii) telecommunications, and (iv) water and sanitation. Each has its own planning mechanisms, criteria for the distribution of funds among territories, and even its own definition of what constitutes a rural area (Peltier-Thiberge, 2006: 294). They operate completely independently from regional and municipal governments, which, in addition, often invest a significant proportion of their resources in electrification, roads, and water and sanitation. Some regional and municipal governments try to overcome these problems by drawing up collaborative agreements. But these are done on an *ad hoc* basis and transaction costs make them unviable.

The negative impact of these factors on the coordination of different government levels operating in the same territory is more serious in mining jurisdictions than in the rest of the country. In municipalities without significant *canon* transfers, mayors are obliged to negotiate with the regional government or relevant ministries in Lima for the allocation of funding for specific projects in their municipalities. This demands a development plan whereby each level of government assumes responsibility for a specific part. The incentive to negotiate and coordinate does not exist in mining jurisdictions, where mayors and regional presidents have ample resources to spend. On the contrary, they face the opposite problem of generating

sufficient feasible projects on which to spend the *canon* transfers. Municipal and regional governments often compete to 'buy' viable projects from consultants.¹⁹¹ Managers in the regional governments of Pasco and Ancash reported that on various occasions, they found the consultant had cheated them by selling the same project twice. Thus when a regional government tried to register its project with the National Public Investment System (NPIS),¹⁹² it was rejected because another municipal government had got there first.¹⁹³

8.1.4 Participatory mechanisms for decision-making at sub-national level

The return to democracy after the Fujimori era went hand in hand with the promotion of participatory citizenship and the adoption of different mechanisms to increase transparency.¹⁹⁴ Participatory planning and budgeting were made compulsory for all sub-national governments. In addition, municipal and regional authorities have to incorporate civil society organisations into advisory bodies known as coordinating councils, and are required by law to give an account of budgetary spending in open public meetings. Even more radically, citizens can force authorities to become more responsive to popular demands by setting a recall election in motion to remove mayors and councillors from office when 25 per cent of the electorate in the jurisdiction approve the proposal.¹⁹⁵ Recent experience demonstrates that this is easy to do in small rural districts.¹⁹⁶

Popular participation in the generation of regional and municipal development plans was intended to be the keystone for the allocation of resources at sub-national level. However, as I discovered from many interviews I held with mayors and municipal managers, this ideal policy of popular involvement in decision making is

¹⁹¹ Most of these consultants are freelance civil engineers and economists specialised in designing investment projects for municipal and regional governments. They tend to work only in one or two regions as their professional success depends on developing good relationships with managers in sub-national governments. In some cases NGOs and small firms also offer this type of service.

¹⁹² The NPIS was initiated in 2000 with Law N° 27,293 and its Spanish name is Sistema Nacional de Inversión Pública.

¹⁹³ Interviews 2008-039 (Pasco, 24-09-2008) and 2008-097 (Huaraz, 18-06-2008).

¹⁹⁴ Remy (2005:23-31) provides an interesting analysis of how divergent ideological groups supported the introduction of participatory mechanisms.

¹⁹⁵ According to the Law of Participation and Citizens' Control (Law N° 26,300), once this requirement is met, the National Office for Electoral Processes should call a plebiscite in the municipality to confirm or remove the authorities.

¹⁹⁶ In 2008, there were recall elections in 242 municipalities, involving 240 mayors and 999 local councillors. Ultimately, 92 mayors and 423 councillors were removed from office (ONPE, 2009).

frequently by-passed. Most mayors consider it to be an annoying process and are not convinced of its usefulness. Municipal governments resort to hiring external consultants who, after calling some preliminary public meetings to comply with the legal formality of 'participation', draw up municipal strategic plans themselves. Suspiciously, these documents are often strikingly similar from municipality to municipality as consultants habitually recycle the same document for their different clients.

Some municipalities are fortunate in that mining companies help them to hire competent professionals to draw up a plan tailored to local needs.¹⁹⁷ But unfortunately, independent of the quality of the product, the practical results are similar in all the municipalities. Mayors' lack of interest in plans aimed at regulating their decisions makes these documents little more than colourful decorations for mayors' office walls.

Participatory budgeting is the other key mechanism intended to facilitate the allocation of resources for investment at sub-national level. In 2002, Parliament approved a law (Law N° 27,680) that made participatory budgeting compulsory as a public practice for all governments at sub-national level. The objectives of this measure were: (i) to reinforce democracy and good governance by means of civil society participation, (ii) to promote non-state investment through the involvement of the private sector in the budgetary process, (iii) to improve the quality of public spending, (iv) to foster downward accountability and, (v) to encourage the contribution of the general public in projects that benefit them (Shack, 2006: 69-70).

Each year, the MEF publishes detailed guidelines on how sub-national governments should carry out participatory budgeting. They introduce small changes in the procedures, although the main features do not change. First, potential participants must register to take part in the process. In most municipalities I visited, all the citizens were invited to take part and in some cases special status was conferred on civil society organisations and neighbourhood associations to allow them to present their proposals more extensively and to hold private meetings with municipal officials. After the governments' identify the participants and their training needs, the main exercise is carried out in workshops, which constitute a crucial stage of the budgeting process. Government officials,

¹⁹⁷ This was the case in municipalities around Antamina.

representatives of municipal governments (at the regional budgeting level) and local communities, members of civil society, and, in a few cases, business-people review the territory's challenges and opportunities and fix the criteria for the prioritisation of projects. Following this process, a technical committee analyses the economic and practical feasibility of the different proposals. Finally, the president of the regional government or the mayor of the municipality presents the technical analysis to the participants who, after deliberation, approve the projects that have been prioritised. This general procedure has multiple local variations.

After the first few years of compulsory participatory budgeting, Shack (2006:78) was able to identify some clear shortcomings: (i) a high degree of fragmentation of investment due to excessive popular expectations, which made it impossible to focus resources on strategic projects; (ii) lack of technical rigour at the sub-national level in the implementation of the process; (iii) dislocation between development strategies and participatory budgeting, and between municipal and regional levels; (iv) limited representation of participants; and, (v) the absence of effective mechanisms for monitoring and controlling agreed plans. As I shall show in subsequent sections, these deficiencies are exacerbated in the case of mining regions, where increasing resources have flowed.

8.1.5 Quality control of capital expenditure

All public investment projects – including those prioritised through the participatory budgeting process – must be examined and approved by the NPIS. This body initially operated within the MEF and was in charge of setting out technical criteria, methods and procedures aimed at guaranteeing the technical feasibility, and economic and social profitability of public investment. It was staffed by a body of civil servants who remained in Lima and were responsible for the evaluation of projects according to these criteria.

In 2006, the NPIS became a bottleneck in the expansion of public capital expenditure at sub-national level. Mayors and regional presidents blamed the system for their failure to meet annual investment targets, raising two separate objections. First, a centralised system could not cope with the growing number of projects presented for evaluation and this led to unnecessary delays. Second, the application of centrally designed criteria meant that local contexts were ignored and

viable or important projects rejected. In 2007, once the escalation of social conflict was apparent, President Garcia bowed to pressure from the municipal authorities and ordered the decentralisation of the NPIS. The MEF retained the authority to define the criteria for the evaluation of projects and had a general monitoring role, but other functions were delegated to regional and municipal levels to make the procedure quicker and more flexible. Regional and municipal governments are now permitted to set up their own Units for Investment Programming, which assume responsibility for the evaluation of investment projects according to NPIS criteria and procedures.

The new arrangement introduces greater flexibility into the system, but it also lowers the technical standards governing project approval. The decentralisation of the NPIS means that regional presidents and mayors are granted the authority to hire and fire the personnel responsible for evaluating their proposals. An independent evaluation of the projects approved at regional and municipal level in 2007 shows that a high percentage did not fulfil the necessary criteria (Ministerio de Economía y Finanzas, 2009b).

From this one can gauge the influence of institutional mechanisms on the way in which sub-national governments spend their financial resources, especially those intended for capital investment, including *canon* transfers. On this basis, I shall now examine the extent to which higher *canon* transfer levels influenced capital expenditure patterns in Peruvian municipalities during the period 2005-2008.

8.2 Influence of *canon* transfers on municipal capital expenditure patterns

Does the volume of *canon* transfers shape in a specific and consistent fashion the way in which municipalities spend their budgets? To answer this question, I used regression analysis to test whether higher *canon* transfer levels led to specific patterns of spending in Peruvian municipalities in the period 2005-2008. This is a first approximation to understanding local dynamics in *canon*-rich municipalities.

8.2.1 Variables and method specification

The first stage of the analysis was to determine how municipalities spent their money. I therefore compiled a data set containing official information on budget

implementation for all Peruvian municipalities from 2005 to 2008.¹⁹⁸ It contained a very detailed account of capital investment expenditure disaggregated into 48 sub-programmes by sector. After examining the nature of each sub-programme, I regrouped them into eleven sectoral categories: (i) education, (ii) water and sanitation, (iii) health, (iv) electrification, (v) agriculture promotion, (vi) promotion of other economic activities, (vii) transport infrastructure, (viii) urban infrastructure, (ix) conspicuous construction, (x) internal functioning, and (xi) other.

The first seven categories are self explanatory as to the sectors they belong to. They predominantly encompass infrastructure, although in some cases, training activities are also included. The contents of the following three categories – urban infrastructure, conspicuous construction, and internal functioning – require further explanation because this categorisation has methodological consequences. I included in urban infrastructure only the construction and renovation of streets, pavements, and public gardens. Conspicuous construction refers to stadiums, leisure centres, monuments, theatres and community buildings. It is important to note that I incorporate the construction of simple sports facilities into the ‘education’ category because they often serve the local school. Finally, I put under internal functioning the construction and refurbishment of town halls, investment in IT services for the municipal government and any other capital expenditure directly aimed at improving municipal services. To determine the variable, I calculated the proportion of capital spending allocated to each expenditure category by municipality and year.

In the regression analysis, I tested whether the volume of *canon* transfers received by each municipality correlated with the percentage of total capital investment devoted to the different sectors. More specifically, I chose to test the influence of *canon* transfers on the top seven sectoral categories, which, on average, represented more than 90 per cent of total actual capital expenditure in municipalities with between 3,000 and 200,000 inhabitants located outside the metropolitan area of Lima (see Table 8.1).

¹⁹⁸ Data provided by the MEF.

Table 8.1 Percentage of actual capital expenditure by sector and year in Peruvian municipalities with between 3,000 and 200,000 inhabitants

	2005		2006		2007		2008	
	N = 1,051		N = 1,060		N = 1,072		N = 1,113	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Education	10.7%	14.0	12.7%	13.3	15.5%	14.1	15.8%	13.9
Water and sanitation	10.0%	14.0	12.7%	14.7	13.7%	15.2	14.2%	16.0
Electrification	5.8%	12.8	7.8%	14.2	5.9%	11.0	4.0%	7.9
Agriculture	4.3%	9.5	6.2%	10.8	8.2%	12.8	9.3%	13.1
Transport	10.2%	15.0	11.6%	14.8	12.2%	15.0	12.2%	14.9
Urban infrastructure	17.4%	21.5	21.1%	21.5	18.5%	19.3	17.3%	18.3
Conspicuous constructions	19.1%	19.5	22.3%	17.9	20.4%	15.8	20.7%	15.7

Source: MEF; adaptation: the author.

In addition to the level of *canon* transfers that I used in the previous analyses, in this case, I controlled for other variables that could also influence the allocation of financial resources to specific sectors:

- (i) The ratio of actual capital spending to capital budget. Assuming that municipal governments aim to spend the whole budget, this variable controls for their actual capacity to fulfil their plans. This control is important because it is possible that municipalities lacking the capacity to fulfil their budget allocation prioritise ‘easy’ sectors in which projects are technically simpler to implement.
- (ii) The ratio of current spending to capital spending. This variable controls for the potential capacity of municipalities in terms of the availability of personnel and other resources to implement the capital spending plan (Aragón & Casas, 2009).

There are five supplementary variables that might correlate with specific necessities shaping municipal governments patterns of spending during the period: (iii) size of the population, (iv) level of poverty in 2007, (v) percentage of the 14–24-year old population with secondary education in 2007, (vi) percentage of the rural population in 2007, and (vii) percentage of the indigenous population in 2007. I also included year dummies to control for year-specific processes affecting all municipalities. These dummies are especially important because municipal

government budgets increased significantly from 2005 to 2008 and this general tendency may have influenced their priorities (see Appendix XI for a summary of all variables).

To compute the multiple regressions, I used OLS analysis with robust standard errors to correct heteroskedasticity.

8.2.2 Results: less spending on basic services and more on concrete

The analysis shows that the level of *canon* transfers negatively correlates with the proportion of the capital spending budget allocated to the provision of basic social services and transport infrastructure. In contrast, *canon* transfers positively correlate with expenditure in agriculture, urban infrastructure, and conspicuous constructions. In the next paragraphs I discuss separately the results for each one of these sectors (Table 8.2 summarises the seven regression analyses).

Basic social services

First, *canon* transfers negatively correlate with the percentage of capital expenditure allocated to education services, construction of water and sanitation infrastructure, and electrification. In the case of investment in education and water and sanitation, this negative correlation is statistically strongly significant – at 1 per cent. This coincidence notwithstanding, the following discussion clarifies why the reasons behind these results could be different in each case.

Municipal governments' capital investment in education is mainly restricted to the provision, renovation, and maintenance of physical facilities, limiting the amount of money that *canon*-rich municipalities can allocate to this sector. Even if *canon*-rich municipalities rebuilt all the schools under their jurisdiction – which in fact they frequently do – the requisite expenditure would consume a relatively small proportion of the available budget.

Investment in water and sanitation infrastructure is a different case. This basic service is far from adequate in most *canon*-rich municipalities, and municipal governments could well invest more in the expansion of these services. Before elections and at every annual public hearing, virtually every mayor promised to

deliver in this area.¹⁹⁹ Yet a combination of factors - the greater technical sophistication of this type of project, the longer time needed for implementation and prevalence of incentives to prioritise short-term, more visible works, contribute to the neglect of projects in this sector.

Electrification is a relatively minor line item in the municipal government budget, a situation that has become even more apparent in recent years (see Table 8.1). As the previous chapter notes, electricity coverage has improved markedly throughout the whole country, and most dramatically in *canon*-rich municipalities. Therefore, given the nature of investment and the current level of coverage, it is logical to assume that *canon*-rich municipalities with higher overall budgets expend a lower proportion on the expansion of this service – because it is there already or connection to the grid is relatively simple as mines in the area are already electrified.

Transport infrastructure

Second, spending on transport infrastructure negatively correlates with *canon* transfers. This result is difficult to explain because improvement of the rough tracks connecting rural communities was a constant demand in the participatory budgeting workshops that I attended in *canon*-rich municipalities. In some workshops the municipal officials blamed the strict NPIS regulations for lack of further investment in the sector. The NPIS did not allow road improvement without clear evidence that enough cars and trucks were already using them regularly. For the population it was a chicken and egg situation: they needed more cars circulating to be allowed to improve the tracks, but they needed better roads to get more cars circulating.

¹⁹⁹ The population demanded the fulfilment of these promises in different public meetings I attended: Cerro de Pasco (15-04-2008); Ninacaca (21-05-2008); Huaripampa (5-07-2008); and urban nucleus of San Marcos (6-07-2008).

Table 8.2 Regression of *canon minero* transfers and other socio-economic variables on the allocation of capital investment in municipalities with more than 3,000 inhabitants, by sector according to annual budget execution (2005–2008)

Time frame	Panel data 2005–2008						
Model specification	OLS regression with robust standard errors and year dummies						
Dependent variable: percentage of capital investment →	Education	Water and sanitation	Electrification	Agriculture	Transport infrastructure	Urban infrastructure	Conspicuous constructions
Log of <i>canon</i> transfers per capita	-.008 (.003)***	-.016 (.003)***	-.004 (.002)*	.021 (.002)***	-.010 (.003)***	.010 (.004)**	.022 (.004)***
Ratio of actual capital spending to capital budget	-.049 (.011)***	-.045 (.013)***	.008 (.010)	-6.7e ⁻⁴ (.011)	.017 (.012)	.035 (.015)**	.039 (.015)**
Ratio of current spending to capital spending	-.001 (2.7e ⁻⁴)***	-.003 (.002)	-9.3e ⁻⁴ (3.3e ⁻⁴)***	.002 (1.9e ⁻⁴)***	-9.1e ⁻⁴ (3.7e ⁻⁴)**	.001 (.002)	-.001 (4.3e ⁻⁴)***
Log of population	-.016 (.005)***	-.010 (.007)	-6.2e ⁻⁴ (.004)	-.029 (.004)***	-.029 (.006)***	.115 (.009)***	-.045 (.008)***
Poverty (2007)	.001 (1.6e ⁻⁴)	-7.0e ⁻⁴ (1.8e ⁻⁴)***	-7.7e ⁻⁵ (1.2e ⁻⁴)	8.8e ⁻⁴ (1.2e ⁻⁴)***	4.5e ⁻⁴ (1.7e ⁻⁴)***	-.001 (2.1e ⁻⁴)***	-2.2e ⁻⁴ (2.1e ⁻⁴)***
Percentage of the 15–24-year old population with secondary education in 2007	-.040 (.019)**	.003 (.019)	.026 (.018)	.067 (.016)***	-.134 (8.021)***	.086 (.020)***	.050 (.023)**
Percentage of the rural population in 2007	3.6e ⁻⁴ (1.2e ⁻⁴)***	-2.3e ⁻⁴ (1.3e ⁻⁴)*	.001 (9.9e ⁻⁵)***	1.5e ⁻⁴ (8.8e ⁻⁵)*	9.5e ⁻⁴ (1.2e ⁻⁴)***	-.002 (1.4e ⁻⁴)***	3.3e ⁻⁶ (1.5e ⁻⁴)
Percentage of the indigenous population 2007	4.9e ⁻⁵ (8.5e ⁻⁵)	1.1e ⁻⁵ (8.2e ⁻⁵)	-2.5e ⁻⁴ (7.0e ⁻⁵)***	7.4e ⁻⁴ (7.3e ⁻⁵)***	-5.1e ⁻⁴ (9.4e ⁻⁵)***	6.3e ⁻⁵ (9.4e ⁻⁵)	-7.0e ⁻⁵ (1.0e ⁻⁴)***
Year ₂₀₀₆	.025 (.006)***	.032 (.006)***	.021 (.006)***	.016 (.005)***	.011 (.006)	.030 (.009)***	.025 (.008)***
Year ₂₀₀₇	.046 (.006)***	.039 (.007)***	.003 (.005)	.032 (.005)***	.023 (.007)***	.008 (.008)	.004 (.008)
Year ₂₀₀₈	.053 (.006)***	.050 (.007)***	-.016 (.005)***	.041 (.005)***	.020 (.006)***	-.005 (.008)	.003 (.008)
R ²	.11	.05	.08	.23	.16	.31	.03
N	4,025	4,025	4,025	4,025	4,025	4,025	4,025

Notes: intercept calculated although not reported; standard errors in parenthesis; *** significant at 1% level; ** significant at 5% level; *significant at 10% level.

Agriculture

Third, in contrast to the previous sectors, investment in the promotion of agriculture strongly correlates with high volumes of *canon* transfer. Moreover, both the regression coefficient and the proportion of variance explained by the model are higher than in most other sectors. The convergence of two dynamics seems to account for this correlation. On the one hand, in most rural municipalities there is very little capital expenditure and local authorities use it almost exclusively for the provision of basic services. Thus, it is to be expected that the higher the *canon* transfers, the more likely the municipality will have outstanding resources to invest in sectors other than those covering basic services. On the other hand, greater expenditure in agriculture promotion constitutes a mechanism for the resolution of tensions between different groups in *canon*-rich municipalities. In recent years, peasant communities in the rural areas of mining municipalities have claimed that they do not benefit from *canon* transfers. They accuse the mayors of being mainly responsive to the demands of the population in the urban nucleus of the municipality. However, given sufficient financial resources, scaling up investment in irrigation projects or in the acquisition of improved animal breeds to distribute to farmers is quite a popular way of appeasing the rural population.

Urban infrastructure and conspicuous construction

Fourth, investment in urban infrastructure and conspicuous construction strongly correlates with the level of *canon* transfers. This is not surprising, as the capacity to invest in these sectors is almost unlimited and construction works have the political advantage of being labour intensive. Thus, disproportionate numbers of stadiums, monuments, and decorative pavements and street furniture are common in *canon*-rich municipalities. In this case, the fact that the variable is a proportion of the total capital spending budget makes the differences between *canon*-rich and *canon*-poor municipalities even greater in terms of per capita investment in these two sectors.

These results provide an initial though incomplete insight into the pattern of public spending in *canon*-rich municipalities. But the analysis has three limitations. First, the comparison of spending in each category across municipalities only measures the relative effort of each municipality. In other words, given the huge differences between municipalities in terms of per capita budget, it is very likely that in per

capita terms, *canon*-rich municipalities spend more in all sectors than the rest of the municipalities. Second, some of the models do not explain the observed variation in spending patterns (see values of R^2 in Table 8.2), meaning that they capture only a part of the history; and third, the results do not clarify the reasons behind the investment decisions of municipal authorities.

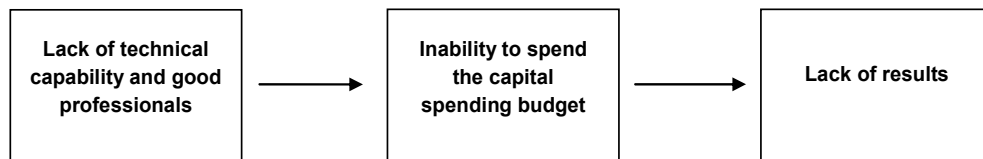
In the previous two chapters I argued that sub-national governments spend *canon* transfers inefficiently, at least, in terms of welfare achievement (Chapter 7). This lack of results is probably due to the allocation of revenue that does not prioritise improvement in basic services. This preliminary explanation needs to be substantiated with grassroots evidence. In the following sections, I examine data collected during my visits to 18 *canon*-rich municipalities in three Peruvian mining regions in order to gain a better understanding of local processes accounting for the lack of social benefits. I undertake the analysis in two steps. First, I examine the extent to which lack of technical capacity within municipal governments is responsible for the inefficient use of *canon* transfers. I discovered that although lack of capacity is an important issue, it alone cannot explain the use that municipal governments made of *canon* transfers (Section 8.3). Second, I present my own diagnosis of the problem through the analysis of some case studies (Sections 8.4 and 8.5).

8.3 Lack of technical capacity does not explain everything

In Lima, the official discourses on the shortcomings of service delivery in *canon*-rich municipalities were unanimous: lack of capacity within municipal government was to blame. In a context of conflict escalation in mining regions, this was a convenient explanation as far as both the national government and the companies were concerned. The explanation diverted popular attention from their own functioning to the poor performance of local authorities.

What did people mean when they pointed to lack of capacity as the main problem in municipal government in *canon*-rich municipalities? Most of my interviewees in Lima cited the inability of municipal governments to implement a large proportion of their capital investment budgets as both a major proof of this lack of capacity and the reason for the only small improvement in social indicators (Aragón & Casas, 2009). They signalled a lack of skilled professionals and poor municipal planning as

the principal factors behind the inability to spend the budget appropriately.²⁰⁰ The argument was simple:



This diagnosis had two practical consequences. First, some of the mining companies, the IFC, the United States Agency for International Development (USAID) and the Canadian International Development Agency (CIDA) decided to spend money on capacity building programmes for *canon*-rich municipal governments (Antamina, 2009; Programa *Canon*, 2010). Second, the national press constantly monitored the performance of municipal authorities (El Comercio, 2008c; La República, 2008).

To check the accuracy of this lack-of-capacity argument I compare the ‘technical capacity’ of 18 *canon*-rich municipalities in three different Peruvian regions with their ability to spend their budget. If these two variables correlated, the causal link between lack of capacity and municipal governments’ poor performance would still be plausible. On the contrary, if these two variables did not correlate then the causal explanation lay elsewhere.

8.3.1 *The technical capacity of municipal government: putting the concept into action*

Measuring the ‘capacity’ of the 18 municipalities was not an easy task. I had to overcome two interrelated difficulties: the conceptualisation of ‘capacity’ and access to the relevant information. Regarding conceptualisation, my main task was to determine which measurable factors accounted for an aggregate indicator of municipal ‘capacity’. Fortunately some authors have undertaken similar task in recent years (Fiszbein, 1997; Grindle, 2006, 2007). Their studies provided me with a sound methodological foundation, but I needed to face a second, very practical, problem. I had a fixed itinerary for visiting each municipality and from my previous

²⁰⁰ Interviews 2008-023 (Lima, 16-04-2008); 2008-83 (Lima, 09-06-2008); and 2008-086 (Lima, 11/06/2008).

experiences in the field, I knew that I would need to spend a good deal of time chasing up officials in order to interview them. Moreover, I soon realised that the authorities in *canon*-rich municipalities who felt uneasy at being under scrutiny were not happy at the prospect of a researcher digging deeply into the intricacies of their operations. Therefore, it was not realistic to think that I could conduct a thorough and systematic analysis of all the elements that might account for their capacity – or lack of it.

To solve the problem, I decided to design a Municipal Capacity Index (MCI)²⁰¹ comprising a basic checklist that municipal officials and authorities would regard as relatively ‘inoffensive’. The intention was not to capture all possible factors contributing to the technical capacity of a municipality or provide the most accurate measure of municipal capacity. I was interested in building an index that captured the basic set of procedures and policies that a municipal government needs to put in place to ensure it spends its capital budget efficiently. I selected three factors that according to the literature, influence both the quality of investment and efficiency in allocating resources (Fiszbein, 1997:1031-1032): (i) municipal planning; (ii) management of information; and (iii) personnel policy.

These three factors were equally weighted with scores ranging from zero to ten. Thus, each municipality could score up to a maximum of 30 points according to the following criteria:

- (i) Municipal planning: Is there a Medium-term Municipal Plan (MMP) that is actually used as the basis for making decisions about capital investment? The score for this factor ranges from zero to ten according to the following criteria:
 - a. The municipality has an MMP: 3 points
 - b. The MMP reflects municipal realities and needs: up to 2 points
 - The MMP has a clear understanding of the issues involved: 1 point
 - The MMP identifies specific solutions: 1 point
 - c. The MMP is actively used for the approval of projects via participatory budgeting: up to 3 points
 - Used marginally: 1 point

²⁰¹ This type of index was inspired by Grindle’s work on performance indicators for municipal governments (2007:56-61).

- Central to the process: 3 points
- d. A mechanism is in place to review the MMP: 2 points
- (ii) Management of information: Extent to which the municipal manager is able to provide documentary proof of management: up to 10 points:
 - a. The complete MMP: 1 point
 - b. Statistics for staff employed by the municipality during the previous two years: 1 point
 - c. Municipal budget and economic performance reports for the last four years: up to 4 points (1 point per year)
 - d. List of investment projects executed in the last four years: up to 4 points (1 point per year).
- (iii) Personnel policy: stability and professionalism of municipal personnel according to the following criteria:
 - a. Percentage of civil servants replaced after the most recent election: up to 6 points
 - <50 per cent: 5 points; 50–60 per cent: 4 points; 60–70 per cent: 3 points; 70–8 per cent: 2 points; 80–9 per cent: 1 point
 - An additional point if there has been no systematic turnover of staff in the previous two years
 - b. Recruitment policy prioritises professional capacity over political loyalty: up to 2 points
 - A human resources team is responsible for recruitment according to clear job descriptions: 2 points
 - The mayor take responsibility for recruitment and relevant line managers are also consulted: 1 point
 - Sole responsibility for recruitment rests with the mayor: 0 points
 - c. Employee training: up to 2 points
 - Explicit and independent municipal policy on training: 2 points
 - Municipality responds to offers from the national government: 1 point
 - Municipality does not consider training to be important: 0 points

The first column in Table 8.3 shows the results of this indicator for the 18 municipalities under study and their average score aggregated by region. The results reveal that in most municipalities, there was effectively plenty of room for capacity building. However, they also indicate that capacity varied widely among the 18 municipalities.

Table 8.3 Municipal capacity index (MCI) for 18 municipalities and comparative proportional execution of the capital investment budget (2007–2008)

Municipality	Municipal Capacity Index (MCI)	Percentage of capital investment budget used (average 2007–2008)	Per capita capital investment budget in PEN (average 2007–2008)
ANCASH			
Regional average	12	51%	9,284
Jangas	12	56%	3,561
Huari	16	53%	6,407
Cajay	14	80%	8,462
Chavin de Huantar	22	41%	8,238
Huachis	3	69%	7,430
Ponto	4	51%	8,422
San Marcos	14	7%	22,471
MOQUEGUA			
Regional average	15.8	53%	7,590
Moquegua	15	55%	4,205
Carumas	17	46%	9,212
Samegua	18	51%	3,382
San Cristobal	11	54%	4,779
Torata	18	60%	16,373
PASCO			
Regional average	14	39%	3,169
Huachon	19	62%	2,920
Huayllay	15	35%	3,728
Ninacaca	10	29%	3,261
S. Fco de Yarusyakan	15	31%	2,848
Simon Bolivar	21	45%	2,469
Tinyahuarco	4	30%	3,769

Source for columns 2 and 3: MEF; adaptation by the author

The aggregation of the MCI by region reveals some tendencies. Municipalities in Moquegua had the highest average institutional capacity rating (15.8), while those in Ancash had the lowest MCI (12); and Pasco was somewhat in the middle (14).²⁰²

²⁰² It is important to note that at the time of my field research in Ancash, Antamina was implementing a vast programme of capacity building in Huari, Chavin de Huantar and San

These regional averages are consistent with the wider trends I observed during my research. Given that municipal governments were not staffed by a stable group of officers, the institutional capacity of the municipalities was frequently determined by the regional level presence of a pool of professionals with technical expertise in the management of sub-national governments. The next brief characterisation of municipal features at regional level is of help in making sense of the average scores, and provides a background for the subsequent analysis of local dynamics.

The higher capacity of municipalities in Moquegua was not a chance occurrence. In the 1980s and 1990s, Moquegua was the cradle of a national policy of municipal management renovation. The experience of the municipality of Ilo in participatory governance and excellent record in the provision of services attracted attention and inspired national legislative reform in the 2000s (Díaz Palacios, 1990; García de Chu & Piazza, 1998). Ilo and Moquegua – the provincial municipality – were also promoters of a new generation of public servants. In 2002, the ideological line of Ilo's municipal government changed. The new conservative mayor rejected the political stance of the previous administration and fired most of the public servants employed. These officials subsequently sought reinstatement in the regional government and other municipalities, helping to improve the technical capacity of these institutions.

Pasco was an intermediate case. *Canon* transfers to the region had increased substantially, but were still far lower than transfers to Ancash and Moquegua. Most professionals in the municipalities came from the city of Cerro de Pasco or Huancayo, the capital town of the neighbouring region. Lower salaries in the region – in comparison to Ancash and Moquegua – meant that its municipalities were able to recruit two different types of people as managers. The first group comprised mature bureaucrats who had worked for different public institutions in the past but had not enjoyed a sufficiently successful career to secure a permanent job or migrate to a more attractive area of the country. The second group consisted of young professionals who considered their appointment to be the door to a

Marcos, the three municipalities that scored the highest in the region. Even if this programme cannot in any way be regarded as a success (see discussion in Section 8.4), it is clear that the external consultants hired by Antamina were instrumental in providing managers with the municipal planning documentation I was asking for. Their scores – and consequently, the regional average – would have been even lower without this last minute superficial fix.

professional career in public administration. For example, the high MCI scores for Huachon (19) and Simon Bolivar (21) were due to the work of two brilliant recent graduates of the regional university. The mayors trusted them and the youngsters were keen to use the opportunity as a springboard to higher profile jobs in Pasco or, if possible, Lima.²⁰³ However, not all managers could afford the level of professional dedication these two young managers showed. Low public sector salaries frequently prompted municipal managers to supplement their earnings with consultancies in the design of investment projects for other municipalities – and sometimes, even for the one that employed them.

The context was different in Ancash. All the municipalities under study with the exception of Jangas were in the Conchucos Valley, traditionally one of the most impoverished territories in Peru. Until the recent boom in *canon* transfers, the average municipality had barely two or three employees to carry out all basic administrative duties. Even when *canon* transfers did start to flow into the municipal coffers, mayors were still unable to recruit sufficient professionals locally to manage the municipalities in this novel situation. Thus, hiring skilful advisors with the capacity to navigate the welter of regulations governing Peruvian municipal life was the top priority of all mayors after the 2006 election. However, their most urgent concern was not to improve the overall capacity of the municipality, but to accelerate public spending and win popular support.

Not surprisingly, the whiff of money attracted an array of shady characters to Conchucos. Municipal managers of dubious reputation proliferated, some of them convicted of mismanagement during previous tenures in other municipalities in the country. Often, the attraction was not so much the official salary as the opportunity to strike lucrative deals with contractors and consultants.

8.3.2 *The non-correlation between capacity and quick spending*

In a second step, I wanted to compare the MCI with the popular narrative that highlights the inability of municipal governments to spend a larger proportion of their capital investment budget as the main indicator of lack of capacity. The second column of Table 8.3 shows the average proportion of the annual capital

²⁰³ Personal interviews 2008-052 (Simón Bolívar, 21-05-2008), and 2008-082 (Huachón 4-06-2008).

expenditure budget that was actually used in each municipality in 2007–2008.²⁰⁴ The same table also provides figures for the per capita capital investment budget of each municipality in order to make the comparison meaningful.

The lack of correlation between the MCI and the percentage of the budget that was actually spent is immediately apparent. The figures do not correlate either when they are considered separately for each municipality or when aggregated by region. Municipalities with very low MCI scores, such as Huachis and Ponto, reached high degrees of budget implementation, while some municipalities at the top of the MCI ranking e.g. – Chavin de Huantar and Simon Bolivar – were not so effective in terms of spending. The aggregation at regional level shows a similar counterintuitive tendency: the fact that they had low MCI scores notwithstanding, municipalities in Ancash – except San Marcos – spent a greater percentage of their budgets than their counterparts in the other two regions.

These puzzling results indicate the need to look for alternative factors in these *canon*-rich municipalities not included in the conventional paradigm of capacity, but which determine the ability of the governments to put in place their investment budgets more comprehensively. Moreover, the existence of municipalities with quite different levels of capacity plays down the importance of the lack-of-capacity argument for explaining the general difficulty *canon*-rich municipalities have in translating *canon* transfers into improved welfare, as identified in the indicators.

Based on my discussions with local actors in the 18 municipalities of my field research, and attendance at seven participatory budgeting workshops, in the following two sections I propose an alternative explanation for the lack of positive results in *canon*-rich municipalities and lack of positive correlation between capacity and ability to spend.

8.4 Political survival, *canon* transfers, jobs, mafias, and popular participation in Conchucos Valley (Ancash)

Before the 2006 elections, the municipalities of Conchucos Valley in Ancash had already started to receive a substantial volume of *canon* transfers generated by Antamina's corporate taxes. The use of *canon minero* revenue subsequently

²⁰⁴ I have taken 2007-2008 to capture the performance of the governments that were elected in 2006 and were in office, when I calculated the MCI.

became a central issue in the electoral campaign. People voted those candidates who promised public works to improve the infrastructure, job creation being the salient point. After popular frustration caused by lack of employment opportunities in the Antamina mine in the early 2000s, this time, people hoped that the revenue accruing to municipal governments would provide better job prospects. Thus, the new mayors who took office enjoyed strong popular support, but the onus was on them to deliver on their promises.²⁰⁵

The mining companies and central government also put pressure on *canon*-rich sub-national governments to deliver in a timely fashion. In a context of conflict escalation in the mining regions, the central government held municipal governments responsible for popular discontent due to their inability to execute their budgets promptly (La República, 2008). Both municipal authorities and the general public felt that such accusations signalled a covert strategy to recentralise the management of mining revenues (La Primera – Huaraz, 2008). Therefore, they felt compelled to demonstrate their competence. Simultaneously, mining companies also demanded quicker implementation of development projects in order to show that mining could benefit the people living close to their operations.²⁰⁶

Two years later, in 2008, the situation of the municipal governments in Conchucos was perplexing. In the words of the regional anticorruption prosecutor, “Conchucos has become a mafia-territory.”²⁰⁷ Disreputable businessmen seeking lucrative contracts infiltrated town halls; mayors took to carrying guns;²⁰⁸ ‘conspicuous construction’ and decorative pavements proliferated; and rumours of mismanagement were widespread. However, the majority of the population turned a blind eye because they could count on coveted jobs in public works.

To comprehend this situation, I analysed how the abundance of *canon* transfers has generated corruption, distorted mechanisms for popular participation and rendered attempts to generate institutional capacity at municipal level futile.

²⁰⁵ See Table 6.3 for the percentage of votes received by the mayors of these municipalities.

²⁰⁶ Interviews with senior managers of mining companies: 2008-083 (Lima, 9-06-2008), and 2008-084 (Lima 10-06-2008).

²⁰⁷ Interview 2008-092 (Huaraz, 17-06-2008).

²⁰⁸ Interview 2008-133 (Huachis, 11-07-2008).

8.4.1 *The tolerance of corruption*

The recent history of the Conchucos Valley leaves very little doubt as to the alarming extent of corruption in municipal government. Leaders of minority opposition groups frequently recounted stories of dishonesty and mismanagement during my visits to the various municipalities;²⁰⁹ indeed, corruption had become a serious problem for them. Yet, the local drivers, peasants, and small traders I met during my journeys by public transport across the valley were more cynical: corruption had always existed but it was tolerated if it meant that the authorities could bring benefits to the people.²¹⁰

As I went about my fieldwork, it was difficult to assess how accurate these accusations were. Some people provided me with strong evidence of corruption in San Marcos, but I did not get similar confirmation from other municipalities. Ironically, a few months later, clear evidence of dishonesty in these municipal governments came to light. In June 2009, the Front for the Defence of Cajay published official reports revealing the existence of irregularities in the municipal government concerning purchasing processes and bids for construction contracts (La Primera – Huaraz, 2009). Soon after this, the mayor of the neighbouring municipality of Huachis was arrested and thrown into jail, accused of contracting out excessively remunerated public works to his own family (Peru21, 2009). Furthermore, in 2009, the National General Comptroller launched ‘Operation Condor’, whose brief was to verify popular accusations, which led to the mayors of Huari, Chavin de Huantar and San Marcos being charged with various counts of corruption for offences committed in 2007 and 2008 (Contraloría General de la República, 2010).

Having personally listened to the mayors’ side of the story, I tend to believe that plundering the coffers of the municipality had not been uppermost in their minds when they decided to stand for election. Of course, they aspired to make some money out of their position, but they also genuinely hoped to improve public services in their respective municipalities. But soon after taking office, they became

²⁰⁹ Personal Interviews 2008-123 (San Marcos, 7-07-200), and 2008-124 (San Marcos, 8-07-2008).

²¹⁰ Huber (2008) found similar popular reactions in other Peruvian regions.

entangled in a web of vested interests. How did it all go so wrong? The history of San Marcos sheds some light on the course of events.

The district of San Marcos has 14,000 inhabitants and hosts the Antamina mine. Felix Solorzano – nicknamed ‘the Fox’ – won the 2006 municipal election with 38 per cent of the vote (ONPE, 2007), an achievement due to his previous job as a taxi driver, whereby he enjoyed a good rapport with the rural population. Felix started his political career at the local branch of the American Popular Revolutionary Alliance (APRA), teaming up with Glicerio Mauricio, the previous mayor. However, before the election he split with his former mentor and put forward a radical platform endorsing popular grievances against the incumbent mayor and Antamina. The rural population of San Marcos perceived that this was an historic opportunity to break the traditional domination of two well-off families that had alternately controlled the municipal government for the previous decade. However, once in power, Felix was less critical of Antamina, arguing that collaboration with the company would help improve the lot of the population. His critics claimed that jobs at the mine for relatives and friends had been the main motivation for his change of view.

When it came to the use of *canon* transfers, the new mayor championed the direct execution of investment projects without contracting the work out to private companies.²¹¹ According to Felix, direct management had two main advantages. First, it allowed the municipal government to save the fee it would have paid to the contractor and also the accompanying value added tax related to the hiring of a workforce by the contractor. Second, and more importantly, it gave the mayor the power to hire the workforce directly. However, the municipal government did not have the personnel or the expertise to manage the equivalent of a large construction business and the venture failed. In 2007, the municipality of San Marcos only used four per cent of its total capital investment budget (Ministerio de Economía y Finanzas, 2010). That year, the mayor hired three different general managers in an attempt to speed up budget implementation. One after the other, the three failed to hire competent professionals and to set up the structure

²¹¹ This direct management involved (i) contracting a consultant to design an investment project that met NPIS criteria; (ii) ensuring all the administrative requirements for the formal approval of a given project were in place; (iii) putting a contract for the acquisition of materials out to tender; (iv) hiring engineers to manage the project; (v) hiring the workforce; and finally (vi) coordinating the jobs of the various actors involved.

necessary to implement directly the large amount of investment projects budgeted for.

At the end of 2007, under growing popular pressure, the mayor decided to hire a more experienced general manager. When asked about the job description, the mayor confessed that he had been looking for “a brainy guy who could help me find my way around the law”.²¹² As the candour of this confession implies, the job specification did not suggest any deliberate intention to commit a crime; he simply wanted to take advantage of any loopholes in the law and strict regulations in order to run the municipal government in a more flexible and effective manner.

Hiring experienced managers was in itself a substantial challenge. In a populist move, President Garcia introduced a governmental decree aiming to regulate – in fact, reduce – the remuneration of municipal employees.²¹³ Consequently, salaries were capped in accordance with the size of the municipality’s population, regardless of the size of the municipal budget. Thus, in 2008, the official monthly salary of the mayor of San Marcos was PEN 1,700 (USD 575). According to the decree, no other municipal employee could earn a higher salary than this. This meant that mayors were faced with the challenge of trying to recruit skilled municipal managers willing to move to a remote and poor corner of the country in return for an insubstantial salary. Not surprisingly, this unfortunate combination of restrictions attracted applicants who looked for other ways to profit from the position in addition to drawing a salary. In the case of San Marcos, at least two general managers hired in 2007 and 2008 respectively had previously been indicted for mismanagement in other municipalities (Primera Página, 2009).

The municipal managers’ ideas of interpreting the law flexibly went too far. They had a predilection for swelling their basic salaries on the pretext of having been recruited as consultants to the municipality.²¹⁴ They took bribes in return for hiring architects and engineers to design investment projects that were frequently blatant copies of similar proposals submitted to other municipal governments. And, finally,

²¹² Interview 2008-111 (Ancash, 02-07-2008).

²¹³ Supreme Decree N° 025-2007-PCM.

²¹⁴ The revision of investment projects in the 18 municipalities under study revealed that the heading ‘institutional strengthening’ systematically concealed significant recurrent budget items for the payment of municipal officials’ salaries.

they rigged tendering processes in favour of contractors who, in return, shared part of their profits with them.

Obviously, these managers paid little heed to institutional capacity building in San Marcos, being preoccupied with keeping the wheels of their own businesses rolling. Thus, they gave their cronies jobs in certain key positions in the municipality, leaving the mayor to hire as many of his supporters as he could cram into the municipal departments.²¹⁵ This resulted in a situation in which the bad technical quality of projects and lack of professionalism in the municipality made it impossible to improve the rate of budget allocation to projects to any great extent – just ten per cent in 2008 (Ministerio de Economía y Finanzas, 2010). Surprisingly, almost 45 per cent of this budget went to education projects. But the seemingly high priority given to the sector was not the result of a well thought out plan, but of short-term convenience. The construction of new schools in different villages and municipal suburbs was technically the easiest kind of project to implement because it relied on standard buildings that could easily be replicated in different neighbourhoods.

In May 2008, the town clerk and one counsellor in the municipality on the mayor's electoral list publicly denounced the corrupt practices in the municipality and accused the mayor and general manager of mismanagement. Assessing the evidence, a majority of the councillors – three out of five – asked the National General Comptroller to launch a formal inquiry into the municipal accounts. The non-appearance of substantial public works together with these accusations galvanised public discontent. Some local groups called for a demonstration to be held on the 26th of June demanding the mayor's resignation.

At the same time, the municipal management team dreamt up a crude but effective response. Taking advantage of a supreme decree allowing the use of up to 20 per cent of *canon* transfers for the maintenance of public infrastructure, the municipality organised a 'pilot scheme' popularly dubbed the 'messing about scheme' (*el plan hueveo*). The popular nickname of the scheme indicated its lack of substance: teams of labourers scattered across the district engaged in extremely minor, often completely unnecessary jobs. Through this policy, the municipality hired between 1,000 and 1,500 unskilled labourers in cycles of 15-day shifts. This meant that

²¹⁵ In 2008, San Marcos had around 120 management and administrative staff, although the number varied quite widely from month to month owing to a high turnover.

everyone in the municipality had the chance to earn a wage through work offered by this programme for 15 days every two months. The basic wage was PEN 450 (USD 150) for the two weeks, and the foremen earned PEN 600 (USD 200), which was quite good pay in the local context.²¹⁶ Not surprisingly, the majority of the population welcomed the initiative.

In the days leading up to the demonstration planned for 26th June, municipal employees spread the rumour that opposition groups intended to stop the 'pilot scheme', and asked those employed on it to demonstrate their loyalty to the mayor. Consequently, on the 26th, people from the rural areas poured into town to defend the mayor's policies. The opposition had to withdraw its protest and appeal to the police for protection. Thus, in spite of poor local governance and unquestionable evidence of mismanagement, the mayor whipped up sufficient popular support to stay in office until his tragic death in a road accident in November 2009.

There were similar situations in the other five municipalities under study around Antamina – Huari, Chavin de Huantar, Cajay, Huachis and Ponto. Although in a few municipalities I found some honest and genuinely dedicated officers, it seemed that most mayors and municipal managers had become entrapped in similar ways to San Marcos; they were involved in the same corrupt practices and also resorted to clientelistic strategies in order to hold on to their posts. However, in contrast to San Marcos, these municipalities were more successful in executing their capital investment budgets. The mayors did not manage public works directly and subcontracted them out to private firms. This proved to be a more effective way of spending the money and, apparently, presented even more opportunities for private gain. Usually, the mayors would arrange with the company implementing the project for an unskilled labour force to be hired locally, but the mayors tacitly reserved the right to propose the job applicants themselves.

In 2008, the majority of the population in these municipalities worked for the municipality. As in San Marcos, the populace did not show any great interest in tackling corruption, and most mayors maintained their positions without any significant opposition.²¹⁷ As noted in Chapter 6, when the people occasionally

²¹⁶ Information provided by the mayor and the general manager of the municipality and contrasted with people working in the scheme.

²¹⁷ Cajay was a relative exception. The mayor won the election with only 23 per cent the vote and faced strong opposition from the candidate that came second. In 2008, the opposition

showed signs of discontent, the mayors were able to direct their grievances towards the incompetence of the regional government.

Finally, the *canon* transfers gave municipal authorities the chance to silence the critics in the local media. The general literature on decentralisation and corruption emphasises the importance of an independent press able to monitor the activities of bureaucrats (Lessmann & Markwardt, 2010). Unfortunately, the few radio stations broadcasting in the Conchucos Valley were quickly ‘bought off’ by the municipal authorities with the aid of publicity contracts. In some cases, as in San Marcos, the municipality directly recruited the most outspoken local radio presenter to the mayor’s team of advisors and provided new equipment for his station. As the mayor enjoyed good relations with Antamina – the only alternative source of publicity – none of the other local radio stations could risk criticising the management of the municipality.

8.4.2 *The distortion of participatory mechanisms*

It is widely accepted that participatory mechanisms at municipal level tend to reinforce downward accountability and foster responsiveness to the needs of the population (Cabrero, 2007; Cheema, 2007). Research on Peruvian decentralisation has reached similar conclusions (Brinkerhoff, Brinkerhoff, & McNulty, 2007; Grompone & Glave, 2009; McNulty, 2006). Without denying the general validity of these findings, my research indicates that in *canon*-rich municipalities, the high volume of mining rents combined with widespread distrust in public institutions has distorted the aims and practice of participation. In the next paragraphs I review how two mechanisms, the right of citizens to demand a recall election and participatory budgeting, have been instrumental in shortening the planning horizon of municipal governments, promoting quick spending irrespective of the quality of the projects, and loosening the social control over corruption.

The right to demand a recall election has made it more difficult to implement some of the policies conventionally recommended for the effective use of mining revenue in *canon*-rich municipalities. Economists advise that the decentralisation of mining and oil revenues to sub-national governments should incorporate a mechanism to

collected signatures to organise a recall election, but the mayor was victorious and stayed in office.

operate the expenditure of windfalls, so improving the efficient use of the revenue (E. Ahmad & Mottu, 2003; Brosio, 2003). In the Peruvian case, the most obvious way to do this would be to defer part of the *canon* transfer for use in subsequent years, a measure which would help improve both the planning process and the quality of investments.

Three reasons made the introduction of this type of policy politically unfeasible in *canon*-rich municipalities during the last mineral price boom. First, people did not trust public institutions or believe that they would keep the revenue set aside for future use in a responsible manner. Moreover, they feared that the central government would eventually appropriate any portion of the *canon* transfer that the municipality had not spent within the fiscal year. Second, given that employment in public works was the population's top priority, any attempt to slow down the rate of expenditure would have been highly unpopular. Third, the previous two obstacles might have been overcome if the mayors had had sufficient time to demonstrate that better planned expenditure improved the quality of investments. But this was not the case: the citizens' right to demand a new election of municipal authorities was a constant threat that narrowed the planning horizon of municipal governments. As the mayors of three of the municipalities under study – Cajay, Carumas and San Cristobal – realised in 2008, winning a municipal election no longer guaranteed a full four-year term of office; they had to win a recall election to stay in post (ONPE, 2009). This meant that they needed to deliver results in a timely fashion in order to appease a population that was not willing to wait until the end of an incumbent's official term to evaluate his performance.

The increasing popular pressure to deliver as quickly as possible and the priority given to the creation of jobs also distorted participatory budgeting in *canon*-rich municipalities. Shortly after being made compulsory, Remy (2005: 140-143) pointed out that the regulation of the budgeting process afforded municipal authorities substantial discretion in the final decisions about which projects were to be executed. Popular participation focused on suggesting proposals for projects and prioritising them. However, people were required to vote before information was available about the technical constraints or cost of a project. According to municipal managers, providing this information would have been very costly and held up the process. Consequently, general ideas about projects that might be implemented were passed on to municipal bureaucrats who made the final decision about which

initiatives should be implemented. This technical phase of the process became a 'black box' that selected from and filtered out popular proposals with no transparency concerning the criteria employed. When municipal authorities had to account for their decisions, they usually hid behind statements about their compliance with national legislation, and the requirements of NPIS and other regulatory bodies were used to justify decisions made the previous year.

Participatory budgeting in *canon*-rich municipalities suffered from these general shortcomings. Yet, as I found out in my fieldwork, there were also other features that shaped the outcome of the process in these municipalities. First, the availability of financial resources allowed *canon*-rich municipalities to hire consultants and NGOs to design and implement the participatory phase of the budgeting process. This 'privatisation' of the procedure had two main consequences. On the one hand, municipal authorities and officials were largely absent from participatory workshops, making accountability for the implementation of previous years' agreements impossible. Even when some low-ranking municipal officials attended, they were invariably unable to answer participants' questions, since, due to high staff turnover, they knew nothing about the expenditure in previous years. On the other hand, these external facilitators tended to increase the number of participatory workshops held in the different communities and neighbourhoods of each municipality – according to their own accounts, to enhance participation; according to sceptical local opinion, to raise their incomes (they were usually paid according to the number of workshops they organised).²¹⁸ This multiplication of workshops led to the dissolution of demands and loss of the wider municipal perspective. Participatory processes tended to wind up in ridiculously long wish lists, for which each small group of the populace put forward its own demands. In 2007, the municipality of San Marcos prioritised more than 400 projects by means of this participatory budgeting process.²¹⁹ Indeed, the longer the list, the easier it was for municipal authorities to select those projects that were the most attractive to them.

²¹⁸ For example, the mayor of Ninaca – with a population of 4,000 – hired an NGO called Munired to organise participatory budgeting in 2008. Munired facilitated 16 decentralised workshops and compiled a 'bank of ideas for projects'. The municipality finally selected 20 projects, amongst which there was at least one from each workshop (Information from personal participation in workshop; interviews 2008-036 (Ninacaca 29-04-2008); 2008-041 (Ninaca, 04-05-2008)).

²¹⁹ Information given to the general public in a participatory budgeting workshop held in the peasant community of Huaripampa (San Marcos, 05-07-2008).

Second, although the authorities often failed to respond to the population's most pressing concerns, people would finally accept second or third best options if the allocation of resources provided job opportunities. For example, participants in budgeting workshops in 2007 and 2008 in the rural areas of Huari, San Marcos and Chavin de Huantar prioritised investment in the expansion of drinking water coverage and irrigation infrastructure. Those attending workshops in 2008 vented their frustration because their priorities from the previous year had been ignored completely. At the beginning of a meeting in Huaripampa – a peasant community in San Marcos – one of the participants protested, “We are tired of answering the same questions year after year. We give you our opinion, but you do nothing for the whole year; then you come back the following year, and all we do is to give you the same answer as before.”²²⁰ After debating the usefulness of the process, they proceeded with the workshop as usual; and, once again, the participants prioritised investment in drinking water and irrigation facilities.

After the meeting, one municipal government officer confided that the municipality had not even begun the administrative procedure for contracting the design of these types of projects. Apparently, the obstacle was one of complexity, as they demanded the deployment of engineers to design infrastructure specifically tailored to the local environment. Then, the alternative was the implementation of less demanding projects that offered jobs to the population. In the case of Huaripampa, the implementation of the pilot scheme eased local discontent. In Cajay, Chavin de Huantar, Huachis, Huari and Ponto, investment in the refurbishment of schools, the development of urban infrastructure; and the construction of stadiums, municipal halls, and different kinds of monuments claimed the lion's share of the capital investment budget in 2007 and 2008.²²¹ Such initiatives were easier to implement and had the advantage of being labour intensive.

²²⁰ Huaripampa (San Marcos, 05-07-2008).

²²¹ See figures in appendix XII.

8.4.3 *The limitations of transparency and capacity building*²²²

The introduction of the Mining Programme of Solidarity with the People (MPSP) in 2007 meant that Antamina had USD 65 million to spend in social development in the Ancash region, investment that was concentrated, to a great extent, in the municipalities more directly impacted on by the operation's activities.

The mine created a separate organisation, Antamina Mining Fund (AMF), to implement these social activities. AMF decided to spend some of its resources on a capacity building programme in three municipalities of the Conchucos Valley – Huari, San Marcos, and Chavin de Huantar. Its idea was to help the municipal governments to use *canon minero* transfers effectively. The organisation selected three different types of initiatives: the development of the Municipal Management Plan (MMP); the design of investment projects to be implemented by the municipality; and the strengthening of some municipal departments through the design of administrative procedures, training and mentoring.

AMF hired two renowned Peruvian consulting firms – Macrogestion and Governa – to do the job. Macrogestion – a subsidiary of Macroconsult – prepared investment projects and developed the MMP for the municipalities of Huari and San Marcos. The objective was to improve the quality of municipal interventions and speed up their allocation of the budget to projects. Given the challenges, this seemed to be a clever approach. In the case of San Marcos, AMF proposed a very flexible contract whereby the municipality could ask Macrogestion to prepare any kind of project free of charge as AMF covered the expenses. Macrogestion opened an office in San Marcos with 18 specialists in different fields, hiring additional experts on an ad hoc basis to work on specific projects.

In 2007, the municipality asked Macrogestion to design 85 out of a total of 400 investment projects managed by the municipal government. The manager of Macrogestion in San Marcos identified some common features in the 85 projects: they were complex interventions that demanded an inordinately large volume of

²²² The information used in this subsection derives from the following personal interviews: 2008-083 (Lima, 09-06-2008); 2008-086 (Lima, 11-06-2008); 2008-114 (San Marcos, 03-07-2008); 2008-115 (San Marcos, 03-07-2008); 2008-117 (San Marcos, 03-07-2008); 2008-121 (San Marcos, 06-07-2008); 2008-123 (San Marcos, 07-07-2008); 2008-114 (San Marcos, 03-07-2008); 2008-124 (San Marcos, 08-07-2008); 2008-136 (San Marcos, 13-07-2008); 2008-139 (Huari, 15-07-2008); 2008-143 (Lima, 22-07-2008).

work in relation to their total budget.²²³ As consultants' fees were usually a percentage of the total budget, this meant that these projects were not profitable enough for the consultants who ordinarily worked for the municipality and with whom the managers habitually colluded.

Surprisingly, once these 85 projects had passed all the technical and administrative checks, the municipality decided not to implement 35 of them. Apparently, they were too complex for the municipal government to implement them quickly. In July 2008, AMF started to evaluate the real usefulness of this service. However, it continued with the programme until May 2009.

The jobs of the three Governa employees posted in San Marcos were less demanding. They were to identify the organisational needs of the municipality and provide training and mentoring to improve its capacity. However, their counterparts in the municipality were not willing to allow Governa to meddle in the way they ran affairs. Governa concluded that they had too much to hide.²²⁴ Thus, municipal managers were only interested in Governa drafting documents for the 15 administrative procedures that each Peruvian municipality had to have to comply with MEF requirements. The programme lasted until June 2009.

In the event, neither Macrogestion nor Governa succeeded in improving the rate of budget use and the public services that the municipal government of San Marcos provided to its citizens. Antamina showed good will and the consulting firms were first class, but municipal politics were not open to improvement. In fact, the behaviour of these two consulting firms promoted a negative reaction in the population, turning it against external interventions in general. The employees of these two firms came from Lima, and only worked in San Marcos a few days a week. The journey between Lima and San Marcos took around 12 hours. These employees had won a contractual clause allowing them to start working on Monday afternoon and leave for Lima on Thursday night. This policy set a precedent and the section of the municipal staff that came from other towns started to enjoy the same flexible schedule.

²²³ Interview 2008-115 (San Marcos, 03-07-2008)

²²⁴ Interview 2008-117 (San Marcos, 03-07-2008).

The population of San Marcos adopted a cynical view of the work of these outsiders, considering them to be more interested in money than in the quality of the services they offered. The Front of Defence of the interest of San Marcos demanded that Antamina stop funding consulting firms and NGOs, and channel the money directly into the hands of local people.

Capacity building programmes have frequently gone hand in hand with the promotion of transparency in an attempt to improve municipal government accountability. In 2007, the IFC, in collaboration with the United Kingdom Department for International Development (DFID), USAID and CIDA were especially active in setting up the Organisations for the Improvement of Municipal Investment (OIMI). The OIMIs were coalitions of regional civil society organisations that aimed to analyse and disseminate information about the *canon* transfers received by municipalities and the manner in which they were spending the revenues. These activities were to improve the oversight capacity of local populations and increase municipal government responsiveness to the demands of the public. The first OIMI was formed in Cajamarca in 2005, while branches in Ancash, Moquegua and Tacna were set up in 2007. The OIMI coalition in Ancash included the regional chamber of commerce, industry and tourism; the professional association of engineers; the public university; and Caritas, the Catholic NGO.

From the outset, monitoring the performance of the municipality of San Marcos was part of the OIMI's brief in Ancash, but its work had no significant impact there. First, although the population was already aware of the existence of problems in the municipality, the majority of people tolerated inefficiency and corruption in exchange for jobs in the public works. Second, the OIMI published official information about mining revenues, the percentage of actual spending of this particular budgetary item, and, occasionally, the percentage allocated to different sectors. However, it did not deal with how decisions about the allocation of these resources were made. As was the case with the EITI (Extractive Industries Transparency Initiative) at national level, the focus on revenue details downplayed the analysis of expenditure as the critical strategy in tackling corruption (Kolstad & Wiig, 2009). Moreover, the importance that the OIMI accorded to the percentage of capital budget actually spent reinforced the incentive for municipalities to spend quickly, independent of the quality of the projects. Finally, OIMI dependence on the IFC reined in its freedom and the scope of its mission. The IFC actively supports

the mining industry in Peru and was keen to get the financial support of the main mining companies to finance the functioning of OIMI, which hindered the capacity of OIMI to publish information that was critical of the political allies of the companies. In 2008, the OIMI in Moquegua conducted a survey of popular opinion of the performance of the mayors of Ilo and Moquegua. The mayor of Ilo, a close ally of the SPCC, was portrayed in a very bad light, and the office of the IFC responsible for the OIMI in Lima decided not to publish the results.²²⁵

The analysis in this section reveals that *canon*-rich municipal governments of Ancash had difficulty spending mining revenues on the projects citizens wanted, like water and sanitation, and that local authorities were frequently involved in corruption. However, the analysis also shows that these problems were not at the root of the misuse of mining revenue. The vast amount of *canon* transfers, in combination with popular lack of trust in institutions, and the proliferation of nationally imposed regulations were the reasons for both mining revenue misuse and the persistence of corruption and limited institutional capacity. External attempts to overcome such challenges through the provision of technical support and traditional transparency programmes failed because they did not take into account the system of incentives at work. Mayors maintained their popularity by demonstrating efficiency in a very narrow range of specific tasks, mainly quick spending for the generation of jobs. This strategy contented the local population in a way that distorted the institutional mechanisms for the efficient allocation of revenue and reduced the public's motivation to challenge the corrupt practices of municipal authorities. Nevertheless, capacity building and transparency programmes were politically expedient for the mining companies because they tended to divert popular scrutiny away from corporate practices towards municipal government performance.

8.5 Variations on the same theme: higher technical capacity and the promotion of clientelism in Moquegua

Municipalities in Pasco and, more evidently, in Moquegua had higher capacity levels than those in Ancash. However, municipal governments in Moquegua spend their money in similar ways to those in Ancash. The quick redistribution of *canon*

²²⁵ Personal interview 2008-187 (Moquegua, 05-09-2008).

transfers through the generation of jobs in the public works determined the nature of the expenditure.

In this section, I discuss some specific features of the allocation of resources in Moquegua. I do not attempt to make a detailed analysis of the processes but to point out the similarities and differences with Ancash. The comparison exposes the potential for high levels of mining rents to promote clientelism and to promote the pursuit of short-term benefits independent of the technical capacity of the municipality.

The municipalities of Moquegua and Ancash were similar in terms of the per capita volume of *canon* transfer received during recent years (see Appendix XII). However, municipalities in Moquegua had higher MCI scores. In fact, they were able to implement a high proportion of their investment projects directly without resorting to outsourcing. This system required higher levels of institutional capacity but also had distinct political advantages because it gave mayors direct control over the recruitment of employees.

From 2007 to 2008, most adults in Carumas, San Cristobal, Samegua and Torata worked for their respective municipalities. Mayors recruited their closest allies to staff the municipal bureaucracy, while a high proportion of the remainder of the population was employed in carrying out public works. In 2007, the municipality of Torata employed 650 administrative officers and 1,200 labourers, who were regularly employed in public works financed by *canon* transfers.²²⁶ This represented more than 90 per cent of the total employable population.²²⁷ Similar employment levels were found in neighbouring municipalities. In most cases, mayors had a direct say in deciding who should be hired.

Regulations for the use of *canon* transfers prohibited such revenue financing recurrent expenditure and, therefore, the hiring of workers not directly employed to carry out investment projects. Municipal managers in Moquegua were experienced enough to find a way around the law. They contrived sophisticated mechanisms to

²²⁶ According to information provided by the mayor and the general manager of public works in interviews 2008-186 (Torata, 05-09-2008) and 2008-192 (Torata, 10-09-2008). The number of administrative officers was confirmed by the National Registry of Municipalities (INEI, 2009e).

²²⁷ According to the census, the total employable population of Torata was 3,493 (INEI, 2008a), but approximately 1,500 of them were employees of Cuajone based at the company's mining camp (according to figures from the own company).

enhance flexibility in the use of *canon* transfers. The incorporation of recurrent expenditure into capital investment projects implemented by the municipality was the easiest and most common method. But, they went one step further and crafted mechanisms to turn *canon* transfers into autonomously generated revenue that could be used more flexibly. These mechanisms are built around the purchase and use of municipal machinery. The municipalities designed capital investment projects to purchase heavy machinery, arguing that the initial outlay would reduce the cost of future public works. Once they had acquired the equipment, they adopted one of two alternative strategies. If the municipality contracted a company to carry out the public works, the terms stipulated that the company had to hire the necessary machinery from the municipality. Conversely, municipal governments that wanted to do the work directly without hiring a company tended to cross-hire the machinery with a neighbouring municipality: municipal government X hired municipal government Y's machinery and vice versa.

Such hiring arrangements were frequently overpriced and, moreover, maintenance of the machinery was not a priority as it was simpler to buy a new machine than attempt to budget for proper servicing. The practical result of such subterfuge was that money was transferred from one line item of the budget – *canon* revenue – to a wholly flexible line item through the purchase and accelerated depreciation – almost depredation – of material assets.

Such creative accountancy lent itself to further opportunities for corrupt practices. Popular claims of mismanagement by municipal authorities abounded in Moquegua. Some of them were substantiated. In March 2008, the National Elections Board dismissed the mayor of Torata.²²⁸ He had been accused of nepotism by two of the municipal counsellors after hiring his own brother. He also faced charges of mismanagement, and, in 2010, the court imposed a two-year sentence on him. The other mayors learnt their lesson and, from that moment on, hired out their relatives to adjacent municipalities – as they did with the machinery – to avoid the accusation of nepotism. Although local people knew about the mismanagement of municipal authorities, they did not want to risk losing their jobs. Thus, similar to the situation in Ancash, widespread clientelism hindered the implementation of effective social control.

²²⁸ Decree N ° 076-2008-JNE.

There were some differences between Moquegua and Ancash in terms of the type of project implemented. In the two predominantly urban municipalities – Moquegua and Samegua – the authorities together with the general public prioritised investment in urban infrastructure and ‘conspicuous construction’, while in rural municipalities, irrigation projects and the construction of roads were the main concerns (see Appendix XII). This greater spending in productive projects in rural municipalities seemed to be a clear improvement in comparison to Ancash. However, according to municipal managers, mayors were more interested in providing jobs for the people than in the quality of the initiatives. They confessed that the policy of hiring local people slowed down the construction of projects, adversely affected their quality, and raised total costs. In contrast to other regions in Peru, labourers in public works were protected by the Civil Construction Collective Labour Agreement in Moquegua. Unskilled employees of the municipality earned a monthly salary close to PEN 1,800 (USD 600),²²⁹ the equivalent of experienced workers in this kind of job. This situation had a paradoxical side effect: tance of the mere increase in mining activity – and its associated negative onmental impacts – as a detevour of working for the municipality.

This brief comparison of Moquegua and Ancash throws up a further puzzling element. Surprisingly, the change in welfare indicators between 1993 and 2007 was smaller in the municipalities of Moquegua than in those of Ancash. In fact, various indicators reveal a deteriorating situation from 1993 to 2007 in several of Moquegua’s municipalities (see Appendix XIII). Considering that municipalities in Moquegua have historically enjoyed higher levels of administrative and technical capacity than those in Ancash, this comparatively negative performance suggests the existence of factors related to a variation in behaviour between different mining companies. Some scholars have highlighted the attempts of Antamina to promote development (Sanborn et al., 2007) and there is no doubt about the large scale of its CSR operation. Yet, Southern Peru Copper Corporation (SPCC) has neither historically enjoyed a reputation as a good neighbour nor has it been the most generous of benefactors (Balvín, 1995; Bauch, 1985; Boon, Alexaki, & Herrera Becerra, 2001). Although corporate behaviour might affect changes in welfare

²²⁹ Information provided by the human resource manager of Carumas, and confirmed by an official communication of the regional government of Moquegua (Gobierno Regional de Moquegua, 2008b)

indicators, a rigorous examination of such a hypothesis is beyond the scope of this thesis.

8.6 Conclusion

I started Chapter 7 by asking if the implementation of the NEIS had led to detectable changes in indicators of social and material welfare in the Peruvian mining regions. The analysis of Chapters 7 and 8 confirms that the NEIS has failed to improve the situation of the population living close to the mines. Lack of capacity and corruption does not fully explain the misuse of mining revenue in *canon*-rich municipalities. Municipalities with different levels of capacity present similar problems in using their budget productively and resort to the same type of short-term, clientelistic spending that gives precedence to job creation over effective social investment.

Although I have focused the analysis on the institutional use of *canon* transfers, the importance given to job creation begs the question of what families did with the income earned. If a proportion of the income had been used for individual social expenditure, as in education, it would have compensated to an extent for the inefficient spending of public institutions and would reinforce recent arguments for the direct distribution of mining and oil revenue to the citizens (Moss & Young, 2009; Sandbu, 2006; Segal, 2009). The analysis of how families used these new incomes would require an extensive research that is beyond the scope of this thesis. Based on my observations during the field research, I can only provide some basic information that is far from conclusive.

Peasants' abandonment of their work in agriculture is the most salient social feature in *canon*-rich municipalities. This means that families then use a significant proportion of their earned income in the new public jobs to buy foodstuff. They perceive earning money to buy the food that they previously produced has three advantages: (i) they can widen their diet through more expensive products such as rice, sugar, pasta, biscuits, etc.; (ii) buying food represents a higher social status than producing it; and (iii) it renders a surplus that they can use to buy other goods; for example, it was also very apparent that local shops sold more crockery, pans, radios, televisions, and other household goods. Undoubtedly, people value the new

possibilities generated by their income. It is less clear to what extent the increase in options available to them lead to real improvements in their living standards.

The impact of income on education is also unclear and would need further research. On the one hand families can spend more money on books, school uniforms, transport, and have more room to delay their children's need to earn a living. But on the other hand, the abundance of public jobs has been an important incentive for teenagers to abandon education.

What the last two chapters reveal is that the NEIS has generated new forms of deprivation in mining areas. Historically, big mines have deprived local communities of valuable assets such as water, land and a clean environment, making them more vulnerable to droughts and other natural events, health problems, and changes in the market for their products (Bury, 2002, 2007). The NEIS has tried to compensate for these negative effects by enhancing social spending in mining areas and providing new economic opportunities outside the agriculture sector. The analysis shows that social spending has been quite ineffective and that the NEIS has made local economies increasingly dependent on the *canon* transfers. Deprivation of crucial assets for the peasant economy has not been compensated for by the generation of stable new economic opportunities but with temporary jobs that are only viable in the context of high mineral prices. As diversification of the family income is crucial for escaping poverty in the rural communities of the Andean region (Krishna et al., 2006) increasing dependence on the historically volatile flows of mining revenue seems to be a risky strategy.

Moreover, this increasing dependence on the income provided by public jobs has generated political deprivation. Citizens in mining areas perceive that they have the power to appoint the authorities and to hold them to account, however, municipal and regional authorities in *canon*-rich jurisdictions operate with considerable political autonomy from the citizenship insofar as they provide enough jobs and have the political ability to satisfy different groups. The implementation of the NEIS has also given more political power at local level to mining companies. First, the growing dependence on *canon* transfers makes local authorities and populations alike moderate, at least in the short term, their demands concerning environmental issues and to facilitate the expansion of activities. Second, the direct management of the MPSP gives companies the opportunity to use these financial resources to

buy compliance with their plans. Finally, high volumes of *canon* transfers have attracted the interest of mafia groups that have captured part of the resources in collusion with the municipal and regional authorities. The incursion of these groups into local politics is likely to have a long-lasting effect because they now have incentives to influence the electoral processes by supporting candidates favouring their interests.

Chapter 9

Conclusion

In this chapter, after summarising the main findings of my analysis of the Peruvian case study, I set out to complete the thesis by putting forward some conclusions that those interested in the extractive industries and development elsewhere might find useful.

9.1 What does this study say about the implementation of the NEIS?

Canon minero transfers to sub-national governments in jurisdictions where mines are located, and the active involvement of mining companies in local development constitute what I have labelled the New Extractive Industries Strategy (NEIS). Companies have different policies in different countries to reduce the incidence of social unrest and persuade the local people living around their operations of their beneficial role as promoters of local development.

I argue that Peru is a testing ground for the NEIS. After years of decline in mineral production, Fujimori's government reinstated mining as one of the pillars of economic development. The enactment of the General Mining Law in 1992 was the first step in promoting foreign investment in the sector. The strategy worked well and in the late 1990s, international mining companies started to explore mineral deposits and construct modern mines. However, by the early 2000s, successful popular opposition to new mines in different regions alarmed both the mining companies and the Peruvian government.

They reacted by increasing the proportion of mining revenue devolved to mining jurisdictions (the *canon minero*) and by concentrating it in the municipalities closest to the mines. They hoped that increased amounts of transfer would improve living standards and convince the local people of the advantages of mining. The policy had the virtue of satisfying the demands of other important actors: (i) it fitted perfectly into the IFI-promoted good governance agenda for the democratisation of Peru after the fall of Fujimori's regime; and (ii) it fulfilled the ambitions of political leaders and local populations in mining regions that for many years had been demanding an increase in *canon* transfers.

The escalation in corporate profits in 2004–2008 provided a new opportunity for the mining companies to reinforce their presence at local level. After the presidential elections of 2006, the companies faced the almost certain introduction of a new windfall tax, a proposal that was supported by all the main candidates during the campaign. However, the companies stopped this move by coming to an agreement with President Garcia to set up the Mining Programme of Solidarity with the People (MPSP), a voluntary financial contribution funded by the mining companies aimed at promoting local development.

9.1.1 *The main argument*

In this thesis, I have argued that the implementation of the NEIS has increased the number of social conflicts while failing to show any improvement in the economic and social welfare indicators in mining regions. Although large scale anti-mining increased to a lesser extent than investment in the mining sector in 2004–2008, the proliferation of disputes over the distribution of mining rents more than counterbalanced this achievement (Chapter 5).

I identified two different types of the more frequent ‘distribution’ disputes (Chapter 6). In the first type, peasant communities use social conflict to enhance their bargaining power in negotiations with mining companies over financial compensation and jobs in the mines. Extraordinary corporate profits; popular belief that companies pay less tax than they should; the new image of mining companies as actors with a moral duty to promote local development; and suspicion of collusion between the government and the mining companies all combine to stimulate this type of conflict.

In the second type, local populations and sub-national authorities engage in disputes over the control and use of *canon minero* transfers. I identified three different sub-types: (i) the population uses social conflict to encourage swifter expenditure of transfers; (ii) sub-national authorities use conflict as a means of diverting pressure about the use of resources to other levels of government, and to gain control over additional *canon* transfers; and (iii) municipalities and regions fight amongst themselves in an attempt to win jurisdiction over territories with mineral deposits and water sources, as such resources guarantee future mining revenues.

The implementation of the NEIS could still be constructive if the higher frequency of conflicts were tempered by a lower degree of violence or greater capacity to generate long-term settlements and positive institutional innovations. Unfortunately, this is not the case; rather, both types of ‘distributional’ social conflicts frequently result in several serious and even fatal casualties. Moreover, they tend to have little impact on the improvement of the regulations and governance of the mining sector because they focus on immediate local benefits and not on wider policy changes.

Neither has the NEIS made a positive impact in mining jurisdictions on welfare and economic indicators. I found that regions and municipalities receiving high volumes of *canon* transfers did not improve their indicators more than the rest of the country (Chapter 7). The Peruvian government and the mining companies tend to blame sub-national governments’ lack of managerial capacity for this striking dearth of positive outcomes. The importance of managerial capacity notwithstanding, my research reveals that municipal authorities have strong political incentives to prioritise short-term quick spending over better planned long-term investment in key public services (Chapter 8).

An analysis of the political dynamics leading to such short-termism in the expenditure of *canon* transfers also calls into question the conventional argument of the linear relationship between lack of development and conflict. The Peruvian government and the mining companies assume that lack of development and poor quality public services cause social conflict in mining areas. Therefore, they think that increased spending on development projects organised by mining companies and sub-national governments should reduce the incidence of social unrest. Although this strategy clearly does not work, they remain convinced, putting the blame for failure on the inability of sub-national governments to make the best use of *canon* transfers.

In my research into *canon*-rich municipalities, I found that the government’s claim that there is a relationship between lack of development and conflict is flawed. Such a relationship doubtless exists, but it is more complex than the promoters of the NEIS anticipated. The causal link between conflict and development also runs in the opposite direction: ‘distributional conflicts’ generated by the implementation of the NEIS have exacerbated the inefficient use of *canon* transfers by sub-national governments irrespective of their managerial capacity.

Central government and the mining companies' response to the escalation of conflict has been to divert popular attention towards the performance of sub-national authorities. Mining companies widely advertise the amount of *canon* transferred to regional and municipal governments to demonstrate their contribution to local development through the payment of taxes. They have also been quite active in promoting local authorities' accountability to their citizens, using the percentage of *canon* transfers actually spent as the main indicator of sub-national government performance. The national government has also resorted to the same tactic of highlighting the lack of capacity of sub-national governments in order to counteract demands for additional resources from mining regions.

Company and national government officials' comments about the low level of budgetary expenditure in mining jurisdictions tend to prompt quick public spending through two different mechanisms. First, such expenditure becomes the benchmark of political capacity; mayors and regional presidents feeling compelled to demonstrate that they are able to spend the money. Second, the population demands quicker spending on account of its apprehension that central government might otherwise confiscate some of the *canon* transfers.

The result is that regional and municipal governments are under pressure to spend their *canon* transfers quickly. This obligation is especially strong in small municipalities where it is relatively easy to collect the necessary number of signatures to demand a new election. Mayors in these localities are well aware that if they do not satisfy popular demands in a timely fashion they will be removed from office without the chance to complete their term of office. Therefore, they try to appease the population by resorting to creating jobs in public works irrespective of the quality and usefulness of such projects. This widespread clientelism renders externally imposed capacity building and anti-corruption programmes ineffectual because neither local authorities nor the population have the incentive to make them work.

9.1.2 *Limitations of the analysis*

I have used a combination of methods to enhance the reliability of my analysis. Yet, the scarcity of data disaggregated at regional and municipal level and the short time that has passed since the implementation of the NEIS impose some

limitations. They do not challenge the validity of the results, but demand to be placed in context.

Lack of data at municipal and regional levels is the first limitation. Two examples illustrate this. First, I found that *canon*-rich municipalities had not improved their welfare indicators more than other municipalities; however, it is very likely that the massive generation of public jobs has increased household income in these same municipalities, at least in the short-term. This income effect cannot be measured because there are no available data on household income at municipal level and the effect disappears when income data is aggregated at regional level.

The second example relates to the impact of different corporate strategies. The analysis of the change in welfare indicators at municipal level (1993–2007) reveals that some of these indicators improved significantly more in *canon*-rich municipalities in Ancash than in similar municipalities in the rest of the country. However, analysis of the allocation of resources in Ancash and Moquegua indicate that the performance of municipal governments fails to explain these differences. Local authorities in both regions resorted to the same kind of clientelistic strategies, but municipalities in Ancash improved their welfare indicators more than those in Moquegua did (Chapter 8). This lack of correlation between the performance of municipal governments and changes in welfare indicators would appear to signal the possible existence of a ‘company effect’. The examination of this hypothesis would require the analysis of detailed information on corporate involvement at local level, but there is no data available.

The short time frame of the investigation is the second limiting factor. The policies that constitute the NEIS were first implemented in 2002, when the *canon minero* increased from 20 per cent to 50 per cent of corporation tax paid by mining companies. However, it was not until 2004 that substantial volumes of *canon* transfers started to flow to regional and municipal governments. Thus, the discouraging results of the implementation of the NEIS that I have described in this thesis apply to a very short period of time. This raises the question of to what extent these results are valid in the longer term.

There is no clear answer. Some analysts argue that the negative effects I have identified are time-bound. The introduction of the NEIS coincided with the

unprecedented generation of mining revenues, and neither local authorities nor their populations could adjust to this new situation quickly enough. They anticipate that the experience of these early years will help improve the process of allocation of resources in the future, and the populations of *canon*-rich regions and municipalities will eventually realise that they need to focus on the long term.²³⁰

I would be happy to see this optimistic scenario materialise, but there are signs that contradict the existence of such a linear learning process. I present three of them.

First, the political system at local level is not conducive to the assimilation of historical lessons. The lack of political parties that have longer term policies to provide some continuity, the lack of a professional body of civil servants and an extremely low rate of re-election of the incumbents all mean that regional and municipal governments have to begin again almost from scratch after each election. Furthermore, electoral preferences are generally shaped by the personal appeal of the candidates rather than by programme proposals. Candidates and the electorate alike believe that efficient management depends on the skills and moral values of the authorities. They do not realise that if a system of perverse incentives remains in place, newly elected authorities tend to reproduce the short-sighted policies of their predecessors.

Second, popular participation mechanisms have lost their original political inspiration as promoters of ‘deliberative’ democracy (Avritzer, 2002). They do not provide space for the different actors to reflect on the process of decision-making, the criteria they employ in such a process, or the results of previous decisions. When popular participation is organised by municipal or regional governments it is reduced to a managerial technique that has to comply with strict regulations. Alternatively, the population uses legal provision for the promotion of participation as a last resort in order to demand accountability or directly remove the authorities. Unfortunately, neither of these processes commonly leads to reflection or learning.

Finally, the implementation of the NEIS has generated distortions that tend to replicate themselves. One of the most striking is the way in which mafia-style groups have infiltrated regional and municipal politics. In Chapter 7, I described the interaction between these mafia and some municipal governments in Ancash. In

²³⁰ Interview 2008-200 (Lima, 29-09-2008).

2010, the scale of the problem became even more evident when, on the 12th of July, the interim president of the region was murdered; and only a few days later, a regional councillor was shot and his son-in-law killed.

The reasons behind the assassination of the interim president remain obscure, but there are some clues to the motivation for the attack on the councillor. Immediately after the assault, the victim accused Cesar Alvarez – the former regional president, who had resigned to stand for re-election. The councillor accused Alvarez of wanting to block his appointment as the new interim president because he feared revelations of evidence incriminating him in corruption (El Comercio, 2010). In September 2010, the police concluded that the former general manager of the region and close ally of Alvarez had hired an assassin to dispatch the councillor (La República, 2010). This grim tale illustrates the fact that the capture of part of the *canon minero* by mafia groups will make it difficult for new incumbents to change the way in which resources are allocated.

9.2 Lessons from the Peruvian case

In the introduction to this thesis, I argued that the implementation of the NEIS in Peru is a testing ground for a strategy that the mining industry could adopt where extraction increases in developing countries. My research reveals that this strategy has not been successful in Peru.

I have also found that context matters, and that three features of the political economy of contemporary Peru are crucial to any understanding of the lack of positive results of the NEIS: (i) the capture of the Peruvian central state by private business and its limited capacity to represent other interests; (ii) the weak participation of local political leaders in national political structures, which motivates them to pursue independent strategies and objectives, and to maximise resource transfers to their own localities; and (iii) the inability of the weak, ‘captured’ central state to enforce the law and to control and arbitrate between conflicts of interest between mining companies and a variety of competing local social and political groups.

These features are common to several developing countries. Thus, although we cannot automatically conclude that the same policies will generate the same problems elsewhere, it is reasonable to assume that the Peruvian experience can

provide some lessons for countries with similar political features trying to make the most of their mineral endowments.

I summarise these lessons in two basic propositions: (i) the NEIS is no substitute for a wider revision of key aspects of the mining regime and the political system; and (ii) if the NEIS is used as a quick fix, it may hinder the long-term viability of the mining industry.

First, the NEIS was implemented in Peru in order to maintain radical market-friendly mining policies, without addressing some of the main problems behind the original anti-mining conflicts. The mining companies and the government wanted to avoid undertaking a complete revision of the industry that might have included a greater say for local populations and authorities in the process of granting mining rights, and the reinforcement of regulatory and monitoring bodies. They assumed that throwing money at the problem would ease local resistance.

To some extent, the strategy worked and raised the threshold of discontent for the outbreak of new anti-mining conflicts. In Chapter 6, I discuss the case of Quellaveco, the new Anglo American mine in Moquegua, in which the inflow of *canon minero* transfers to the municipalities there changed people's perceptions of the benefits of mining and facilitated popular acquiescence to the operation.²³¹

However, the implementation of the NEIS did not halt anti-mining conflicts. At the beginning of this thesis, I told the story of the struggle of my friend Santiago and his Awajun companions against the presence of oil and mining companies in their territory. Communities around the Rio Blanco project in Piura and peasant organisations in Islay (Arequipa) also resisted the construction of new mines, genuinely believing that the industry would destroy their sources of livelihood. In all these cases, only true recognition of people's right to prior and informed consent to activities affecting their lives (Mackay, 2004), and the introduction of ecological zoning (Bebbington & Bury, 2009) will reduce the incidence of conflict.

The mining companies and the Peruvian government oppose the introduction of these institutional innovations because they think that such initiatives will give local

²³¹ Yet, it is also clear that Anglo American did not rely exclusively on the implementation of the NEIS but also significantly modified its original proposal in order to incorporate local demands for improved water management.

communities the right to veto mining activities; which they fear will obstruct the national development of the industry. My investigation into mining regions reveals that this perspective is not helpful. In a few places only – and generally with good reason – do people radically oppose the presence of mines. In most cases, people demand a more open dialogue, assurances about their livelihoods, improvements to the design of the mines, and job opportunities. Moreover, the introduction of these institutional innovations can also help reduce – or at least manage more easily – conflicts over the distribution of mining rents, the most frequent type of contentious dispute in recent years.

As I illustrate in the analytical framework (Section 4.3) and in my analysis of different types of conflict (Chapter 6), the popular perception of mining legislation as being imposed by the government in collusion with the companies fans the flames for local communities to employ radical anti-mining discourses to gain political leverage in their claims for material compensation.

For example, in the case of type 2 conflicts – those that I have dubbed ‘enhancing bargaining power’ – local communities strengthen their negotiating position by combining claims for material compensation with complaints about the environment and intimations of growing opposition to mining. Such a mechanism is effective because the companies cannot risk the emergence of a strong anti-mining movement and are thus willing to keep at bay the most provocative threats in exchange for payment. However, this is only a quick-fix solution because the claimants’ successful outcome provides them with the incentive to pursue new objectives.

The recognition of people’s right to prior and informed consent to extractive activities would improve the situation in at least two ways. First, once the population had accepted the existence or expansion of a mine they would not be able to employ the threat of an anti-mining movement. Although this would not resolve social tensions around the distribution of rent, it would clarify the situation and help to manage it more appropriately. Second, if people’s opinions and interests were really taken into consideration, they would weigh the practical implications of serious opposition to mining more carefully. In some mining regions, it is not unusual to find groups that express opposition to the industry although this is not the real bone of contention. Confronted with the total shutdown of an operation,

most of them would say that they did not oppose mining per se but the way in which the companies went about it. However, as they are aware that their opposition will not bring the industry down since the government unreservedly supports the companies' operations, they adopt radical discourses in order to gain leverage and influence company policy, no matter how marginally.²³²

Of course, the effective implementation of the right to prior and informed consent and the introduction of ecological zoning would mean that some corporate projects could not be developed. There would be cases of genuine opposition to mining in which people thought that they would be better off without a mine in the neighbourhood. However, the mining companies and the government should weigh this theoretical 'loss' against the greater political stability they would gain for the sector as a whole.

Given the government's compulsion to please the mining companies, the introduction of these institutional innovations depends on the calculations of the main operations. The big transnational firms, which are usually more concerned about political instability and more sensitive to the reputational cost caused by protracted conflict, are in the best position to play a prominent role in bringing about these changes.

In addition to the reduction of conflicts, the mining companies and the national government had other objective. They believed that in returning some of the profits to producer municipalities and regions, they could bypass the historical inability of the centralised Peruvian state to reach the rural areas of the country, without reforming the whole public apparatus. This shortcut has not worked either. Populations in mining regions feel that although the state might send them money, it does not really care about their plight: "The government is only interested in the mine not in the people."²³³ The absence of the central state in the provision of public services; the imposition of centrally designed regulations aimed at tightly controlling the activities of sub-national governments; and the simultaneous lack of interest of the judiciary and the central government in stopping cases of blatant corruption have reinforced popular distrust in the state.

²³² Interviews 2008-030 (Pasco, 29-04-2008); 2008-050 (Pasco, 10-05-2008); 2008-189 (Moquegua, 08-09-2008).

²³³ Public meeting in Cerro de Pasco (2008-005; Cerro de Pasco, 20-05-2008).

The second lesson makes reference to a trade-off between maximising the short-term profits of the mining companies and generating an appropriate environment for the future of the sector. The Peruvian government has tried to attract further investment in mining by bowing to the demands of companies already operating in the country. Central government decision not to impose a windfall tax, and its tendency to minimise the importance of the official requirement to obtain a social licence from the local community before starting exploration activities are examples of these pro-mining policies.

I argue that these policies are short-sighted. They erode the legitimacy of the state by portraying the image of a government in collusion with the mining companies; yet, they also damage the mining companies' public image, and fuel the more radical discourses for either the nationalisation of natural resources or the imposition of severe restrictions to new mining operations.

Something similar occurs in the tendency of mining companies to play a more state-like role at the local level. The MPSP has reinforced this tendency by empowering them to run parallel development planning systems. Such power makes people suspicious of the real intentions of the companies, placing them at the forefront of popular discontent. Bypassing public institutions through the implementation of social programmes can yield positive results in the extremely short term, but it generates more instability in the long term.

In summary, the implementation of the NEIS has not been successful in either reducing social conflict or promoting development in mining jurisdictions. The translation of mining into development has been historically problematic and it seems that the NEIS is not an effective short cut to overcoming these difficulties. If the Peruvian government really wants to make mining a central pillar of the country's development, it needs to undertake the revision of both its policies for the promotion and management of the mining sector and the way in which the state responds to rural populations.

REFERENCES

- Aguilar, J. (2008). *La industria minera y el desarrollo local*. Retrieved 23 September, 2009, from <http://www.eclac.org/drni/noticias/noticias/3/32703/Sr.Aguilar.pdf>
- Ahmad, E., & Garcia-Escribano, M. (2006). *Fiscal decentralization and public subnational financial management in Peru*. IMF Working Paper 06/120. Washington: International Monetary Fund.
- Ahmad, E., & Mottu, E. (2003). Oil revenue assignments: country experiences and issues. In J. Davis, R. Ossowski & A. Fedelino (Eds.), *Fiscal policy formulation and implementation in oil-producing countries*. Washington: International Monetary Fund.
- Alcocer Martínez, A. (2006). Conjetura y postura frente al dicho 'el Perú es un mendigo sentado en un banco de oro'. *Boletín de la Academia Peruana de la Lengua*, 41, 45-48.
- Alejos Calderón, W., & Zas Friz Burga, J. (2005). *Concertando la descentralización: balance del diseño normativo*. Lima: Fondo Editorial del Congreso del Perú.
- Antamina. (2008). *Responsabilidad social*. Retrieved October 23, 2008, from http://www.antamina.com/04_social/index.html
- Antamina. (2009). *Fondo Minero Antamina*. Retrieved 6 July, 2010, from <http://www.antamina.com/boletin/zips/reporte-fondo-minero2008.pdf>
- Apoyo. (2009a). *La competitividad del sector minero peruano*. Lima.
- Apoyo. (2009b). *Minería: ¿por qué tanto problema? Visiones de los dos lados*. Lima.
- Aragón, F., & Casas, C. (2009). Technical capacities and local spending in Peruvian municipalities. *Perspectivas*, 7(1), 89-113.
- Aragón, F., & Rud, J. P. (2009). *The blessing of natural resources: evidences from a Peruvian Gold mine*. Working Paper N° 2009-015. Lima: Banco Central de Reserva del Perú.
- Arellano-Yanguas, J. (2008). *A thoroughly modern resource curse? The new natural resource policy agenda and the mining revival in Peru*. Brighton: Institute of Development Studies.
- Aroca, J. (2008). El caso de Tintaya. In M. Scurrah (Ed.), *Defendiendo derechos y promoviendo cambios: el estado, las empresas extractivas y las comunidades locales en el Perú*. Lima: Instituto de Estudios Peruanos.
- Astete, J. (2005). *Informes Técnicos N° 30. Determinacion de plomo en sangre y factores asociados en niños y mujeres gestantes de las poblaciones de Quiulacocha y Champamarca (Cerro de Pasco)*. Lima: Instituto Nacional de Salud.
- Auty, R. (1993). *Sustaining development in mineral economies: the resource curse thesis*. London: Routledge.
- Auty, R. (2006). Mining enclave to economic catalyst: large mineral projects in developing countries. *Brown Journal of World Affairs*, 13(1), 135-145.

- Auty, R. (2007). Patterns of rent extraction and deployment in developing countries: implications for governance, economic policy and performance. In G. Mavrotas & A. Shorrocks (Eds.), *Advancing development: core themes in global economics*. Basingstoke: Palgrave Macmillan.
- Avritzer, L. (2002). *Democracy and the public space in Latin America*. Princeton; Oxford: Princeton University Press.
- Bajo la Lupa. (2009, November 2009). Minería, petróleo y comunidades. *Bajo la Lupa*.
- Balvín, D. (1995). *Agua, minería y contaminación: el caso Southern Perú*. Ilo: Labor.
- Ballard, C., & Banks, G. (2003). Resource wars: the anthropology of mining. *Annual Review Anthropology*, 32(-), 287-313.
- Banco Central de Reserva del Perú. (2009). *Estadísticas*. Retrieved 29 March, 2009, from <http://www.bcrp.gob.pe/bcr/Cuadros/Cuadros-Anuales-Historicos.html>
- Banks, G. (2002). Mining and the environment in Melanesia: contemporary debates reviewed. *The Contemporary Pacific*, 14(1), 39-67.
- Banks, G. (2005). Linking resources and conflict the Melanesian way. *Pacific Economic Bulletin*, 20(1), 185-191.
- Basedau, M., & Lay, J. (2009). Resource curse or rentier peace? The ambiguous effects of oil wealth and oil dependence on violent conflict. *Journal of Peace Research*, 46(6), 757-776.
- Bauch, E. (1985). Comunidad, conflicto y cambio social: el caso de la Southern Peru Cooper Corporation. *Allpanchis*, XXII(26), 9-33.
- Bebbington, A. (2007). *Mining and development in Peru*. London: Peru Support Group.
- Bebbington, A., Bury, J., Humphreys Bebbington, D., Lingán, J., Muñoz, J. P., & Scurrah, M. (2007). Movimientos sociales, lazos transnacionales y desarrollo territorial rural en zonas de influencia minera: Cajamarca-Perú y Cotacachi-Ecuador. In A. Bebbington (Ed.), *Minería, movimientos sociales y respuestas campesinas: una ecología política de transformaciones territoriales*. Lima: Instituto de Estudios Peruanos.
- Bebbington, A., & Bury, J. T. (2009). Institutional challenges for mining and sustainability in Peru. *Proceedings of the National Academy of Sciences*, 106(41), 17296-17301.
- Bebbington, A., Hinojosa, L., Humphreys-Bebbington, D., Burneo, M. L., & Warnaars, X. (2008). Contention and ambiguity: mining and the possibilities of development. *Development and Change*, 39(6), 887-914.
- Bebbington, A., Humphreys Bebbington, D., Bury, J., Lingán, J., Muñoz, J. P., & Scurrah, M. (2008). Mining and social movements: struggles over livelihood and rural territorial development in the Andes. *World Development*, 36(12), 2888-2905.
- Beck, N. (2001). Time-series-cross-section data: what have we learned in the past few years? *Annual Review Political Science*, 4(1), 271-293.
- Beck, N., & Katz, J. (1995). What to do (and not to do) with time-series cross-section data. *American Political Science Review*, 89(3), 634-647.

- Becker, S., & Ichino, A. (2002). Estimation of average treatments effects based on propensity scores. *The Stata Journal*, 2(4), 358-377.
- BHP Billiton. (2009). *Financial Report 2008*. Retrieved 20 April, 2010, from <http://www.bhpbilliton.com/bbContentRepository/docs/financialResultsFy08.pdf>
- Birdsall, N., & Subramanian, A. (2004). Saving Iraq from its oil. *Foreign Affairs*, 83(4), 77-89.
- Boon, R., Alexaki, A., & Herrera Becerra, E. (2001). The Ilo Clean Air Project: a local response to industrial pollution control in Peru. *Environment and Urbanization*, 13(2), 215-232.
- Bosschini, A., Petterson, J., & Roine, J. (2005). *Resource curse or not: a question of appropriability*. Stockholm: Stockholm School of Economics.
- Bourque, S. C., & Palmer, D. S. (1975). Transforming the rural sector: government policy and peasant response. In A. Lowenthal (Ed.), *The Peruvian experiment: continuity and change under military rule*. Princeton: Princeton University Press.
- Bridge, G. (2004). Contested terrain: mining and the environment. *Annual Review of Environment and Resources*, 29(1), 205-259.
- Bridge, G. (2008). Global production networks and the extractive sector: governing resource-based development. *Journal of Economic Geography*, 8(3), 389-419.
- Brinkerhoff, D., Brinkerhoff, J., & McNulty, S. (2007). Decentralization and participatory local governance: a decision space analysis and application to Peru. In G. S. Cheema & D. A. Rondinelli (Eds.), *Decentralizing Governance: emerging concepts and practices*. Cambridge, Mass.: Ash Institute for Democratic Governance and innovation, John F. Kennedy School of Government, Harvard University.
- Brosio, G. (2003). Oil revenue and fiscal federalism. In J. Davis, R. Ossowski & A. Fedelino (Eds.), *Fiscal policy formulation and implementation in oil-producing countries*. Washington: International Monetary Fund.
- Brunnschweiler, C. (2008). Cursing the blessings? Natural resource abundance, institutions, and economic growth. *World Development*, 36(3), 399-419.
- Bulte, E. H., Damania, R., & Deacon, R. (2005). Resource intensity, institutions, and development. *World Development*, 33(7), 1029-1044.
- Bury, J. (2002). Livelihoods, mining and peasant protest in the Peruvian Andes. *Journal of Latin American Geography*, 1(1), 3-19.
- Bury, J. (2007). Minería, migración y transformación de los medios de subsistencia en Cajamarca, Perú. In A. Bebbington (Ed.), *Minería, movimientos sociales y respuestas campesinas: una ecología política de transformaciones territoriales*. Lima: Instituto de Estudios Peruanos.
- Caballero, V. (2009). Los conflictos sociales en el Perú 2006-2008. In C. A. d. Juristas (Ed.), *Punto de encuentro: creando una cultura de diálogo para la gestión de los conflictos en el Perú*. Lima: Comisión Andina de Juristas.
- Cabrero, E. (2007). Government decentralization and decentralized governance in Latin America: the silent revolution of the local level? In G. S. Cheema & D. A. Rondinelli (Eds.), *Decentralizing Governance: emerging concepts and*

- practices*. Cambridge, Mass.: Ash Institute for Democratic Governance and innovation, John F. Kennedy School of Government, Harvard University.
- Caselli, F., & Michaels, G. (2009). *Do oil windfalls improve living standards? Evidence from Brazil*. Discussion Paper n° 7579. London: Centre for Economic Policy Research.
- Castillo Castañeda, P. (2007). Las comunidades campesinas en el siglo XXI: balance jurídico. In Allpa (Ed.), *¿Qué sabemos de las comunidades campesinas*. Lima: CEPES.
- Castillo, M., & Urrutia, J. (2007). *Participación de las comunidades campesinas en el gobierno local: un desafío político*. Lima: Grupo propuesta ciudadana.
- Collier, D. (1975). Squatter settlements and policy innovation in Peru. In A. Lowenthal (Ed.), *The Peruvian experiment: continuity and change under military rule*. Princeton: Princeton University Press.
- Collier, D. (1995). Trajectory of a concept: 'corporatism' in the study of latin american politics. In P. Smith (Ed.), *Latin America in comparative perspective: new approaches to methods and analysis*. Boulder: Westview Press.
- Collier, P., & Hoeffler, A. (1998). On economic causes of civil war. *Oxf. Econ. Pap.*, 50(4), 563-573.
- Collier, P., & Hoeffler, A. (2004a). Greed and grievance in civil war. *Oxf. Econ. Pap.*, 56(4), 563-595.
- Collier, P., & Hoeffler, A. (2004b). The political economy of secession. In H. Hannum & E. Babbitt (Eds.), *Negotiating self-determination*. Lanham, MD: Lexington Books.
- Collier, P., & Hoeffler, A. (2005). Resource rents, governance, and conflict. *Journal of Conflict Resolution*, 49(4), 625-633.
- CONASEV. (2010). *Información de empresas*. Retrieved 20 April, 2010, from http://www.conasev.gob.pe/eeff/eeff_x_empresa.asp
- Congreso de la República - Perú. (2003a). Diario de los debates de la sesión plenaria de los días 21 y 28 de Agosto. Lima.
- Congreso de la República - Perú. (2003b). Dictamen de la Comisión de Energía y Minas sobre proyectos de ley para modificación de la Ley N° 27506. Lima.
- Congreso de la República - Perú. (2004a). Diario de los debates de la sesión plenaria de los días 7 y 15 de Julio Lima.
- Congreso de la República - Perú. (2004b). Dictamen de la Comisión de Economía e Inteligencia Financiera sobre proyectos de ley que modifica las leyes N° 27506 y N° 28077. Lima.
- Congreso de la República. (2003). Informe ampliatorio del caso Pierina. Comisión investigadora encargada de cumplir las conclusiones y recomendaciones a las que arribaron las cinco comisiones investigadoras del periodo legislativo 2001-2002. Lima: Congreso de la República.
- Consejo Nacional de Descentralización. (2004). *Comprendiendo la descentralización: un enfoque legal*. Lima: Agencia Española de Cooperación Internacional.
- Contraloría General de la República. (2010). *Operación Condor: resumen de casos*. Lima.

- Cooperación. (2006). *Informe de conflictos mineros: los casos de Majaz, Las Bambas, Tintaya y La Oroya*. Lima: Cooperación.
- Cotler, J. (1968). The mechanics of internal domination and social change in Peru. *Studies in Comparative International Development*, 3(12), 229-246.
- Cotler, J., Barrenechea, R., Glave, M., Grompone, R., & Remy, M. I. (2009). *Poder y cambio en las regiones*. Lima: PNUD - Instituto de Estudios Peruanos.
- Crabtree, J. (1992). *Peru under Garcia: an opportunity lost*. Basingtoke: Macmillan.
- Crabtree, J. (2000). Populism old and new: the Peruvian case. *Bulletin of Latin American Research*, 19(2), 163-176.
- CVR/Peru. (2004). *Comisión de la verdad y reconciliación: Informe final: Perú, 1980-2000*. Lima: Comisión de la Verdad y Reconciliación.
- Cheema, G. S. (2007). Devolution with accountability: learning from good practices. In G. S. Cheema & D. A. Rondinelli (Eds.), *Decentralizing Governance: emerging concepts and practices*. Cambridge, Mass.: Ash Institute for Democratic Governance and Innovation, John F. Kennedy School of Government, Harvard University.
- Cheshire, L. (2010). A corporate responsibility? The constitution of fly-in, fly-out mining companies as governance partners in remote, mine-affected localities. *Journal of Rural Studies*, 26(1), 12-20.
- Davis, G. A. (1995). Learning to love the Dutch disease: Evidence from the mineral economies. *World Development*, 23(10), 1765-1779.
- De Echave, J., Diez, A., Huber, L., Revesz, B., Ricard, X., & Tanaka, M. (2009). *Minería y conflicto social*. Lima: Instituto de Estudios Peruanos.
- De Echave, J., & Torres, V. (2005). *Hacia una estimación de los efectos de la actividad minera en los índices de pobreza en Perú*. Lima: Cooperación.
- De Soto, H. (1989). *The other path*. New York: Basic Books.
- De Soysa, I., & Neumayer, E. (2007). Resource wealth and the risk of civil war onset: result form a new dataset on natural resource rents, 1970-1999. *Conflict Management and Peace Science*, 24(3), 201-218.
- De Wind, A. (1985). De campesinos a mineros: el transfondo de las huelgas en las minas del Perú. *Allpanchis*, XXII(26), 247-285.
- De Wind, A. (1987). *Peasants become miners: the evolution of industrial mining systems in Peru 1902-1974*. London: Garland Publishing Inc.
- Defensoría del Pueblo. (2009). *Reporte de conflictos sociales*. Retrieved December 19, 2009, from <http://www.defensoria.gob.pe/conflictos-sociales-reportes.php>
- Degregori, C. I. (1998). Harvesting storms: peasant rondas and the defeat of Sendero Luminoso in Ayacucho. In S. Stern (Ed.), *Shining and other paths: war and society in Peru, 1980-1995*. Durham: Duke University Press.
- Desai, R. M., Freinkman, L., & Goldberg, I. (2005). Fiscal federalism in rentier regions: evidence from Russia. *Journal of Comparative Economics*, 33(4), 814-834.
- DESCO. (2009). *Resumen Semanal*. Retrieved 30 October, 2009, from <http://www.desco.org.pe/resumen-semanal.shtml>
- Diaz Palacios, J. (1990). *Municipio: democracia y desarrollo*. Lima: IPADEL.

- Diez , A. (2006). Organizaciones colectivas, recursos y pueblos indígenas en el Perú. In F. Eguren (Ed.), *Reforma agraria y desarrollo rural en la región andina*. Lima: CEPES.
- Diez , A. (2007). Organización y poder en comunidades, rondas campesinas y municipios. In Allpa (Ed.), *¿Qué sabemos de las comunides campesinas?* Lima: CEPES.
- Dore, E. (1988). *The Peruvian mining industry: Growth, stagnation and crisis*. London: Westview Press.
- Dunning, T. (2008). *Crude democracy*. Cambridge: Cambridge University Press.
- Dunning, T. (2010). Endogenous oil rents. *Comparative Political Studies*, 43(3), 379-410.
- Durand, F. (2005). *La mano invisible del estado: efectos del neoliberalismo en el empresariado y la política*. Lima: Friedrich Ebert Stiftung.
- Durand, F. (2007). *El Perú fracturado: formalidad, informalidad y economía delictiva*. Lima: Fondo Editorial del Congreso del Perú.
- ECLAC. (2005). *Demographic Bulletin Nº 76: Latin America, urban and rural population projections*. Santiago de Chile: ECLAC.
- ECLAC. (2010). *Bases de datos y publicaciones estadísticas*. Retrieved 28 March, 2010, from <http://www.eclac.org/estadisticas/bases/>
- Echave de, J., Hoetmer, R., & Palacios, M. (Eds.). (2009). *Minería y territorio en el Perú: conflictos, resistencias y propuestas en tiempos de globalización*. Lima: CooperAcción.
- Echave de, J., Keenan, K., Romero, M. K., & Tapia, A. (2005). *Los procesos de diálogo y la administración de conflictos en territorios comunales: el caso de la mina Tintaya en el Perú*. Lima: Cooperacion.
- Eggert, R. (2001). *Mining and economic sustainability: national economies and local communities*. London: IIED.
- Eguren, F. (2006). Reforma agraria y desarrollo rural en el Perú. In F. Eguren (Ed.), *Reforma agraria y desarrollo rural en la región andina*. Lima: CEPES.
- EITI. (2005). *Extractive industries transparency initiative:source book*. Retrieved 4 October, 2007, from http://www.eitransparency.org/UserFiles/File/keydocuments/sourcebookmar_ch05.pdf
- EL Brocal. (2010). *Responsabilidad social*. Retrieved 8 May, 2010, from http://www.elbrocal.com.pe/responsabilidad_social/sociales.php
- El Comercio. (2008a, 28 April). Alan García pide a las mineras invertir mejor en aporte voluntario. *El Comercio*.
- El Comercio. (2008b, 11 May). Entrevista exclusiva al presidente de la República: 'Hay un cargamontón urdido para eliminar el orden democrático'. *El Comercio*, p. a4.
- El Comercio. (2008c, 31 January). ¿Es el canon una pesadilla? *El Comercio*, p. a4.
- El Comercio. (2008d, 16 June). Un general y cerca de cien efectivos de la Policía Nacional continúan secuestrados en Moquegua. *El Comercio*, pp. 1-3.
- El Comercio. (2009, 19 September). Xstrata Copper invertira US\$ 5100 mlls. *El Comercio*, p. b1.

- El Comercio. (2010, 22 July). Consejero acusa a presidente regional de Ancash de ataque. *El Comercio*, p. 14.
- Escobal, J., & Torero, M. (2003). *Adverse geography and differences in welfare in Peru*. Geneva: Word Institute for Development Economics Research.
- Evans, G., Goodman, J., & Lansbury, N. (Eds.). (2002). *Moving mountains: communities confront mining and globalisation*. London: Zed Books.
- Fearon, J. D. (2005). Primary commodity exports and civil war. *Journal of Conflict Resolution*, 49(4), 483-507.
- Filer, C. (1990). The Bougainville rebellion, the mining industry and the process of social disintegration in Papua New Guinea. *Canberra Anthropology*, 13(1), 1-39.
- Filer, C., Burton, J., & Banks, G. (2008). The fragmentation of responsibilities in the Melanesian mining sector. In C. O'Faircheallaigh & S. Ali (Eds.), *Earth matters: indigenous peoples, the extractive industries and corporate social responsibility*. Sheffield: Greenleaf Publishing.
- Filer, C., & Macintyre, M. (2006). Grass roots and deep holes: community responses to mining in Melanesia. *The Contemporary Pacific*, 18(2), 215-231.
- Fiszbein, A. (1997). The Emergence of local capacity: lessons from Colombia. *World Development*, 25(7), 1029-1043.
- Flores Galindo, A. (1974). *Los mineros de Cerro de Pasco* (1993 ed.). Lima: Fundación Andina.
- Fondoempleo. (2010). *Aportantes a Fondoempleo*. Retrieved 7 May, 2010, from <http://www.fondoempleo.com.pe/aportantes.htm>
- Fraser Institute. (2009). *Annual survey of mining companies 2008/2009*. Vancouver: Fraser Institute.
- Freinkman, L., & Plekhanov, A. (2009). Fiscal decentralization in rentier regions: evidence from Russia. *World Development*, 37(2), 503-512.
- Frynas, J. G. (2000). *Oil in Nigeria: conflict and litigation between oil companies and village communities*. Münster: Lit Verlag.
- Frynas, J. G. (2005). The false developmental promise of corporate social responsibility: evidence from multinational oil companies. *International Affairs*, 81(3), 581-598.
- Garay, C., & Tanaka, M. (2009). Las protestas en Perú entre 1995 y 2006. In R. Grompone & M. Tanaka (Eds.), *Entre el crecimiento económico y la insatisfacción social: las protestas sociales en el Perú actual*. Lima: Instituto de Estudios Peruanos.
- García de Chu, I., & Piazza, M. d. C. (1998). *Sociedad y gobierno local: espacios de concertación y democracia*. Lima: DESCO.
- García Pérez, A. (2007a, 28 Octubre). El síndrome del perro del hortelano. *El Comercio*, p. A4.
- García Pérez, A. (2007b). Mensaje a la Nación en el día de la independencia. Lima.
- García Pérez, A. (2008). Mensaje a la Nación en el día de la independencia. Lima.
- García Pérez, A. (2009). Mensaje a la Nación en el día de la independencia. Lima.

- Gervasoni, C. (2010). A rentier theory of subnational regimes: fiscal federalism, democracy, and authoritarianism in the Argentine provinces. *World Politics*, 62(2), 302-340.
- Gil, V. (2009). *Aterrizaje minero: cultura, conflicto, negociaciones y lecciones para el desarrollo desde la minería en Ancash, Perú*. Lima: Instituto de Estudios Peruano.
- Gobierno Regional de Moquegua. (2008a). *Problemática limítrofe actual en el departamento de Moquegua*. Moquegua: Gobierno Regional de Moquegua.
- Gobierno Regional de Moquegua. (2008b). Remuneración de obreros contratados por inversion. Moquegua.
- Goderis, B., & Malone, S. (2008). *Natural resource booms and inequality: theory and evidence* The Centre for the Study of African Economies Working Paper Series Nº 291. Oxford: University of Oxford.
- Goldberg, E., Wibbels, E., & Mvukiyehe, E. (2008). Lessons from strange cases: democracy, development, and the resource curse in the U.S. States. *Comparative Political Studies*, 41(4/5), 477-514.
- Gonzales de Olarte, E. (2005). Crecimiento, desigualdad e ingobernabilidad en el Perú de los 2000. In V. Vich (Ed.), *El Estado está de vuelta: desigualdad, diversidad y democracia*. Lima: Instituto de Estudios Peruanos.
- Gouley, C., & Kuramoto, J. (2007). Conflictos mineros, interculturalidad y políticas públicas: el caso de las Bambas, provincias de Cotabambas y Grau, departamento de Apurímac. *Economía y Sociedad*, 65, 46-54.
- Graulau, J. (2008). 'Is mining good for development?': the intellectual history of an unsettled question. *Progress in Development Studies*, 8(2), 129-162.
- Grindle, M. S. (2006). Modernising town hall: capacity building with a political twist. *Public Administration and development*, 26(1), 55-59.
- Grindle, M. S. (2007). *Going local: decentralization, democratization, and the promise of good governance*. Princeton, N.J.; Woodstock: Princeton University Press.
- Grompone, R., & Glave, M. (2009). Building democracy with equality: the participatory experience in the rural province of Anta, Cusco, Peru. *IDS Bulletin*, 40(6), 22-30.
- Grupo Propuesta Ciudadana. (2008). *Vigilancia de las industrias extractivas: reporte nacional nº 7*. Lima: Grupo Propuesta Ciudadana.
- Guo, S., & Fraser, M. (2010). *Propensity score analysis: statistical methods and application*. Los Angeles: SAGE.
- Gylfason, T. (2001). Natural resources, education, and economic development. *European Economic Review*, 45(4-6), 847-859.
- Hamann, R. (2004). Corporate social responsibility, partnerships, and institutional change: the case of mining companies in South Africa. *Natural Resources Forum*, 28(4), 278-290.
- Hamann, R., & Paul, K. (2004). Corporate social responsibility in mining in Southern Africa: fair accountability or just greenwash? *Development*, 47(3), 85-92.

- Harding, C. (1975). Land reform and social conflict in Peru. In A. Lowenthal (Ed.), *The Peruvian experiment: continuity and change under military rule*. Princeton: Princeton University Press.
- Hausmann, R., & Rigobon, R. (2003). An alternative interpretation of the resource curse: theory and policy implications. In J. M. Davis, R. Ossowski & A. Fedelino (Eds.), *Fiscal policy formulation and implementation in oil-producing countries*. Washington: International Monetary Fund.
- Hilson, G. (2002). An overview of land use conflict in mining communities. *Land Use Policy*, 19, 65-73.
- Holden, W. N., & Jacobson, R. D. (2007). Mining amid armed conflict: nonferrous metals mining in the Philippines. *Canadian Geographer / Le Géographe canadien*, 51(4), 475-500.
- Houtzager, P. (2003). From polycentrism to the polity. In P. Houtzager & M. Moore (Eds.), *Changing paths: International development and the new politics of inclusion*. Ann Arbor: University of Michigan Press.
- Huber, L. (2008). *Romper la mano: una interpretación cultural de la corrupción*. Lima: Instituto de Estudios Peruanos.
- Humphreys, M. (2005). Natural resources, conflict, and conflict resolution: uncovering the mechanisms. *Journal of Conflict Resolution*, 49(4), 508-537.
- Humphreys, M., Sachs, J., & Stiglitz, J. E. (2007). *Escaping the resource curse*. New York: Columbia University Press.
- Hyndman, D. (1995). *Ancestral rainforest and the mountain of gold: indigenous peoples and mining in New Guinea*. Boulder: Westview Press.
- Hyndman, D. (2001). Academic responsibilities and representation of the OK Tedi crisis in postcolonial Papua New Guinea. *The Contemporary Pacific*, 13(1), 33-54.
- ICMM. (2006a). *The analytical framework - The challenge of mineral wealth: using resource endowments to foster sustainable development*. Retrieved March 11, 2009, from <http://www.icmm.com/page/1409/resource-endowment-initiative>
- ICMM. (2006b). *The prize - The challenge of mineral wealth: using resource endowments to foster sustainable development*. London: International Council on Mining & Metals.
- ICMM. (2006c). *Synthesis of four country case studies - The challenge of mineral wealth: using resource endowments to foster sustainable development*. London: International Council on Mining&Metals.
- ICMM. (2006d). *The way forward - The challenge of mineral wealth: using resource endowments to foster sustainable development*. Retrieved July 10, 2007, from <http://www.icmm.com/publications/1113WaysForward.pdf>
- ICMM. (2007). *Peru country case study. The challenge of mineral wealth: using resource endowments to foster sustainable development*. London: International Council on Mining&Metals.
- ICMM. (2009). *Human rights in the mining and metals industry: handling and resolving local level concerns and grievances*. London: International Council on Mining and Metals.

- ICMM. (2010a). *Mining: partnerships for development. Position statement*. London: International Council on Mining & Metals.
- ICMM. (2010b). *Resource endowment initiative*. Retrieved 2 June, 2010, from <http://www.icmm.com/resourceendowment>
- Idemudia, U. (2007). *Corporate partnership and community development in the Nigerian oil industry: strengths and limitations*. Geneva: UNRISD.
- IFC. (2000). *Investing in people: sustaining communities through improved business practice*. Washington DC: International Financial Corporation.
- IIED. (2002). *Breaking new ground: mining, minerals, and sustainable development*. London: Earthscan.
- IIED. (2003). *Finding common ground: indigenous peoples and their association with the mining sector*. London: IIED.
- INEI. (2008a). *Censos Nacionales 2007: XI de Población y VI de Vivienda*: Instituto Nacional de Estadística e Informática.
- INEI. (2008b). *Perú, compendio estadístico 2008*. Lima: Instituto Nacional de Estadística e Informática.
- INEI. (2009a). *Informe técnico: situación de la pobreza en el 2008*. Lima: Instituto Nacional de Estadística e Informática.
- INEI. (2009b). *Mapa de pobreza provincial y distrital 2007: el enfoque de la pobreza monetaria*. Lima: Instituto Nacional de Estadística e Informática.
- INEI. (2009c). *Perú, compendio estadístico 2009*. Lima: Instituto Nacional de Estadística e Informática.
- INEI. (2009d). *Producto bruto interno por departamentos 2001-2008*. Lima: Instituto Nacional de Estadística e Informática.
- INEI. (2009e). *Registro nacional de municipalidades 2008*. Retrieved 29 July, 2010, from <http://www1.inei.gob.pe/srienaho/renamu2008.asp>
- Inter-American Development Bank. (2003). *Private sector to play major role in Peruvian decentralization*. Retrieved 10 November, 2009, from <http://www.iadb.org/news/detail.cfm?language=EN&id=2116>
- Isham, J., Woolcock, M., Pritchett, L., & Busby, G. (2005). The varieties of resource experience: natural resource export structures and the political economy growth. *The World Bank economic review*, 19(2), 141-174.
- Karl, T. L. (1997). *The paradox of plenty: oil booms and petro-states*. Berkeley: University of California Press.
- Karl, T. L. (2007). *Resources and Rights*. Lima: GPC.
- Kay, C. b. (2001). Reflections on rural violence in Latin America. *Third World Quarterly*, 22(5), 741 - 775.
- Khodeli, I. (Ed.). (2009). *From curse to blessing? Using natural resources to fuel sustainable development*. Oxford: UNESCO.
- Kirsch, S. (2004). Changing views of place and time along the Ok Tedi. In J. Weiner & A. Rumsey (Eds.), *Mining and indigenous lifeworlds in Australia and Papua New Guinea*. Wantage: Sean Kingston Publishing.
- Klarén, P. F. (2000). *Society and nationhood in the Andes*. New York: Oxford University Press.

- Kolstad, I., & Wiig, A. (2009). Is transparency the key to reducing corruption in resource-rich countries? *World Development*, 37(3), 521-532.
- Krishna, A., Kristjanson, P., Kuan, J., Quilca, G., Radeny, M., & Sanchez-Urrelo, A. (2006). Fixing the hole in the bucket: household poverty dynamics in the Peruvian Andes. *Development and Change*, 37(5), 997-1021.
- Kruijt, D., & Vellinga, M. (1979). *Labor relations and multinational corporations: the Cerro the Pasco Cooperation in Perú*. Amsterdam: Van Gorcum and Comp.
- La Primera – Huaraz. (2008, 2 July). Nos quieren dejar si canon, p. 1.
- La Primera – Huaraz. (2009, 9 July). FEDIP– Cajay denuncia a alcalde por supuesta corrupción.
- La República. (2008, 30 August). Sólo gastaron 33% de los US\$ 3,500 mlls. recibidos. *La Republica*, p. 6.
- La República. (2010, 29 September). Incriminan a ex-gerente en atentado a Nolasco. *La República*, p. 10.
- Larson, A. M. (2004). Formal decentralisation and the imperative of decentralisation 'from below': a case study of natural resource management in Nicaragua. *The European Journal of Development Research*, 16(1), 55 - 70.
- Latin American Council of Social Sciences. (2009). *Observatorio Social de América Latina: cronologías*. Retrieved 30 October, 2009, from <http://www.clacso.org.ar/sitio/clacso/areas-de-trabajo/area-academica/osal/produccion-academica/cronologias>
- Latinobarómetro, C. (1995-2008). *Informe Latinobarómetro*. Santiago de Chile: Corporación Latinobarómetro.
- Lederman, D., & Maloney, W. F. (2006). Trade structure and growth. In D. Lederman & W. F. Maloney (Eds.), *Natural resources: neither curse nor destiny*. Stanford: Stanford University Press.
- Lessmann, C., & Markwardt, G. (2010). One size fits all? Decentralization, corruption, and the monitoring of bureaucrats. *World Development*, 38(4), 631-646.
- Lingan, J. (2008). El caso de Cajamarca. In M. Scurrah (Ed.), *Defendiendo derechos y promoviendo cambios: el Estado, las empresas extractivas y las comunidades locales en el Perú*. Lima: Instituto de Estudios Peruanos.
- Long, N., & Roberts, B. (1984). *Miners, peasants and entrepreneurs: regional development in the central highlands of Peru*. Cambridge: Cambridge University Press.
- Lowenthal, A. (1975). *The Peruvian experiment: continuity and change under military rule*. Princeton: Princeton University Press.
- MacIntyre, M., & Foale, S. (2002). *Politicised ecology: local responses to mining in Papua New Guinea*. Canberra: The Australian National University.
- Mackay, F. (2004). Indigenous peoples' rights to free, prior and informed consent and the World Bank's Extractive Industries Review. *Sustainable Development Law & Policy*, 4(2), 43-65.
- Macroconsult. (2008). *Impacto económico de la actividad minera en el Perú*. Lima: Macroconsult.
- Mallon, F. (1995). *Peasant and nation: the making of postcolonial Mexico and Peru*. Berkeley: University of California Press.

- Mallon, F. (1998). Chronicle of a path foretold? Velasco's revolution, vanguardia revolucionaria, and "shining omens" in the indigenous communities of Andahuaylas. In S. Stern (Ed.), *Shining and other paths: war and society in Peru, 1980-1995*. Durham: Duke University Press.
- Manrique, N. (2006). Democracia y nación: la promesa pendiente. In U. N. D. Program. (Ed.), *La democracia en Perú (vol. 2): proceso histórico y agenda pendiente*. Lima: UNDP.
- Mariategui, J. C. (2007). *7 ensayos de interpretación de la realidad peruana*. Caracas: Biblioteca Ayacucho.
- Martinez-Alier, J. (2002). *The environmentalism of the poor*. Cheltenham: Edward Elgar Publishing Limited.
- Mate, K. (2002). *Communities, civil society organisations and the management of the mineral wealth*. London: IIED.
- Matos Mar, J. (1984). *Desborde popular y crisis del Estado: el nuevo rostro del Perú en la década de 1980*. Lima: Instituto de Estudios Peruanos.
- McAdam, D., Tarrow, S., & Tilly, C. (2001). *Dynamics of contention*. Cambridge: Cambridge University Press.
- McMahon, G., & Remy, F. (2001). *Large mines and the community: socioeconomic and environmental effects in Latin America, Canada and Spain*. Washington: The World Bank.
- McNulty, S. (2006). *Empowering civil society? Decentralizing the state and increasing local participation in Peru* (Vol. Phd). Washington: The George Washington University.
- McPhail, K. (2008). *Sustainable development in the mining and minerals sector: the case for partnership at local, national and global levels*. London: ICMM.
- Mehlum, H., Moene, K., & Torvik, R. (2006). Institutions and the resource curse. *The Economic Journal*(116), 1-20.
- MIM. (2010). *Mejorando la Inversión Municipal*. Retrieved 3 July, 2010, from <http://www.mim.org.pe/>
- Ministerio de Economía y Finanzas - Perú. (2009). *Estadísticas económicas*. Retrieved 5 November, 2009, from http://www.mef.gob.pe/OFINE/estadistica_economica.php
- Ministerio de Economía y Finanzas - Perú. (2010). *Transparencia económica*. Retrieved March 3, 2010, from <http://transparencia-economica.mef.gob.pe/>
- Ministerio de Economía y Finanzas. (2009a). *Estadísticas económicas*. Retrieved 5 November, 2009, from http://www.mef.gob.pe/OFINE/estadistica_economica.php
- Ministerio de Economía y Finanzas. (2009b). *Resultados de la evaluación de las declaratorias de viabilidad otorgadas por los órganos competentes del gobierno nacional, gobiernos regionales y gobiernos locales en el año 2007, en el marco del Sistema Nacional de Inversión Pública*. Lima.
- Ministerio de Economía y Finanzas. (2010). *Transparencia económica*. Retrieved March 3, 2010, from <http://transparencia-economica.mef.gob.pe/>
- Ministerio de Energía y Minas. (2010a). *Cartera de proyectos mineros*. Retrieved March 20, 2010, from

<http://www.minem.gob.pe/minem/archivos/file/Mineria/INVERSION/CARTER A.pdf>

- Ministerio de Energía y Minas. (2010b). *Datamart of minería*. Retrieved June 28, 2010, from http://intranet2.minem.gob.pe/datamart/dac_publico/
- Ministerio de Energía y Minas. (2010c). *Informes estadísticos*. Retrieved 23 August, 2010, from <http://www.minem.gob.pe/minem/archivos/file/Mineria/PUBLICACIONES/ANUARIOS/2008/02%20ANUARIO.pdf>
- Monge, C. (2006). Decentralisation: an opportunity for democratic governance. In J. Crabtree (Ed.), *Making institutions work in Peru*. London: Institute for the study of the Americas.
- Monterrico Metals. (2009). *The Rio Blanco project*. Retrieved 7 of November, 2009, from <http://www.monterrico.co.uk/s/RioBlanco.asp?ReportID=144255>
- Moody, R. (2007). *Rocks and hard places: the globalization of mining*. London: Zed Books.
- Moore, M. (2004). Revenues, State Formation, and the Quality of Governance in Developing Countries. *International Political Science Review*, 25(3), 297-319.
- Morgandi, M. (2008). *Extractive industries revenues distribution at the sub-national level: the experience in seven resource-rich countries*. New York: Revenue Watch Institute.
- Morón, E., & Sanborn, C. (2006). *The pitfalls of policymaking in Peru: actors, institutions and rules of the game*. Washington: Inter-American Development Bank.
- Moss, T., & Young, L. (2009). *Saving Ghana from its oil: the case for direct cash distribution*. Working Paper 186. Washington: Center for Global Development.
- Muñoz, I. (2006). *Collective action and decentralisation*. Paper presented at the CRISE Latin American Workshop, Santa Cruz.
- Murakami, Y. (2007). *Perú en la era del chino: la política no institutcionalizada y el pueblo en busca de un salvador*. Lima: Instituto de Estudios Peruanos.
- Murshed, S. M., & Tadjoeddin, Z. (2009). Revisiting the greed and grievance explanations for violent internal conflict. *Journal of International Development*, 21(1), 87-111.
- Nylandsted, M., Yankson, P., & Fold, N. (2009). Does FDI create linkages in mining? The case of gold mining in Ghana. In E. Rugraff, D. Sánchez-Ancochea & A. Sumner (Eds.), *Transnational corporations and development policy: critical perspectives*. Basingstoke: Palgrave Macmillan.
- O'Brien, P. (2009, 9 November). Los petroaudios y la cultura de negocios. *Semana Económica*.
- ODECOFROC. (2009). *Perú, crónica de un engaño: los intentos de enajenación del territorio fronterizo Awajún en la Cordillera del Cóndor a favor de la minería*. Lima: IWGIA.
- Ongba, L. D. (2009). On the duration of political power in africa: the role of oil rents. *Comparative Political Studies*, 42(3), 416-436.

- ONPE. (2007). *Resultados elecciones municipales 2006*. Retrieved 24 July, 2010, from <http://www.web.onpe.gob.pe/modElecciones/elecciones/resultadoserm2006/index.onpe>
- ONPE. (2009). *Consulta popular de revocatoria del mandato de autoridades municipales 2008*. Retrieved 8 June, 2010, from <http://www.web.onpe.gob.pe/modElecciones/elecciones/revocatoriapr2008/index.php>
- Palacín, M. (2008). *Respuesta comunitaria a la invasión minera y la crisis política: CONACAMI para el mundo*. Lima: CONACAMI.
- Panfichi, A. (2009). *Conflictos sociales en el Perú 2004-2009: causas, características y posibilidades*. Lima Pontificia Universidad Católica del Perú.
- Panfichi, A. (2010). *La representación contenciosa: fragmentación y conflicto social bajo el segundo gobierno de Alan García*. Lima: Universidad Católica del Perú.
- Paredes, M. (2006). Discurso indígena y conflicto minero en el Perú. In J. Iguñiz, J. Escobal & C. I. Degregori (Eds.), *Perú, el problema agrario en debate. SEPIA XI*. Lima: Seminario Permanente de Investigación Agrícola.
- Paredes, M. (2008). El caso de Tambogrande. In M. Scurrah (Ed.), *Defendiendo derechos y promoviendo cambios: el Estado, las empresas extractivas y las comunidades locales en el Perú*. Lima: Instituto de Estudios Peruanos.
- Pease, H. (2006). *Por los pasos perdidos: el parlamento peruano entre el 2000 y el 2006*. Lima: Fondo Editorial del Congreso del Perú.
- Pegg, S. (2006a). Can policy intervention beat the resource curse? Evidence from the Chad-Cameroon pipeline project. *African Affairs*, 105(418), 1-25.
- Pegg, S. (2006b). Mining and poverty reduction: Transforming rhetoric into reality. *Journal of Cleaner Production*, 14(3-4), 376-387.
- Peltier-Thiberge, N. (2006). Rural infrastructure. In M. Giugale, V. Fretes-Cibils & J. Newman (Eds.), *An opportunity for a different Peru: prosperous, equitable, and governable*. Washington: The World Bank.
- Peru21. (2009, 28 November). Encarcelan a un alcalde de Ancash por el mal uso del canon.
- Polastri, R., & Rojas, F. (2006). Decentralisation. In M. Giugale, V. Fretes-Cibils & J. Newman (Eds.), *An opportunity for a different Peru: prosperous, equitable, and governable*. Washington: The Word Bank.
- Primera Página. (2009). *Gerente de San Marcos fue internado en el penal San Jorge*. Retrieved 23 July, 2010, from <http://www.primerapaginaperu.com/article/actualidad/poli/2721/>
- Programa Canon. (2010). *Programa Canon*. Retrieved 10 September, 2010, from <http://www.programacanon.org.pe/>
- Ramos, G. (2005). *El sueño del casco blanco*. Lima: San Marcos.
- Raw Material Group. (2010). *Annual survey of global mining investment*. Retrieved March 19, 2010, from <http://www.womp-int.com/story/2010vol01/story024.htm>

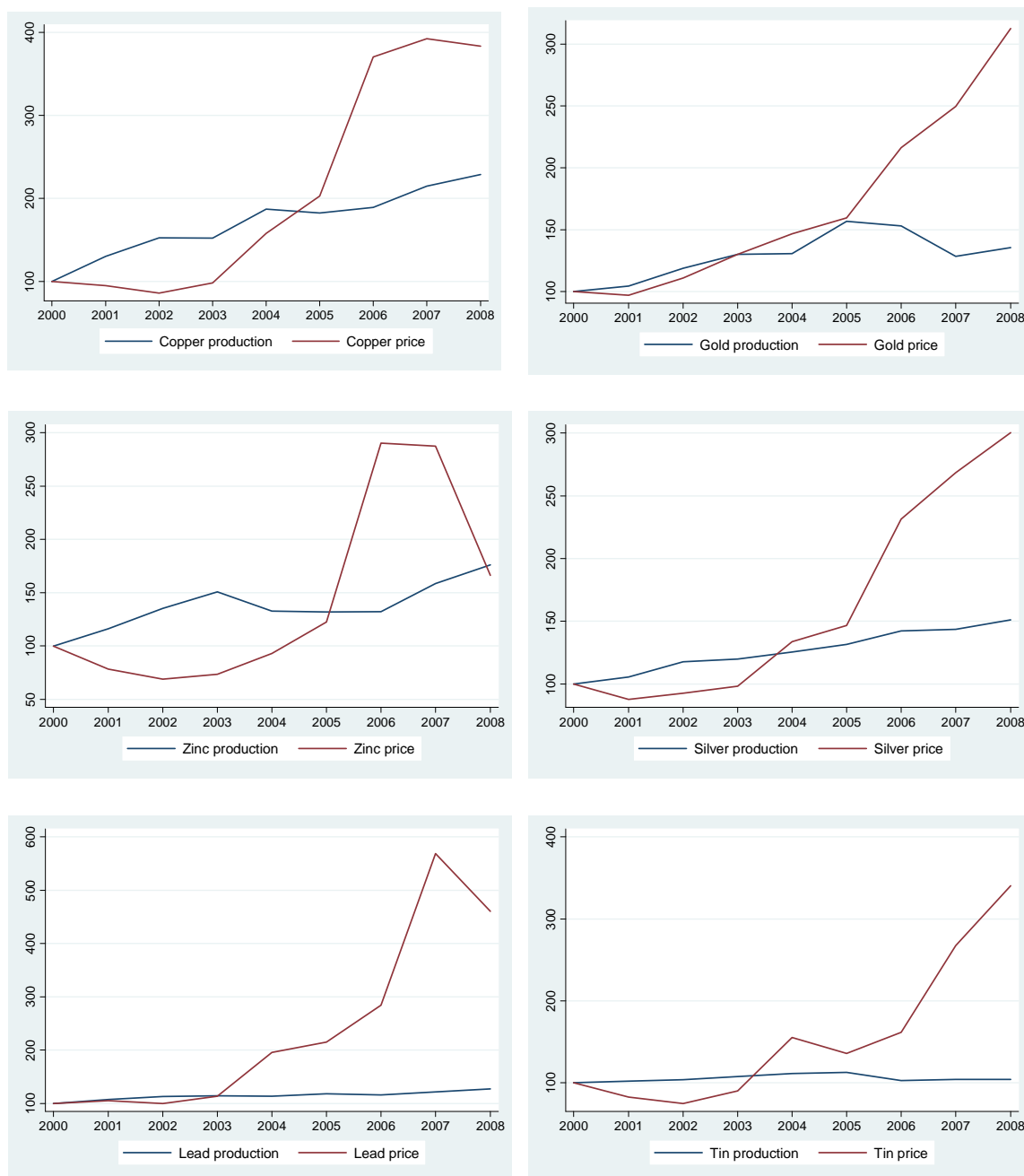
- Remy, M. I. (2005). *Los múltiples campos de la participación ciudadana en el Perú: Un reconocimiento del terreno y algunas reflexiones*. Lima: Instituto de Estudios Peruanos.
- Revesz, B. (2009a). Descentralización, la reforma inconclusa. In Desco (Ed.), *Perú hoy: del hortelano su perro, sin espacio ni tiempo histórico*. Lima: Desco.
- Revesz, B. (2009b). Tambogrande: de la defensa del agro a la defensa del derecho a decidir. In J. Echave de, A. Diez, L. Huber, B. Revesz, X. Ricard & M. Tanaka (Eds.), *Minería y conflicto social*. Lima: Instituto de Estudios Peruanos.
- Revesz, B., & Diez, A. (2006). El triángulo sin cúpula, o los actores desregulados en los conflictos mineros. In E. Toche (Ed.), *Perú hoy: nuevos rostros en la escena nacional*. Lima: Desco.
- Ribot, J. C. (2004). *Waiting for democracy: The politics of choice in natural resource decentralization*. Washington: World Resources Institute.
- Rojas, L., & Salas, M. E. (2010, 21 April). Suspendieron proyecto minero Tia María. *La República*, p. 4.
- Rosenbaum, P., & Rubin, D. (1983). The central role of the propensity score in observational studies of causal effects. *Biometrika*, 70(1), 41-55.
- Ross, M. (1999). The political economy of the resource curse. *World Politics*, 51(2), 297-322.
- Ross, M. (2001). Does oil hinder democracy? *World Politics*, 53(3), 325-361.
- Ross, M. (2004a). How do natural resources influence civil war? Evidence from thirteen cases. *International Organization*, 58(01), 35-67.
- Ross, M. (2004b). *Mineral wealth and equitable development. Background report for the World Development Report 2006*. Washington: The World Bank.
- Ross, M. (2007). How can mineral rich states reduce inequality? In J. Sachs, J. E. Stiglitz & M. Humphreys (Eds.), *Escaping the resource curse*. New York: Columbia University Press.
- Rosser, A. (2006a). Escaping the Resource Curse. *New Political Economy*, 11(4), 557 - 570.
- Rosser, A. (2006b). *The political economy of the resource curse: a literature survey*. Brighton: IDS.
- Sachs, J., & Warner, A. (1997). *Natural resource abundance and economic growth*. Cambridge: Harvard Institute for International Development.
- Sala-i-Martin, X., & Subramanian, A. (2003). *Addressing the natural resource curse: an illustration from Nigeria*. Washington: International Monetary Fund.
- Salas Carreño, G. (2008). *Dinámica social y minería: familias pastoras de puna y la presencia del proyecto Antamina (1997-2002)*. Lima: Instituto de Estudios Peruanos.
- Sanborn, C., Portocarrero, F., & Camacho, L. A. (2007). Aprendiendo sobre la marcha: la compañía minera Antamina. In F. Portocarrero, C. Sanborn & L. A. Camacho (Eds.), *Moviendo montañas: empresas, comunidades y ONG en las industrias extractivas*. Lima: Universidad del Pacífico.
- Sandbu, M. E. (2006). Natural wealth accounts: A proposal for alleviating the natural resource curse. *World Development*, 34(7), 1153-1170.

- Santillana, M. (2006). *La importancia de la actividad minera en la economía sociedad peruana*. Santiago de Chile: ECLAC.
- Scorza, M. (1970). *Redoble por Rancas*. Lima: Peisa.
- Schady, N. (1999). *Seeking votes: the political economy of expenditures by the Peruvian social funds (FONCODES), 1991-1995*. Washington: The World Bank.
- Schuldt, J. (2004). *Bonanza macroeconómica y malestar microeconómico: apuntes para el estudio del caso peruano, 1988-2004*. Lima: Universidad del Pacífico.
- Segal, P. (2009). *Resource rents, redistribution, and halving global poverty: the resource dividend*. Oxford: Oxford Institute for Energy Studies.
- Shack, N. (2006). *Presupuestar en Perú*. Santiago de Chile: ECLAC.
- Shafer, D. M. (1994). *Winners and losers: how sectors shape the developmental prospects of state*. Ithaca: Cornell University Press.
- Sheahan, J. (1999). *Searching for a better society : the Peruvian economy from 1950*. University Park, Penn.: Pennsylvania State University Press.
- Snyder, R. (2001). Scaling down: the subnational comparative method. *Studies in Comparative International Development*, 36(1), 93-110.
- Stepan, A. (1978). *The state and society: Peru in comparative perspective*. Princeton: Princeton University Press.
- Stevens, P., & Dietsche, E. (2008). Resource curse: an analysis of causes, experiences and possible ways forward. *Energy Policy*, 36(1), 56-65.
- Stijns, J.-P. (2006). Natural resource abundance and human capital accumulation. *World Development*, 34(6), 1060-1083.
- Sullivan, D. E., Sznopce, J. L., & Wagner, L. A. (2001). *20th Century U.S. mineral prices decline in constant dollars*. Open File Report 00-389. Washington: U.S. Geological Survey.
- Szablowski, D. (2007). *Transnational law and local struggles: mining communities and the World Bank*. Portland: Hart Publishing.
- Székely, M., & Montes, A. (2006). Poverty and inequality. In V. Bulmer-Thomas, J. Coastworth & R. Cortés Conde (Eds.), *The Cambridge economic history of Latin America. Volume II: the long twentieth century*. Cambridge: Cambridge University Press.
- Tanaka, M. (2005). *Democracia sin partidos: Perú, 2000-2005*. Lima: Instituto de Estudios Peruanos.
- Tanaka, M., & Meléndez, C. (2009). Yanacocha y los reiterados desencuentros: gran afectación, débiles capacidades de acción colectiva. In J. De Echave, A. Diez , L. Huber, B. Revesz, X. Ricard & M. Tanaka (Eds.), *Minería y conflicto Social*. Lima: Instituto de Estudios Peruanos.
- Tarrow, S. (1998). *Power in movement : social movements and contentious politics* (2nd ed. ed.). Cambridge: Cambridge University Press.
- The Economist. (2008, 6 December). Peru: the politics of non-stop protest, p. 51.
- The Economist. (2009, 2 May). Pain but no panic, pp. 49-50.
- The Economist. (2010a, 19 August). BHP Billiton: making the earth move, pp. 50-52.

- The Economist. (2010b, 5 June). Digging in a minefield, p. 77.
- Thorp, R., & Bertram, G. (1978). *Peru 1890-1977: growth and policy in an open economy*. London: The MacMillan Press.
- Ugarte, M. (2006). *Apuntes para apoyar la discusión del proceso de descentralización*. Lima: Fundación Konrad Adenauer.
- UNCTAD. (2007). *World investment report 2007: transnational corporations, extractive industries and development*. Geneva: UNCTAD.
- UNDP. (2006). *Informe sobre desarrollo humano Perú 2006: hacia una descentralización con ciudadanía*. Lima: UNDP.
- UNDP. (2010). *Informe sobre desarrollo humano Perú 2009: por una densidad del estado al servicio de la gente*. Lima: UNDP.
- Van der Ploeg, F. (2008). *Challenges and opportunities for resource rich economies*. OxCarre Research Paper N° 2008-05. Oxford: University of Oxford.
- Watts, M. (2004). Resource curse? governmentality, oil and power in the Niger Delta, Nigeria. *Geopolitics*, 9(1), 50 - 80.
- Weber-Fahr, M. (2002). *Treasure or trouble? Mining in developing countries*. Washington D.C.: World Bank and International Finance Corporation.
- Weinstein, J. M. (2007). *Inside rebellion: the politics of insurgent violence*. Cambridge: Cambridge University Press.
- Weyland, K. (2009). The rise of Latin America's two lefts: insights from the rentier state theory. *Comparative Politics*, 41(2), 145-164.
- Wise, H., & Shtylla, S. (2007). *The role of the extractive sector in expanding economic opportunity*. Cambridge: John F. Kennedy School of Government / Harvard University.
- Wooldridge, J. (2002). *Econometric analysis of cross section and panel data*. Cambridge, Massachusetts: MIT Press.
- World Bank. (2003). *Striking a better balance - the World Bank Group and extractive industries: the final report of the extractive industries review* (Vol. 2007). Washington: The World Bank.
- World Bank. (2009). *Governance matters 2009: worldwide governance indicators 1996-2008*. Retrieved 7 August, 2009, from http://info.worldbank.org/governance/wgi/sc_chart.asp
- World Bank. (2010). *World development indicators*. Retrieved 20 March, 2010, from <http://publications.worldbank.org/WDI/>
- World Values Survey. (2009). *World values survey*. Retrieved 28 April, 2009, from <http://www.worldvaluessurvey.org/>
- Yakovleva, N. (2005). *Corporate social responsibility in the mining industries*. Aldershot: Ashgate Publishing.
- Yashar, D. J. (2005). *Contesting citizenship in Latin America: the rise of indigenous movements and the postliberal challenge*. Cambridge: Cambridge University Press.
- Zas Friz Burga, J. (2005). El actual proceso peruano de descentralización: balance y perspectivas de su diseño normativo e institucional. In W. Alejos Calderón

- & J. Zas Friz Burga (Eds.), *Concertando la descentralización: balance del diseño normativo*. Lima: Fondo Editorial del Congreso del Perú.
- Zavalla, C. (2004). Canon minero y distribución de ingresos en el Perú. In Desco (Ed.), *Perú hoy: los mil días de Toledo* (pp. 151-192). Lima: Desco.
- Zegarra, E., Orihuela, J. C., & Paredes, M. (2007). *Minería y economía de los hogares de la sierra peruana: impactos y espacios de conflicto*. Lima: GRADE.

APPENDIX I: Change in production and international prices for principal Peruvian minerals (2000–2008), taking 2000 as the base year



Source: Ministerio de Energía y Minas; adaptation: the author.

APPENDIX II: Poverty levels and income per capita in different geographical regions of Peru

Table A II.1 Percentage of the population below the poverty line in different geographical regions of Peru, 2001–2008

Area	2001	2002	2003	2004	2005	2006	2007	2008
Whole country	54.3	53.8	52.2	51.6	48.7	44.5	39.3	36.2
Lima	31.8	34.2	33.7	36.6	32.6	24.2	18.5	17.7
Rest of the country	63.3	61.8	59.6	57.7	55.2	52.8	47.8	n/a
Urban	42.0	41.0	39.5	40.3	36.8	31.2	25.7	23.5
Rural	77.1	77.7	75.7	72.5	70.9	69.3	64.6	59.8
Coastal region	39.0	39.8	37.8	38.4	34.2	28.7	22.6	21.3
Urban*	n/a	n/a	n/a	37.1	32.2	29.9	25.1	23.4
Rural	n/a	n/a	n/a	51.2	50.0	49.0	38.1	34.8
Andean sierra	70.6	70.0	68.6	67.7	65.6	63.4	60.1	56.2
Urban	n/a	n/a	n/a	44.8	44.4	40.2	36.3	33.5
Rural	n/a	n/a	n/a	75.8	77.3	76.5	73.3	68.8
Amazon rainforest	69.8	64.9	64.1	59.5	60.3	56.6	48.4	40.9
Urban	n/a	n/a	n/a	50.4	53.9	49.9	40.3	31.3
Rural	n/a	n/a	n/a	63.8	65.6	62.3	55.3	49.1

Notes: * excluding Lima.

Source: INEI.

Table A II.2 Per capita average monthly incomes in different geographical regions of Peru, 2004–2008 (Peruvian Nuevos Soles at 2001 rates)

Area	2004	2006	2008	Variation 2008/2004
Whole country	371.5	396.7	452.2	80.7
Lima	604.3	640.9	703.0	98.7
Urban	479.3	513.8	580.1	100.8
Rural	171.9	178.9	214.7	42.8
Coastal region				
Urban*	403.1	430.5	481.9	78.8
Rural	266.3	269.5	334.3	68
Andean sierra				
Urban	387.3	427.6	504.9	117.6
Rural	155.9	156.8	185.2	29.3
Amazon rainforest				
Urban	298.3	328.0	430.5	132.2
Rural	155.9	179.9	223.8	67.9

Source: INEI.

APPENDIX III: Summary of principal mining companies in the field research regions

REGION	Mine	Owners	Commencement year*	Type	Minerals	Size	Expected lifespan**	Employment***	
								Direct	Services
ANCASH	Antamina	BHP Billiton: 33.7% Xstrata: 33.7% Teckcominco: 22.5% Mitsubishi: 10%	2001	Open pit	Cu, Zn	Very large	Over 25 years	1,700	2,500
	Pierina	Barrick	1998	Open pit	Au	Medium	Extended to 2013	440	450
MOQUEGUA	Cuajone	Grupo Mexico	1976	Open pit	Cu	Large	Over 20 years	1,500	500
	Quellaveco	Anglo American	Expected 2012	Open pit	Cu, Mo	Large	Over 30 years	1,500	
PASCO	Cerro de Pasco	Volcan	1903	Underground Open pit (1956)	Zn, Pb, Ag	Large	Long term****	1,230	1,990
	Brocal	El Brocal	1956	Open pit (1993)	Zn, Pb, Ag	Medium	Long term	275	600
	Huarón	Pan American Silver	1912	Underground	Ag, Zn	Medium	15 years	812	570
	Atacocha	Atacocha	1937	Underground	Zn, Ag, Pb, Cu	Medium	8–10 years	390	---
	Milpo	Milpo	1949	Underground	Zn, Pb, Cu	Medium	8–10 years	300	600

Notes: * in some locations, mining activities commenced before the involvement of the present company; ** according to direct company information or estimated through reserves and production; *** according to company information; **** dependent on current negotiation with population and authorities.

Sources: company annual reports and personal interviews with employees.

APPENDIX IV: Main features of municipalities included in the field study

Region	Municipality	Mine	Height (MSL)	Population 2007	Population growth 1993–2007	Canon transfers per capita 2005–2008 in PEN	Indigenous population 2007	Rural population 2007	Poverty level 2007
ANCASH	Jangas	Pierina	2,809	4,506	1,017	1,780	71.9%	59.9%	54.6%
	Huari	Antamina	3,110	10,024	1,008	2,638	66.4%	50.4%	56.5%
	Cajay	Antamina	3,175	3,107	0.983	3,896	94.2%	78.9%	79.2%
	Chavin de Huantar	Antamina	3,141	9,355	1,001	3,240	83.3%	76.8%	79.1%
	Huachis	Antamina	3,243	3,868	0,992	4,012	93.9%	66.0%	80.5%
	Ponto	Antamina	3,115	3,574	0,996	3,718	93.9%	77.9%	80.3%
	San Marcos	Antamina	2,956	14,006	1,013	7,663	72.7%	72.5%	64.5%
MOQUEGUA	Moquegua	Cuajone	1,417	50,424	1,025	1,847	17.0%	5.8%	22.1%
	Carumas	Cuajone	3,043	4,914	1,023	4,264	33.9%	42.5%	49.7%
	Samegua	Cuajone	1,558	6,647	1,004	1,699	16.3%	10.1%	22.7%
	San Cristobal	Cuajone	3,458	3,590	1,019	3,788	53.1%	16.7%	54.8%
	Torata	Cuajone	2,195	6,725	0,989	8,779	16.7%	49.5%	21.1%
PASCO	Huachon	---	3,407	4,825	1,014	1,209	7.1%	40.0%	74.1%
	Huayllay	Huarón	4,348	11,188	1,021	1,416	5.9%	32.7%	56.8%
	Ninacaca	---	4,141	4,024	0,998	1,157	11.7%	46.8%	74.2%
	San Fco.de Asis Yarusyakan	Atacocha & Milpo	3,814	1,1812	0,996	1,145	3.5%	63.7%	84.2%
	Simon Bolivar	Cerro de Pasco	4,191	1,4416	0,995	1,085	3.9%	11.2%	44.5%
	Tinyahuarco	Brocal	4,270	6,282	1,016	1,345	2.8%	3.1%	47.3%

APPENDIX V: Criteria for the definition of categories in the three different classifications of conflict

Category	Description of relevant features
Classification 1: Relation to mining (extractive industries)	
1. Mining	Involves claims against mining companies; the regulatory or legislative power of the state regarding extractive industries; the distribution of mining revenues; or the control of natural resources crucial to the industry.
2. Other	Remaining conflicts.
Classification 2: Actors	
1. Indigenous groups and rural population	Includes indigenous and peasant communities and their organisations.
2. Urban population	Citizens living in urban areas acting in their capacity as inhabitants of such areas, which frequently include small urban centres that are the principal towns of rural districts.
3. Local and regional political authorities	Elected local and regional authorities who promote and lead social mobilisation.
4. Trade unions and workers' organisations	Workers acting in defence of their rights or interests.
5. Business associations	Informal groups and formal associations of small entrepreneurs acting in defence of their interests.
6. Students	University students.
7. Other	Remaining conflicts.
Classification 3: Motives	
1. National legislation or state policy	Conflicts with national legislation or state policy.
2. Sub-national authorities behaviour	Conflicts with local or regional authorities.
3. Behaviour of companies	Conflicts that target the behaviour of companies. Includes demands with regard to social expenditure and/or claims for financial compensation.
4. Environment	Conflicts aimed at halting environmental degradation (codified in the previous category if there is a clash over this kind of dispute that ends in agreement on social or financial compensation).
5. Labour issues	Conflicts between employers and employees.
6. Delimitation of territories	Conflicts in which some actors claim their jurisdiction over disputed territory or riparian rights.
7. Other	Remaining conflicts.

APPENDIX VI: Summary of variables used in the regression analysis of conflicts

Variable	Variable type	Description	Source	Obs.	Mean	Std. d.	Min.	Max.
1. Log of <i>canon minero</i> per capita	Scale	Annual data for per capita transfers of <i>canon minero</i> to regional and local governments of the region.	MEF	96	1.357	1.134	0	3.557
2. Territory under mining concession	Scale	Annual data for the percentage of the area of the region for which companies hold mining rights.	MEM	96	16.3	11.8	0.07	50.9
3. Log of per capita investment in mining activities	Scale	Annual data for the investment of mining companies by region.	MEM	96	1.295	0.869	0	2.919
4. Percentage of poverty	Scale	Annual index of population below the poverty line.	NICS	96	47.7	20.7	15.1	90.3
5. Mining as a percentage of GDP (constant prices)	Scale	Annual mining production as a percentage of total regional GDP calculated at constant 1994 prices; represents material production.	NICS	96	12.4	13.8	0	56.2
6. Indigenous population above 20%	Scale transformed to dummy	Percentage of the population affirming that in 2007 Spanish was not their mother tongue.	National Census 2007	96	22.1	23.1	0.4	71.0
7. Migration to the region in the last five years above 12%	Scale transformed to dummy	Percentage of the population affirming that in 2007 it had lived in the same region for at least five years.	National Census 2007	96	11.3	4.7	4.5	23.1

8.	Percentage of workforce in agriculture greater than 60%	Scale transformed to dummy	Percentage of the population affirming that in 2007 agriculture was their primary occupation.	National Census 2007	96	34.6	16.6	3.8	64.8
9.	Percentage of workforce in mining greater than 3%	Scale transformed to dummy	Percentage of the population affirming that in 2007 mining was the primary occupation.	National Census 2007	96	2.2	2.6	0	10.4
10.	Electoral participation greater than 85%	Scale transformed to dummy	Percentage of electorate voting in regional elections.	ONPE	96	85.6	3.8	75.0	91.2
11.	Radical vote greater than 50%	Scale transformed to dummy	Percentage of the electorate supporting the radical candidate in the first round of the 2006 national elections.	ONPE	96	38.2	13.2	15.9	62.7
12.	Percentage of the vote captured by the winner in regional elections	Scale	Percentage of total vote cast captured by the winning party in regional elections in 2002 and 2006.	ONPE	96	27.5	6.8	15.6	50.9

APPENDIX VII: Quantitative analysis of the impact of mining on economic and welfare indicators in Peruvian regions

In this appendix, I present how far the amount of per capita canon transfers and other two mining-related variables that control for the weight of mining in the regional economy and the economic importance of the variation in mining production correlate with variations in economic growth; poverty reduction; changes in the coverage of drinking water and sanitation facilities; and school attendance at two different ages, across Peruvian regions in 2002–2008. A brief description of these dependent variables follows:

- (i) The annual rate of GDP growth at regional level excluding mining activities. This indicator is a proxy for the dynamism of economic sectors other than mining. I used the sectorally disaggregated data of regional GDP at constant prices of 1994 provided by the National Institute of Computing and Statistics (NICS) ²³⁴ to make the calculations.
- (ii) The annual variation in poverty measured as a percentage of the regional population below the poverty line. ²³⁵
- (iii) The annual variation in the percentage of the population with access to drinking water according to the National Household Survey. ²³⁶
- (iv) The annual variation in the percentage of the population with sanitation facilities at home, according to the NHS.
- (v) The annual variation in the school attendance rate of children between 3 and 5 years old in relation to the total population of that age. Data from the NHS.
- (vi) The annual variation in the school attendance rate of children between 12 and 16 years old in relation to the total population of that age. Data from the NHS.

The three independent mining-related variables that I tested are as follow:

- (i) Mining as percentage of total regional GDP at constant 1994 prices is a proxy for the importance of mining in relation to the total regional economy. It is a broad indicator that helps to assess the general effect of mining activity.

²³⁴ The NICS used the value-added approach to calculate regional GDP by sectors.

²³⁵ The poverty line is defined in terms of income according to a region-specific variable benchmark. In Peru, since 1995, the NICS has conducted household surveys that provide very detailed data on a wide range of issues. In 2003 a change in the methodology made that the annual compilation of this data meant there was statistical inference with validity at regional level.

²³⁶ This indicator comprises people with drinking water at home and those who access some form of collective service.

- (ii) Index of annual variation of mining GDP. I built this index by multiplying the annual variation of mining GDP at constant prices of 1994 by the rate of mining in relation to the total regional GDP in the previous year. This index captures the economic importance of the variation in mining activities. It helps to test the existence of spillover effects. If mining has the capacity to generate positive or negative spillover effects on the rest of the regional economy, this variable should explain variations in the rates of economic growth and, probably, on welfare indicators across regions.
- (iii) The logarithm of annual per capita *canon minero* transfers at current value going to the regional government and municipalities of each region is a proxy for the implementation of the NEIS.

The first two help to test the direct influence of mining activities on economic and welfare indicators, while the third is a proxy for the implementation of the NEIS.

Additionally, in the analyses of each of the six dependent variables, I used different control variables. I present these variables in the next sections of this appendix, while appendix VIII summarises all the variables used in the analyses.

I use Random Effects (RE) panel regression specifications as the best possible way of dealing with the problems of the serial correlation and heteroskedasticity of the panel. I use the XTREG command in STATA with the option 'r' to correct these problems. I ruled out the use of the more conventional Panel Corrected Standard Errors (PCSE) models because the number of regions in the panel is larger than the number of years (see discussion in section 5.3 of the main text for a more complete explanation).

To ensure the robustness of the estimates, I also calculated an alternative specification for the models by running pooled OLS regressions with dummies to control for year effects. I assumed that serial correlation tended to cause less severe distortions in the case of panels with short temporal series (Wooldridge, 2002:276). The estimate for robust standards errors corrects for the problem of heteroskedasticity. This new specification did not change either the sign or the statistical significance of the estimates.

In the following sections, I present the analysis of each of the dependent variables, introducing the different control variables I used in each case, and briefly discuss the results.

A.VII.1 Testing the influence of mining on regional economic growth (2002–2008)

I took the annual rate of GDP growth – excluding mining activities – at regional level as the dependent variable to determine the influence of mining on economic growth. This indicator is thus a proxy for the dynamism of economic sectors other than mining. I used sectorally disaggregated regional GDP data at constant 1994 prices provided by the National Institute of Computing and Statistics (NICS) to calculate it.²³⁷ From 2002 to 2008, the year-by-year average growth rate for the 24 regions of the panel was 6.1 per cent, with a minimum value of -4.6 per cent for Lambayeque (2004), and a maximum value of 20.9 per cent for Ica (2008).²³⁸

I introduced into the model the three mining-related explanatory variables that I aim to test. Additionally, I controlled for the six following variables that might also influence the rate of economic growth.²³⁹

- (i) The percentage of the regional population below the poverty line in the previous year.
- (ii) Government services as a percentage of total regional GDP at constant 1994 prices.
- (iii) Manufacturing as a percentage of total regional GDP at constant 1994 prices.
- (iv) Trade as a percentage of total regional GDP at constant 1994 prices.
- (v) Agriculture as a percentage of total regional GDP at constant 1994 prices.
- (vi) Construction as a percentage of total regional GDP at constant 1994 prices.

To check the robustness of the estimates, I used year dummies to control for year-specific factors that could affect economic growth rates across the whole country;

²³⁷ The INEI employed a value added technique to calculate regional GDP by sector.

²³⁸ The extremely high level for Ica in 2008 is due to massive investment in the reconstruction of the region after an earthquake in August 2007.

²³⁹ See the end of this appendix for a complete description of all the dependent and independent variables used in the analysis.

taking 2002 as the base year. Thus, Table A.VII.1 presents the results of the two different specifications.

The models show that neither the relative importance of mining in relation to the total regional GDP, variations in mining-related GDP, nor *canon minero* transfers accruing to sub-national governments significantly correlate with the variation in economic growth rates across the regions during in2002–2008. I also tested a further specification, whose results are not represented in the tables, lagging the three mining-related variables to capture the probable delay in their effect on the dynamism of other economic sectors. However, the three lagged mining-related variables had no statistical significance.

Among the other control variables, the poverty level of the region during the previous year has a statistically significant negative effect on the rate of economic growth in all the models. However, the regression coefficients denote that this influence is quantitatively small. By contrast, the relative size of the agriculture sector positively relates to the rate of economic growth in a statistically significant fashion, and its effect is quantitatively more important. The importance of the construction sector to the regional economy is statistically significant in the random effects specification, but the effect disappears when year dummies are included. None of the remaining variables are statistically significant.

These results rule out both the existence of a positive spill over effect of mining into other economic sectors in the region, and the potential of *canon minero* transfers to promote economic development during the period covered by this study.

Table A VII.1 Regression of mining-related and other socio-economic variables on the rate of annual GDP growth in Peruvian regions (2002–2008).

Dependent variable: The annual rate of regional GDP growth excluding mining activities		
Time frame	Panel data 2002–2008	Panel data 2002–2008
Model specification	Model 1 Random-effects GLS regression ^a	Model 2 Pooled OLS regression with robust standard errors
Constant	.053 (.030)*	.052 (.030)*
Mining as a percentage of total regional GDP	2.38e ⁻⁴ (3.61e ⁻⁴)	3.35e ⁻⁴ (3.44e ⁻⁴)
Index of annual variation in mining GDP	4.64e ⁻⁴ (8.40e ⁻⁴)	4.24e ⁻⁴ (8.37e ⁻⁴)
Log of <i>canon minero</i> per capita	.001 (.002)	-.004 (.003)
Percentage of poverty in previous year	-6.71e ⁻⁴ (1.84e ⁻⁴)***	-4.93e ⁻⁴ (1.93e ⁻⁴)**
Government services as a percentage of total regional GDP	-.042 (.117)	-.088 (.118)
Manufacture as a percentage of total regional GDP	.027 (.080)	.056 (.091)
Trade as a percentage of total regional GDP	.025 (.106)	-.002 (.102)
Agriculture as a percentage of total regional GDP	.124 (.040)***	.109 (.039)***
Construction as a percentage of total regional GDP	.286 (.190)*	.287 (.188)
Y ₂₀₀₃		-.017 (.007)**
Y ₂₀₀₄		-.010 (.010)
Y ₂₀₀₅		.009 (.010)
Y ₂₀₀₆		.014 (.010)
Y ₂₀₀₇		.012 (.0109)
Y ₂₀₀₈		.016 (.009)*
R ²	.20	.29
N	168	168

Standard errors in parenthesis; ^a Standard errors are adjusted for clustering in regions;

*** significant at 1% level; ** significant at 5% level; * significant at 10% level.

A.VII.2 Testing the influence of mining on changes in the level of poverty (2004–2008)

The annual variation in poverty is the second dependent variable. This indicator captures the percentage of the population with an income below a region-specific benchmark of poverty. I used data for a period (2003–2008) when poverty levels had an average improvement of 2.8 percentage points per year.

I introduced in the model three mining-related indicators as independent variables, but in this case, I lagged *canon minero* transfers per capita by a year to reflect the lapse of time between spending the money and the potential results in terms of an increase in the population's income. In addition to these three variables, I also controlled for a set of socio-economic and political variables that shape the regional context:

- (i) Percentage of the regional population below the poverty line in the previous year controls for the departure level of the dependent variable.
- (ii) Percentage of indigenous population in the region measured in terms of mother tongue according to data from the 2007 national census.
- (iii) Percentage of the vote going to the radical candidate in the first round of the 2006 presidential elections, as a proxy for disagreement with economic policies.
- (iv) Rate of GDP regional growth as a proxy for economic dynamism.
- (v) Government services as a percentage of total regional GDP.

Table A.VII.2 presents the results of the analysis. The models explain little variance in the change in poverty level across Peruvian regions (6 and 16 per cent). In considering the importance of each variable in the models, the results contradict the official claims about the positive effects of mining. None of the three mining-related variables have any statistically significant positive correlation with changes in the level of poverty.

The percentage of the populations below the poverty line in the previous year and the number of indigenous people in the regions is statistically significant. Regions with high levels of poverty tended to improve more than those that were less afflicted. This result is clearer in model 2, which includes year dummies. By contrast, regions with a higher proportion of indigenous people advanced less than

the rest. However, this effect disappears in the second model. Indicators of the rate of economic growth and the importance of government services as part of regional GDP are not statistically significant.

Table A VII.2 Regression analysis of mining-related and other socio-economic variables on changes in poverty levels in Peruvian regions (2003–2008)

Dependent variable: Annual variation in poverty (percentage of the population below the poverty line)		
Time frame	Panel data 2003–2008	Panel data 2003–2008
Model specification	Model 1 Random-effects GLS regression ^a	Model 2 Pooled OLS regression with robust standard errors
Constant	.944 (2.670)	1.296 (2.902)
Mining as percentage of total regional GDP	-.051 (.048)	-.035 (.046)
Index of annual variation in mining GDP	.182 (211)	.145 (.224)
Log of <i>canon minero</i> per capita in the previous year	.205 (.606)	-.342 (.660)
Percentage of poverty in the previous year	.049 (.026)*	.050 (.025)**
Percentage of the indigenous population in the region	-.079 (.045)*	-.071 (.045)
Percentage of the vote to the radical candidate in the 2006 election	.047 (.063)	.050 (.065)
Variation in regional GDP	-1.575 (13.138)	-.526 (13.644)
Government services as a percentage of total regional GDP	-3.682 (14.422)	-9.728 (14.877)
		.427 (1.598)
Y ₂₀₀₅		-3.407 (1.715)**
Y ₂₀₀₆		.355 (1.597)
Y ₂₀₀₇		2.417 (1.646)
Y ₂₀₀₈		.853 (1.763)
R ²	.06	.16
N	144	144

Standard errors in parenthesis; ^a Standard errors are adjusted for clustering on regions;
 *** significant at 1% level; ** significant at 5% level; * significant at 10% level.

A.VII.3 Testing the influence of mining on the annual change in levels of drinking water, and sanitation coverage (2004–2008)

In this section, I tested the influence of the three mining-related variables and other control variables on two dependent variables that measure the annual change in levels of drinking water and sanitation coverage:

- (i) The annual variation in the percentage of the population with access to drinking water, according to the National Household Survey.²⁴⁰ The average percentage of people accessing drinking water at regional level dropped from 61.5 per cent in 2003 to 59.7 per cent in 2008, representing an average annual decrease of 0.4 percentage points in coverage.
- (ii) The annual variation in the percentage of the population with sanitation facilities in the home, according to the National Household Survey. From 2003 to 2008 the average sanitation coverage rate for the 24 regions of the panel increased from 36.9 to 42.8 per cent, with an average year improvement of 1.2 percentage points.

In this model, I lagged the three mining-related variables because I consider that any effect on changes in public service coverage involves a delay to allow time for project implementation. In addition, I controlled for four other variables:

- (i) Level of coverage of these public services in the previous year; these variables control for the departure level of the dependent variable.
- (ii) Percentage of the regional population below the poverty line in the previous year; this variable controls for the general level of poverty.
- (iii) Percentage of the indigenous population in the region measured in terms of mother tongue, according to the 2007 national census.
- (iv) Percentage of the rural population in 2007; this variable controls for characteristics of the regional population that might hinder the implementation of public services.

Tables A.VII.3 and A.VII.4 present the results of the regression analysis. None of the mining-related variables have any influence on variance in annual changes in drinking water or sanitation coverage. The models have very low explanatory

²⁴⁰ This indicator includes people with drinking water at home and those who have access to water in collective facilities outside the house.

powers and only the initial levels of coverage of both drinking water and sanitation facilities are statistically significant.

Table A VII.3 Regression analysis of mining-related and other socio-economic variables on changes in the level of drinking water coverage in Peruvian regions (2004–2008)

Dependent variable: Changes in levels of drinking water coverage		
Time frame	Panel data 2004–2008	Panel data 2004–2008
Model specification	Model 1 Random-effects GLS regression ^a	Model 2 Pooled OLS regression with robust standard errors
Constant	17.507 (5.830)***	15.068 (5.804)*
Mining as a percentage of total regional GDP in the previous year	-.046 (.065)	-.058 (.065)
Index of annual variation in mining GDP in the previous year	-.032 (.201)	-.066 (.198)
Log of <i>canon minero</i> per capita in the previous year	.1.45 (.918)	1.339 (1.027)
Percentage of the population with access to drinking water in the previous year	-.193 (.067)***	-.163 (.063)**
Percentage of poverty in the previous year	-.066 (.055)	-.081 (.062)
Percentage of the indigenous population in the region	.011 (.041)	.008 (.036)
Percentage of the rural population	-11.087 (6.877)	-7.422 (6.789)
Y ₂₀₀₅		1.330 (1.526)
Y ₂₀₀₆		1.204 (1.703)
Y ₂₀₀₇		-.495 (1.866)
Y ₂₀₀₈		-.915 2.246
R ²	.09	.11
N	120	120
Standard errors in parenthesis; ^a Standard errors are adjusted for clustering on regions; *** significant at 1% level; ** significant at 5% level; * significant at 10% level.		

Table A VII.4 Regression analysis of mining-related and other socio-economic variables on changes in the percentage of the population with sanitation facilities at home (2004–2008)

Dependent variable: Changes in drinking water coverage		
Time frame	Panel data 2004–2008	Panel data 2004–2008
Model specification	Model 1 Random-effects GLS regression ^a	Model 2 Pooled OLS regression with robust standard errors
Constant	5.544 (2.797)**	6.791 (3.113)**
Mining as a percentage of total regional GDP in the previous year	-.034 (.047)	-.040 (.050)
Index of annual variation in mining GDP in the previous year	.107 (.142)	0.105 (.132)
Log of <i>canon minero</i> per capita in the previous year	.670 (.723)	.812 (.834)
Percentage of the population with access to sanitation facilities in the previous year	-.076 (.037)**	-.080 (.038)**
Percentage of poverty in the previous year	-.011 (.047)	-.019 (.046)
Percentage of the indigenous population in the region	-.012 (.021)	-.014 (.021)
Percentage of the rural population	-2.625 (4.787)	-2.114 (4.631)
Y ₂₀₀₅		-1.075 (.834)
Y ₂₀₀₆		-1.034 (.940)
Y ₂₀₀₇		-1.575 (1.415)
Y ₂₀₀₈		-.840 (1.082)
R ²	.06	.08
N	120	120

Standard errors in parenthesis; ^a Standard errors are adjusted for clustering on regions;
 *** significant at 1% level; ** significant at 5% level; * significant at 10% level.

A.VII.4 Testing the influence of mining on the annual variation in school attendance at ages 3–5 and 12–16 (2003–2008).

This last set of regressions analyses the influence of the three mining-related variables on the school attendance rate in two different age groups:

- (i) Annual variation in the school attendance rate of children between three and five years in relation to the total population of the age group. The average annual attendance rate at regional level increased from 48.5 per cent in 2003 to 63.1 per cent in 2008, representing an annual improvement of 2.1 percentage points.
- (ii) Annual variation in the school attendance rate of children aged between 12 and 16 in relation to the total population of that age group. The average annual attendance rates improved from 66 to 72.7 per cent in 2003-2008, with an average annual improvement of 1 percentage point.

I used the same combination of independent variables as in the previous models, but introduced a control for the rate of school attendance in the previous year. The results are slightly different on this occasion (see Tables A.VII.5 and A.VII.6). As in previous cases, neither the level of mining activity nor any change in it had any significant influence on the rate of school attendance during the period. However, *canon minero* transfers do have a positive impact. Regarding the variation in the rate of school attendance of 3 and 5-year-olds, *canon minero* transfers are significant at the 10 per cent level. There is a caveat in terms of the robustness of the result, as the effect disappears in the alternative OLS specification (Table A.VII.5). The influence of *canon minero* transfers on the attendance of children aged between 12 and 16 is significant at a higher level (1%), and remains stable in the alternative specification.

Two variables have a negative effect on the change in the rates of school attendance of 3–5 and 12–16 year olds. The school attendance rates for the previous year have a clear negative impact. This is a logical result because the higher the starting point, the more difficult it is to improve rates. The percentage of the rural population living in the region is the second variable that has a negative effect. This negative correlation is also to be expected, since the displacement of the population makes it more difficult to improve either coverage or quality of education provision. Moreover, relocation also raises parents' cost of sending their children to school.

In contrast, the percentage of indigenous population in the region has a positive effect on the rate of school attendance of children between 12-16 years old.

Table A VII.5 Regression analysis of mining-related and other socio-economic variables on changes in the school attendance of children between three and five years old (2003–2008)

Dependent variable: Changes in the school attendance rate for 3–5-year olds		
Time frame	Panel data 2003–2008	Panel data 2003–2008
Model specification	Model 1 Random-effects GLS regression ^a	Model 2 Pooled OLS regression with robust standard errors
Constant	30.215 (5.747)***	28.973 (5.795)***
Mining as a percentage of total regional GDP in the previous year	-.013 (.041)	-.001 (.046)
Index of annual variation in mining GDP in the previous year	.016 (.164)	.055 (.161)
Log of <i>canon minero</i> per capita in the previous year	1.399 (.716)*	1.082 (.780)
School attendance rate at 3–5 years in the previous year	-.396 (.074)***	-.381 (.074)***
Percentage of poverty in the previous year	-.079 (.058)	-.063 (.066)
Percentage of the indigenous population in the region	.021 (.029)	.022 (.029)
Percentage of the rural population	-10.236 (5.346)*	-11.193 (6.152)*
Y ₂₀₀₄		.941 (2.053)
Y ₂₀₀₅		-2.498 (2.103)
Y ₂₀₀₆		-1.251 (2.215)
Y ₂₀₀₇		1.906 2.113
Y ₂₀₀₈		.926 (2.304)
R ²	.20	.23
N	144	144

Standard errors in parenthesis; ^a Standard errors are adjusted for clustering in regions;

*** significant at 1% level; ** significant at 5% level; * significant at 10% level.

Table A VII.6 Regression analysis of mining-related and other socio-economic variables on changes in the school attendance of children between 12 and 16 years old (2004–2008)

Dependent variable: Changes in the school attendance rate in 12–16-year olds		
Time frame	Panel data 2003–2008	Panel data 2003–2008
Model specification	Model 1 Random-effects GLS regression ^a	Model 2 Pooled OLS regression with robust standard errors
Constant	30.689 (5.397)***	31.310 (5.464)***
Mining as a percentage of total regional GDP in the previous year	.048 (.042)	.039 (.043)
Index of annual variation in mining GDP in the previous year	-.079 (.113)	-.066 (.126)
Log of <i>canon minero</i> per capita in the previous year	1.181 (.369)***	1.317 (.412)***
School attendance rate at 12–16 years in the previous year	-.374 (.062)***	-.368 (.061)***
Percentage of poverty in the previous year	-.048 (.037)	-.064 (.042)
Percentage of the indigenous population in the region	.080 (.022)***	.078 (.022)***
Percentage of the rural population	-13.490 (4.347)***	-11.555 (4.669)**
Y ₂₀₀₄		-1.588 (1.495)
Y ₂₀₀₅		-.505 (1.294)
Y ₂₀₀₆		-.584 (1.298)
Y ₂₀₀₇		-.465 1.294
Y ₂₀₀₈		-2.041 (1.314)
R ²	.23	.25
N	144	144

Standard errors in parenthesis; ^a Standard errors are adjusted for clustering in regions;
 *** significant at 1% level; ** significant at 5% level; * significant at 10% level.

APPENDIX VIII: Variables used in the regression analysis of mining-related variables over changes in economic and welfare indicators at regional level

A.VIII.1 Dependent variables

DEPENDENT VARIABLES	Variable	Type	Description	Period	Source	Obs.	Mean	Std. d.	Min.	Max.
	1. Annual GDP growth rate excluding mining activities	Scale	Annual change in sectoral GDP at constant 1994 prices.	2002–2008	NICS	168	6.1%	3.5%	-4.6%	20.9%
	2. Annual change in poverty	Scale	Annual change in the index of the population below the poverty line.	2003–2008	NICS	144	2.8	5.2	-11.4	17.6
	3. Annual change in the rate of drinking water coverage	Scale	Annual change in the rate of people with access to drinking water at home or through community services.	2004–2008	NICS	120	-0.4	5.7	-18.1	10.7
	4. Annual change in the rate of sanitation coverage	Scale	Annual change in the rate of people with sanitation facilities at home.	2004–2008	NICS	120	1.2	3.4	-15.6	9.3
	5. Annual change in the school attendance rate at 3–5-years	Scale	Annual change in the school attendance rate of children between 3 and 5 years in relation to the total population of that age.	2003–2008	NICS	144	2.4	7.6	24.1	28.3
	6. Annual change in the school attendance rate at 12–16 years	Scale	Annual change in the school attendance rate of children between 12 and 16 years in relation to the total population of that age.	2003–2008	NICS	144	1.1	4.7	-10.9	13.5

A.VIII.2 Mining-related independent variables

	Variable	Type	Description	Period	Source	Obs.	Mean	Std. d.	Min.	Max.
MINING-RELATED INDEPENDENT VARIABLES	1. Mining as a percentage of total regional GDP	Scale	Mining as a percentage of total regional GDP at constant 1994 prices.	2002–2008	NICS	168	12.4%	14.3%	0%	58.8%
	2. Index of annual variation in mining GDP	Scale	Multiplication of the annual variation of mining GDP at constant 1994 prices by the rate of mining in relation to total regional GDP in the previous year.	2002–2008	NICS	168	0.74	2.87	-12.32	17.11
	3. Log of <i>canon minero</i> per capita	Scale	Logarithm of annual <i>canon minero</i> transfers per capita going to the regional government and municipalities of each region.	2002–2008	MEF	168	1	1	0	3.56

A.VIII.3 Other control independent variables

	Variable	Type	Description	Period	Source	Obs.	Mean	Std. d.	Min.	Max.
CONTROL INDEPENDENT VARIABLES	1. Percentage of poverty in the previous year	Scale	Percentage of the regional population below the poverty line in the previous year.	2002–2008	NICS	168	53.9%	19.1%	15.1%	90.3%
	2. Government services as a percentage of total regional GDP	Scale	Government services as a percentage of total regional GDP at constant 1994 prices.	2002–2008	NICS	168	8.9%	4.1%	3.2%	23.2%
	3. Manufacture as a percentage of total regional GDP	Scale	Manufacture as a percentage of total regional GDP at constant 1994 prices.	2002–2008	NICS	168	13.2%	6.4%	25.9%	34.5%
	4. Trade as a percentage of total regional GDP	Scale	Trade as a percentage of total regional GDP at constant 1994 prices.	2002–2008	NICS	168	13%	4.8%	4.3%	27.7%
	5. Agriculture as a percentage of total regional GDP	Scale	Agriculture as a percentage of total regional GDP at constant 1994 prices.	2002–2008	NICS	168	15.8%	8.6%	3.4%	41.2%

6.	Construction as a percentage of total regional GDP	Scale	Construction as a percentage of total regional GDP at constant 1994 prices.	2002–2008	NICS	168	5.7%	2.6%	1.2%	15%
7.	Percentage of the indigenous population in the region	Scale	Percentage of the population affirming that in 2007 Spanish was not its mother tongue.	2003–2008	National Census 2007	144	22.1%	23.1%	0.4%	71%
8.	Percentage of the vote for the radical candidate in the 2006 election	Scale	Percentage of the electorate supporting the radical candidate in the first round of the 2006 national election.	2003–2008	ONPE	144	38.2%	13.2%	15.9%	62.7%
9.	Annual regional GDP growth rate	Scale	Annual change in total regional GDP at constant 1994 prices.	2003–2008	NICS	144	6.5%	4.3%	-7.4%	21.9%
10.	Percentage of the population with access to drinking water in the previous year	Scale	Percentage of the population with access to drinking water at home or through community services.	2004–2008	NICS	120	60.3%	18.2%	28.2%	94%
11.	Percentage of the population with access to sanitation facilities in the previous year	Scale	Percentage of the population with sanitation facilities at home.	2004–2008	NICS	120	39.4%	20.2%	7.6%	88.1%
12.	Percentage of the rural population	Scale	Percentage of the population living outside district capitals in agglomerations of less than 100 houses in 2007.	2003–2008	National census 2007	144	33.1%	18.8%	2%	68.3%
13.	Rate of school attendance of 3–5 year olds in the previous year	Scale	School attendance rate of children aged 3 and 5 in relation to the total population of that age.	2003–2008	NICS	144	56.4%	12.9%	20.2%	87.7%
14.	Rate of school attendance of 12–16 year olds in the previous year	Scale	School attendance rate of children aged 12–16 in relation to the total population of that age.	2003–2008	NICS	144	70.1%	10.9%	45.3%	90.9%

APPENDIX IX: Summary of variables used in the analysis of differences in welfare indicators between *canon*-rich and *canon*-poor Peruvian localities (1993–2007)

A.IX.1 Indicators of welfare improvement

	Variable	Type	Description	Period	Source	Obs.	Mean	Std. d.	Min.	Max.
TREATMENT INDICATORS OF WELFARE IMPROVEMENT 1993-2007	1. Volume of <i>canon</i> transfers per capita 2001–2007	Scale	Volume of <i>canon</i> transfers per capita accumulated 2001–2007 in PEN (the populace in each year being calculated through an interpolation of the population in 1993 and 2007).	2001–2007	MEF	1350	134.5	424	0	8587
	2. Change in the percentage of the population aged between 15 and 24 completing secondary education	Scale	Change in the percentage of the population between the ages of 15 and 25 completing secondary education over the period 1993–2007.	1993–2007	National census	1350	19.6	11.1%	-19.4	59.7
	3. Change in the percentage of the population with access to drinking water at home	Scale	Change in the percentage of the households with access to drinking water at home over the period 1993–2007.	1993–2007	National census	1350	11.9	21.9	-83.2	89.7
	4. Change in the percentage of the households with sanitation facilities at home	Scale	Change in the percentage of the households with sanitation facilities at home over the period 1993–2007.	1993–2007	National census	1350	8.1	10.9	-30.9	63.5
	5. Change in the percentage of the households with electricity supply at home	Scale	Change in the percentage of the households with electricity supply at home over the period 1993–2007	1993–2007	National census	1350	26.6	20.9	-40.7	87.1

A.IX. 2 Control variables for propensity score matching

	Variable	Type	Description	Period	Source	Obs.	Mean	Std. D.	Min.	Max.
CONTROL VARIABLES FOR THE EXECUTION OF PROPENSITY SCORE MATCHING	7. Population in 1993	Scale	Population of the locality in 1993.	1993	National census	1350	9625	13925	438	121894
	8. Percentage of the rural population in 2007	Scale	Percentage of the rural population in the locality in 2007.	2007	National census	1350	54.8%	29.9%	0%	98.7%
	9. Percentage of the indigenous population in 2007	Scale	Percentage of the population affirming that in 2007 Spanish was not its mother tongue.	2007	National census	1350	32.6%	36.5%	0%	98.9%
	10. Altitude of the locality	Scale	Altitude of the capital of the district measured in MSL.	---	National census	1350	2224.3	1404	3	4660
	11. Percentage of the 15–24 year old population with secondary education in 1993	Scale	Percentage of the 15–25-year old population with secondary education in 1993.	1993	National census	1350	53.3%	20.9%	8.3%	96.1%
	12. Percentage of the households with access to drinking water at home in 1993	Scale	Percentage of the households with access to drinking water at home in 1993.	1993	National census	1350	20.1%	21.5%	0%	96.1%
	13. Percentage of households with sanitation facilities at home in 1993	Scale	Percentage of the households with sanitation facilities at home in 1993.	1993	National census	1350	9.9%	16.6%	0	93.6%
	14. Percentage of the households with electricity at home in 1993	Scale	Percentage of the households with electricity at home in 1993.	1993	National census	1350	26.3%	28.1%	0%	99.6%

APPENDIX X: Robustness of PSM results

A.X.1 Analysis of the effect of different canon transfer levels

The following tables represent an estimate of the average effect of high volumes of *canon* transfer on changes in welfare indicators in Peruvian localities 1993–2007; comparing municipalities in receipt of *canon* transfers amounting to more or less than PEN 3,500 per capita respectively 2001–2007.

Table A.X.1 Estimate of the average effect of *canon* transfers above PEN 3,500 per capita (2001–2007) on changes in the percentage of people between 15 and 24 years old with secondary education 1993–2007

Matching estimation method	N° of <i>canon</i> -rich municipalities (treated)	N° of <i>canon</i> -poor municipalities (controls)	Average effect on treated	Bootstrapped standard error	t statistic
Nearest neighbour	53	49	3.817	2.508	1.522
Radius (.001)	49	494	1.479	1.662	.890
Kernel	53	1,248	1.046	1.140	.917
Stratification	53	1,248	1.702	1.660	1.025

Table A.X.2 Estimate of the average effect of *canon* transfers above PEN 3,500 per capita (2001–2007) on changes in the percentage of households with a home drinking water supply 1993–2007

Matching estimation method	N° of <i>canon</i> -rich municipalities (treated)	N° of <i>canon</i> -poor municipalities (controls)	Average effect on treated	Bootstrapped standard error	t statistic
Nearest neighbour	53	49	-5.728	5.721	-1.001
Radius (.001)	49	494	-1.973	5.113	-.386
Kernel	53	1,248	-3.032	3.898	-.778
Stratification	53	1,248	-1.219	4.115	-.296

Table A.X.3 Estimate of the average effect of *canon* transfers above PEN 3,500 per capita (2001–2007) on changes in the percentage of households with sanitation facilities at home over the period 1993–2007

Matching estimation method	N° of <i>canon</i> -rich municipalities (treated)	N° of <i>canon</i> -poor municipalities (controls)	Average effect on treated	Bootstrapped standard error	t statistic
Nearest neighbour	53	49	-1.837	2.608	-.704
Radius (.001)	49	494	-.163	2.284	-.071
Kernel	53	1,248	-.460	1.445	-.318
Stratification	53	1,248	-.548	1.788	-.306

Table A.X.4 Estimate of the average effect of *canon* transfers above PEN 3,500 per capita (2001–2007) on changes in the percentage of households with an electricity supply at home over the period 1993–2007

Matching estimation method	N° of <i>canon</i> -rich municipalities (treated)	N° of <i>canon</i> -poor municipalities (controls)	Average effect on treated	Bootstrapped standard error	t statistic
Nearest neighbour	53	49	10.544	5.049	2.088
Radius (.001)	49	494	9.474	4.021	2.356
Kernel	53	1,248	6.508	3.049	2.134
Stratification	53	1,248	4.404	4.142	1.063

A.X.2 Analysis of regional effects

Table A.X.5 Estimate of the average effect of *canon* transfers above PEN 2,100 per capita (2001–2007) in municipalities in all regions except Ancash on changes in the percentage of people between 15 and 24 years old with secondary education over the period 1993–2007

Matching estimation method	N° of <i>canon</i> -rich municipalities (treated)	N° of <i>canon</i> -poor municipalities (controls)	Average effect on treated	Bootstrapped standard error	t statistic
Nearest neighbour	74	67	1.904	1.902	1.001
Radius (.001)	67	751	0.334	1.519	.220
Kernel	74	1,187	.165	.913	.181
Stratification	74	1,187	.884	1.171	.755

Table A.X.6 Estimate of the average effect of *canon* transfers above PEN 2,100 per capita (2001–2007) in municipalities of all regions except Ancash on changes in the percentage of households with a drinking water supply at home over the period 1993–2007

Matching estimation method	N° of <i>canon</i> -rich municipalities (treated)	N° of <i>canon</i> -poor municipalities (controls)	Average effect on treated	Bootstrapped standard error	t statistic
Nearest neighbour	74	67	-9.498	4.437	-2.141
Radius (.001)	67	751	-10.016	3.133	-3.197
Kernel	74	1,187	-8.722	2.583	-3.377
Stratification	74	1,187	-8.157	2.497	-3.267

Table A.X.7 Estimate of the average effect of *canon* transfers above PEN 2,100 per capita (2001–2007) in municipalities of all regions except Ancash on changes in the percentage of households with sanitation facilities at home over the period 1993–2007

Matching estimation method	N° of <i>canon</i> -rich municipalities (treated)	N° of <i>canon</i> -poor municipalities (controls)	Average effect on treated	Bootstrapped standard error	t statistic
Nearest neighbour	74	67	-1.584	2.218	-.714
Radius (.001)	67	751	-1.873	1.600	-1.170
Kernel	74	1,187	-1.489	1.341	-1.110
Stratification	74	1,187	-1.209	1.468	-.823

Table A.X.8 Estimate of the average effect of *canon* transfers above PEN 2,100 per capita (2001–2007) in municipalities of all regions except Ancash on changes in the percentage of households with a home electricity supply 1993–2007

Matching estimation method	N° of <i>canon</i> -rich municipalities (treated)	N° of <i>canon</i> -poor municipalities (controls)	Average effect on treated	Bootstrapped standard error	t statistic
Nearest neighbour	74	67	4.609	3.821	1.206
Radius (.001)	67	751	-1.064	2.999	-.355
Kernel	74	1,187	-1.693	2.044	-.828
Stratification	74	1,187	-.763	2.425	-.315

APPENDIX XI: Summary of variables used in the regression analysis of *canon minero* transfers and other socio-economic variables for the allocation of capital investment in municipalities with more than 3,000 inhabitants

	Variable	Type	Period	Source	Obs.	Mean	Std. d.	Min.	Max.
DEPENDENT VARIABLES	1. Percentage of budget allocated to education	Scale	2005–2008	MEF	4,025	13.5%	13.7	0	92.2%
	2. Percentage of budget allocated to water and sanitation	Scale	2005–2008	MEF	4,025	12.7%	15.0	0	99.1%
	3. Percentage of budget allocated to electrification	Scale	2005–2008	MEF	4,025	5.9%	11.8	0	96.3%
	4. Percentage of budget allocated to agriculture promotion	Scale	2005–2008	MEF	4,015	7.3%	11.9	0	93.5%
	5. Percentage of budget allocated transport infrastructure	Scale	2005–2008	MEF	4,025	11.7%	15.0	0	93.6%
	6. Percentage of budget allocated to urban infrastructure	Scale	2005–2008	MEF	4,025	18.5%	20.2	0	100%
	7. Percentage of budget allocated to conspicuous constructions	Scale	2005–2008	MEF	4,025	20.6%	17.2	0	100%
CONTROL INDEPENDENT VARIABLES	8. Logarithm of <i>canon</i> transfers per capita	Scale	2005–2008	MEF	4,025	1.816	0.824	0	4.524
	9. Ratio of actual capital spending to capital spending budget	Scale	2005–2008	MEF	4,025	0.73	0.212	0	1.27
	10. Ratio of current spending to capital spending	Scale	2005–2008	MEF	4,025	0.99	2.37	0	138.08
	11. Logarithm of population	Scale	2005–2008	NICS	4,015	3.984	.379	3.477	5.304
	12. Poverty level in 2007	Scale	2005–2008	NICS	4,025	59.5%	23.0	1.4%	98.7%
	13. Percentage of 15-24 year olds with secondary education in 2007	Scale	2005–2008	National census	4,025	72.5%	17.7	10.9%	97.4%
	14. Percentage of rural population in 2007	Scale	2005–2008	National census	4,025	54.6%	31.5	0	98.7%
	15. Percentage of indigenous population in 2007	Scale	2005–2007	National census	4,025	31.9%	36.3%	0.3%	98.9%

APPENDIX XII: Summary of the percentage of the capital investment budget allocated to main sectors in researched municipalities by municipality and year (2005–2008)

	Year	Canon transfers per capita (PEN)	Capital investment budget per capita (PEN)	Percentage of execution of capital investment budget	Percentage of capital investment budget allocated to main sectors					
					Education	Water & sanitation	Agriculture	Roads	Urban infrastructure	Conspicuous constructions
ANCASH										
Jangas	Mean 05–08	1.780	2.257	71%	7.4%	11.9%	8.2%	4.2%	26.3%	32.4%
	2005	675	710	72%	3.0%	28.9%	5.2%	8.0%	22.2%	24.2%
	2006	937	1.194	100%	5.0%	8.5%	16.9%	2.4%	17.3%	31.7%
	2007	3.042	3.121	50%	9.6%	6.7%	9.4%	3.4%	25.8%	38.7%
	2008	2.465	4.000	62%	5.2%	3.4%	1.4%	3.1%	39.9%	35.0%
Huari	Mean 05–08	2.638	3.532	68%	12.9%	10.8%	9.4%	5.1%	16.2%	35.9%
	2005	32	176	80%	3.8%	5.8%	11.7%	0.0%	36.5%	28.9%
	2006	919	1.137	85%	10.1%	23.3%	12.9%	0.0%	9.5%	42.9%
	2007	5.735	5.930	41%	16.9%	8.4%	8.6%	14.4%	5.2%	30.2%
	2008	3.866	6.883	64%	20.9%	5.7%	4.4%	5.9%	13.7%	41.5%
Cajay	Mean 05–08	3.896	4.742	84%	6.8%	8.3%	6.8%	13.5%	25.0%	34.2%
	2005	55	125	78%	9.4%	0.4%	9.1%	2.4%	0.9%	77.8%
	2006	1.855	1.920	99%	11.4%	24.5%	3.0%	7.4%	43.9%	9.7%
	2007	7.798	8.013	51%	5.9%	6.6%	8.6%	31.1%	11.3%	34.9%
	2008	5.877	8.910	100%	0.3%	1.8%	6.6%	13.1%	43.9%	14.3%

	Year	Canon transfers per capita (PEN)	Capital investment budget per capita (PEN)	Percentage of execution of capital investment budget	Percentage of capital investment budget allocated to main sectors					
					Education	Water & sanitation	Agriculture	Roads	Urban infrastructure	Conspicuous constructions
Chavin de Huantar	Mean 05–08	3.239	4.478	55%	10.6%	12.2%	13.3%	3.5%	34.1%	21.2%
	2005	42	79	81%	3.5%	11.3%	5.8%	2.8%	48.7%	21.6%
	2006	1.330	1.358	58%	7.6%	8.9%	22.3%	1.2%	41.3%	16.1%
	2007	6.296	7.040	41%	8.9%	14.1%	14.6%	5.6%	26.1%	29.2%
	2008	5.290	9.436	42%	22.3%	14.6%	10.6%	4.4%	20.1%	17.9%
Huachis	Mean 05–08	4.012	4.268	69%	19.9%	8.0%	5.3%	17.6%	14.1%	28.9%
	2005	47	157	58%	41.6%	9.4%	2.7%	1.2%	0.1%	32.4%
	2006	1.905	2.054	81%	4.5%	6.7%	13.0%	44.1%	13.5%	15.9%
	2007	7.918	8.056	75%	10.4%	8.9%	4.8%	10.6%	17.9%	43.2%
	2008	6.177	6.803	63%	23.1%	7.1%	0.7%	14.5%	24.8%	23.9%
Ponto	Mean 05–08	3.718	4.687	64%	18.0%	10.3%	9.8%	12.5%	16.7%	23.9%
	2005	44	111	77%	10.0%	12.0%	12.7%	32.8%	0.6%	16.7%
	2006	1.670	1.794	75%	11.0%	13.8%	14.2%	0.6%	15.7%	43.0%
	2007	6.986	7.569	35%	24.6%	6.8%	10.8%	8.1%	17.7%	21.5%
	2008	6.170	9.277	68%	26.5%	8.7%	1.3%	8.5%	32.8%	14.4%
San Marcos	Mean 05–08	7.663	12.048	20%	33.9%	9.6%	2.3%	7.9%	20.3%	16.8%
	2005	42	165	61%	31.4%	5.5%	2.9%	3.9%	6.8%	26.7%
	2006	2.981	3.084	7%	14.9%	6.8%	0.3%	0.5%	44.9%	20.9%
	2007	15.122	17.541	4%	45.8%	14.0%	0.3%	15.7%	13.3%	9.8%
	2008	12.507	27.403	10%	43.5%	12.2%	5.5%	11.6%	16.2%	9.6%

	Year	Canon transfers per capita (PEN)	Capital investment budget per capita (PEN)	Percentage of execution of capital investment budget	Percentage of capital investment budget allocated to main sectors					
					Education	Water & sanitation	Agriculture	Roads	Urban infrastructure	Conspicuous constructions
MOQUEGUA										
Moquegua	Mean 05–08	1.847	3.003	48%	2.9%	6.1%	2.7%	9.4%	21.8%	25.2%
	2005	991	1.047	32%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	2006	1.915	2.554	51%	3.4%	11.4%	5.8%	13.0%	30.6%	26.9%
	2007	3.045	4.282	41%	4.6%	8.1%	2.4%	5.1%	37.0%	29.6%
	2008	1.437	4.127	70%	3.5%	4.8%	2.6%	19.4%	19.7%	44.1%
Carumas	Mean 05–08	4.264	6.777	42%	7.9%	11.6%	13.0%	26.0%	10.7%	23.4%
	2005	2.419	2.682	42%	8.0%	1.2%	22.2%	22.4%	2.8%	34.9%
	2006	4.296	6.000	34%	8.9%	3.1%	10.9%	0.3%	38.6%	37.5%
	2007	6.333	9.053	28%	4.9%	31.2%	0.1%	39.7%	1.1%	13.2%
	2008	4.008	9.371	64%	9.8%	10.8%	19.0%	41.4%	0.2%	7.7%
Samegua	Mean 05–08	1.699	2.559	59%	6.4%	11.9%	0.5%	2.7%	40.6%	33.7%
	2005	1.261	1.274	50%	15.6%	8.7%	0.8%	3.0%	23.8%	48.1%
	2006	1.628	2.198	83%	5.5%	6.2%	0.2%	0.6%	53.4%	32.3%
	2007	2.534	2.512	54%	3.3%	3.5%	0.1%	5.3%	62.3%	23.4%
	2008	1.373	4.251	47%	1.2%	29.1%	0.8%	1.9%	22.8%	31.1%

	Year	Canon transfers per capita (PEN)	Capital investment budget per capita (PEN)	Percentage of execution of capital investment budget	Percentage of capital investment budget allocated to main sectors					
					Education	Water & sanitation	Agriculture	Roads	Urban infrastructure	Conspicuous constructions
San Cristobal	Mean 05–08	3.788	4.197	70%	13.8%	16.0%	40.0%	9.4%	0.5%	20.2%
	2005	2.364	2.453	79%	n/a	n/a	n/a	n/a	n/a	n/a
	2006	4.207	4.775	93%	8.8%	6.3%	30.7%	8.3%	0.4%	45.5%
	2007	5.493	4.839	55%	19.1%	22.4%	39.5%	12.7%	0.0%	6.3%
	2008	3.087	4.719	53%	13.6%	19.3%	49.7%	7.4%	1.3%	8.8%
Torata	Mean 05–08	8.779	12.694	52%	3.8%	7.7%	35.4%	11.5%	8.7%	19.1
	2005	5.170	5.428	34%	n/a	n/a	n/a	n/a	n/a	n/a
	2006	8.924	12.603	53%	4.6%	9.6%	31.8%	8.3%	5.8%	28.1%
	2007	12.930	16.979	48%	5.4%	7.7%	38.9%	11.0%	9.9%	14.1%
	2008	8.092	15.767	71%	1.7%	5.7%	35.6%	15.3%	10.4%	15.1%
PASCO										
Huachon	Mean 05–08	1.209	1.674	71%	20.5%	2.2%	4.8%	17.9%	9.5%	42.3%
	2005	152	202	82%	37.3%	2.4%	0.0%	13.6%	4.4%	42.3%
	2006	461	654	80%	13.2%	4.0%	17.0%	16.9%	28.1%	20.7%
	2007	2.317	2.616	46%	14.4%	1.9%	2.1%	17.3%	3.6%	52.8%
	2008	1.905	3.224	77%	17.1%	0.6%	0.2%	23.8%	2.0%	53.4%

	Year	Canon transfers per capita (PEN)	Capital investment budget per capita (PEN)	Percentage of execution of capital investment budget	Percentage of capital investment budget allocated to main sectors					
					Education	Water & sanitation	Agriculture	Roads	Urban infrastructure	Conspicuous constructions
Huayllay	Mean 05–08	1.416	2.138	40%	20.0%	18.4%	2.2%	2.7%	18.7%	17.7%
	2005	143	203	30%	29.3%	19.9%	0.0%	7.8%	5.9%	17.1%
	2006	608	893	60%	15.1%	15.5%	0.1%	0.6%	11.0%	26.7%
	2007	2.291	2.905	25%	20.3%	27.7%	7.7%	0.5%	20.0%	8.0%
	2008	2.621	4.550	45%	15.3%	10.4%	0.9%	1.9%	37.7%	18.8%
Ninacaca	Mean 05–08	1.157	1.848	37%	16.6%	3.9%	13.2%	3.7%	25.1%	27.4%
	2005	117	219	25%	18.6%	0.3%	8.1%	0.0%	19.7%	27.4%
	2006	389	651	65%	9.8%	2.6%	5.6%	6.9%	49.7%	21.8%
	2007	2.309	2.402	18%	13.9%	5.5%	3.7%	1.3%	26.2%	44.5%
	2008	1.814	4.120	39%	24.2%	7.1%	35.4%	6.7%	4.7%	16.1%
San Fc de Asis de Yarusyacan	Mean 05–08	1.145	1.694	42%	7.6%	8.4%	6.8%	21.9%	16.9%	23.6%
	2005	245	283	32%	2.5%	8.6%	0.0%	19.6%	49.4%	13.6%
	2006	549	796	75%	9.0%	10.8%	10.6%	7.3%	10.2%	28.1%
	2007	1.839	2.051	21%	13.0%	3.1%	10.7%	15.1%	3.5%	29.3%
	2008	1.947	3.645	42%	5.7%	11.3%	5.8%	45.8%	4.6%	23.2%

	Year	Canon transfers per capita (PEN)	Capital investment budget per capita (PEN)	Percentage of execution of capital investment budget	Percentage of capital investment budget allocated to main sectors					
					Education	Water & sanitation	Agriculture	Roads	Urban infrastructure	Conspicuous constructions
Simon Bolivar	Mean 05–08	1.085	1.463	54%	13.3%	4.7%	0.9%	0.7%	51.1%	23.8%
	2005	179	217	31%	22.9%	6.9%	1.2%	0.0%	57.8%	7.5%
	2006	512	699	95%	3.7%	2.1%	0.0%	0.0%	54.8%	35.8%
	2007	1.829	1.767	32%	17.1%	2.8%	0.0%	2.0%	35.6%	37.3%
	2008	1.821	3.170	58%	9.6%	6.9%	2.3%	0.9%	56.1%	14.6%
Tinyahuarco	Mean 05–08	1.345	2.138	33%	20.1%	15.8%	2.4%	0.2%	18.6%	19.4%
	2005	182	243	23%	39.9%	34.2%	3.1%	0.0%	10.8%	8.1%
	2006	531	772	51%	7.8%	6.2%	0.5%	0.0%	4.9%	20.6%
	2007	2.650	3.089	18%	8.6%	10.3%	4.4%	0.7%	21.3%	34.1%
	2008	2.016	4.450	42%	24.0%	12.5%	1.8%	0.0%	37.4%	14.9%

APPENDIX XIII Summary of welfare indicators in researched municipalities over the period 1993–2007

Municipality	Percentage of population below poverty line 2007	1993 percentages				Percentage changes over the period 1993–2007			
		15–24-year-old population with secondary education	Households with access to drinking water at home	Households with sanitation facilities at home	Households with electricity supply at home	15–24 year-old population with secondary education	Households with access to drinking water at home	Households with sanitation facilities at home	Households with electricity supply at home
ANCASH									
Mean	70%	43 %	16%	5%	10%	30	32	13	57
Jangas	55%	41%	30%	4%	14%	31	-3	17	69
Huari	56%	77%	32%	22%	25%	14	37	20	55
Cajay	79%	33%	9%	0%	4%	31	56	10	55
Chavin de Huantar	79%	29%	13%	7%	14%	30	55	15	51
Huachis	80%	39%	5%	0%	1%	30	15	5	60
Ponto	80%	40%	8%	0%	1%	39	7	3	57
San Marcos	64%	45%	15%	5%	10%	35	57	18	55
MOQUEGUA									
Mean	34%	77%	53%	39%	50%	15	-13	0	19
Moquegua	22%	91%	74%	68%	79%	5	-6	-3	6
Carumas	50%	64%	43%	9%	14%	24	-39	6	27
Samegua	23%	93%	64%	61%	77%	4	10	11	6
San Cristobal	55%	57%	22%	1%	12%	35	-18	1	60
Torata	21%	83%	62%	56%	67%	8	-11	-12	-5

Municipality	Percentage of population below poverty line 2007	1993 percentages				Percentage changes over the period 1993–2007			
		15–24-year-old population with secondary education	Households with access to drinking water at home	Households with sanitation facilities at home	Households with electricity supply at home	15–24 year-old population with secondary education	Households with access to drinking water at home	Households with sanitation facilities at home	Households with electricity supply at home
PASCO									
Mean	63%	79%	18%	12%	60%	10	1	7	15
Huachon	74%	72%	15%	5%	39%	4	-14	4	44
Huayllay	57%	77%	6%	7%	32%	16	-3	-2	39
Ninacaca	74%	70%	8%	1%	47%	15	-7	12	15
S. Fco de Yarusyakan	84%	81%	40%	40%	73%	13	-29	-29	0
Simon Bolivar	44%	85%	20%	9%	82%	7	11	20	1
Tinyahuarco	47%	91%	18%	11%	87%	4	48	37	-9