

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

Behind the Economic Figures: Large-scale Mining and Rural Poverty Reduction in Zambia, the Case of Kansanshi Copper Mine in Solwezi.



A thesis presented in partial fulfillment of the requirements for the Degree of
Master of Philosophy in Development Studies
at Massey University, Palmerston North,
New Zealand.

Kingsley Haanyembe Cheelo

2008

ABSTRACT

Mining is promoted as a lead-economic sector in most mineral-rich countries. Depending on the contemporary global development ideology, the place of mining within the development industry has always been justified. Under the poverty reduction agenda, which took the centre-stage in the late 1990s and early 2000s, it has been argued in theory that investments, especially in large-scale mining would lead to poverty reduction in mining communities through opening up economic opportunities in which they can participate; increase their capabilities to participate in the local economies; enhance their security by reducing their vulnerability and exposure to risks; and empowering them to participate in issues that affect their lives.

Zambia as a mineral-rich country adapted the linkages between mining and poverty reduction and promoted the development of Kansanshi copper mine within the country's macroeconomic policy framework of achieving sustained economic growth and poverty reduction. Because of the positive response of the mining sector to huge investments, the domestic economy has been recording positive growth rates in excess of 5 percent since the beginning of the 2000s, with other economic indicators such as inflation, currency appreciation, and balance of payments recording positive trends.

Applying the Sustainable Livelihoods Framework (SLF), this thesis explores the extent to which the development of Kansanshi copper mine in Solwezi has impacted on local people's livelihoods in the context of the four linkages between mining and poverty reduction promulgated in theory. It comes out clearly in the thesis that the development of the mine has opened up economic opportunities that are in areas that do not allow the full participation of local people; the development of local people's capabilities is either minimal or non-existent; mine development enhanced local people's vulnerability and exposure to risks through displacement and seizure of productive systems; and disempowered them through the way mining and land rights were obtained from the government.

The thesis concludes on the note that since mining development cannot be stopped, there is need for governments to deliberately cater for local people who often struggle to fit within the transformed local economies through comprehensive implementation frameworks that promote interaction among parties involved and improved communication channels, skills training and provision of relevant resources such as agricultural inputs and microcredit facilities.

DEDICATIONS

This thesis is dedicated
to my beloved daughter Lushomo Namoonga Cheelo,
who was born when I was in the midst of my Masters' studies.
Long live girl.

ACKNOWLEDGEMENTS

I owe gratitude to the people who contributed to the success of this piece of work in various ways and capacities.

Acknowledgements go to my supervisors Dr. Rochelle Stewart-Withers, Dr. Tanira Kingi, and Dr. Katherine McKinnon during the initial stage for the guidance rendered and patience exercised.

Many thanks also go to the people of Mushitala, Kyafukuma, Kabwela, and Kyafukuma who agreed to provide the valuable information that has made this thesis what it is. Respondents from various institutions consulted are also acknowledged, such as Mr. Felix Nkulukusa (Ministry of Finance and National Planning), Mr. Ndalamwa (Ministry of Mines and Minerals Development), Hon. Chipungu, MP (Minister, North Western Province), Hon. Ben Tetamashimba, MP (Area Member of Parliament, Solwezi Central), Mr. Ben Kapumo (Acting Solwezi District Commissioner), Mr. Rodney Machila (Provincial Labour Officer, North Western Province), Ms. Brenda Kapika (Environmental Officer, Kansanshi Mine), Ms. Kyapalushi Kapatamoyo (North Western Provincial Coordinator, Civil Society for Poverty Reduction), Mr. Mwepu (Acting Chief Kapijimpanga), Acting Sub-Chief Kibanda (Kyafukuma), Mr. Kabwita (Solwezi District Health Management Team), Mr. Kimfwa (Secretary for Mushitala Compensation Committee), and Headwoman Mushitala.

I would also like to thank the New Zealand Aid for International Development (NZAID) for the scholarship and making resources available for the study.

Finally, special thanks go to my wife Maimbo Leadah Muntanga Cheelo and my lovely daughter Lushomo Namoonga Cheelo who offered support in various ways and gave me space to prioritize academic work over certain family activities.

TABLE OF CONTENTS

ABSTRACT.....	ii
DEDICATIONS.....	iii
ACKNOWLEDGEMENTS.....	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES.....	ix
LIST OF FIGURES.....	x
GROCERY OF TERMS AND ACRONYMS.....	xi

CHAPTER 1 INTRODUCING THE STUDY	1
1.1 INTRODUCTION.....	1
1.2 BACKGROUND TO THE ISSUE: LARGE-SCALE MINING AND ITS CONTRIBUTION TO MACRO AND MICRO DEVELOPMENT	2
1.3 SUSTAINABLE LIVELIHOODS FRAMEWORK (SLF).....	6
1.3.1 <i>Application of the Sustainable Livelihoods Framework in development practice</i>	10
1.3.2 <i>Application of the SLF to this study</i>	12
1.4 PROBLEM STATEMENT.....	12
1.5 AIM AND SIGNIFICANCE OF THE THESIS	12
1.6 RESEARCH QUESTION	13
1.7 METHODOLOGICAL OVERVIEW.....	13
1.8 OVERVIEW OF THE THESIS	14
CHAPTER 2 THE POVERTY REDUCTION AGENDA.....	17
2.1 INTRODUCTION.....	17
2.2 THE POVERTY REDUCTION STRATEGY INITIATIVE AS A NEW PARADIGM	17
2.2.1 <i>Origins of poverty reduction agenda</i>	17
2.2.2 <i>The PRSP Policy Framework in context</i>	21
2.2.3 <i>The PRSPs' triangular shape</i>	22
2.2.4 <i>Operationalising the PRSPs – Experience in practice</i>	27
2.3 CONCLUSIONS	39
CHAPTER 3 MINING AND POVERTY REDUCTION	42
3.1 INTRODUCTION.....	42
3.2 MINING IN THE ERA OF THE POVERTY REDUCTION AGENDA	43
3.2.1 <i>Mining and opened up economic opportunities</i>	44
3.2.2 <i>Mining and enhanced local capabilities</i>	54
3.2.3 <i>Security</i>	55
3.2.4 <i>Empowerment</i>	56
3.3 MINING AND GOVERNMENT CAPACITIES	58
3.4 MINING AND POVERTY REDUCTION IN AFRICA.....	59
3.4.1 <i>Privatising the mining sector in Africa</i>	59
3.4.2 <i>Impact of reforming the mining sector in Africa</i>	62
3.4.3 <i>Fiscal policies and the mining sector</i>	64
3.5 NEGATIVE IMPACTS OF THE MINING SECTOR	70
3.5.1 <i>Environmental impacts</i>	70
3.5.2 <i>Social Impacts</i>	72
3.6 CONCLUSIONS	74

CHAPTER 4 THE REPUBLIC OF ZAMBIA IN CONTEXT	77
4.1 INTRODUCTION.....	77
4.2 GEOGRAPHICAL LOCATION AND CLIMATIC CONDITIONS	77
4.3 DEMOGRAPHIC CHARACTERISTICS	79
4.4 DEVELOPMENT IDEOLOGIES SHAPING THE ZAMBIAN ECONOMY	79
4.4.1 <i>Free-market economy (1964-1972)</i>	79
4.4.2 <i>State Controlled economy (1973-1984)</i>	80
4.4.3 <i>Economic transition (1985-1990)</i>	81
4.4.4 <i>Stabilisation and structural adjustment programmes (1991-2001)</i>	81
4.4.5 <i>Poverty reduction agenda (2002 to date)</i>	83
4.4.6 <i>Current socioeconomic trends (2002-2007)</i>	84
4.5 THE PLACE OF MINING IN THE ZAMBIAN ECONOMY AND SOCIETY	87
4.5.1 <i>Copper mining in the first ten years of independence</i>	87
4.5.2 <i>ZCCM and the mining communities</i>	88
4.5.3 <i>Copper mining during economic crises</i>	89
4.5.4 <i>Privatisation of the mining sector</i>	89
4.6 INVESTMENT OPPORTUNITIES IN THE MINING INDUSTRY	91
4.7 SOLWEZI – THE TOWN OF NEW OPPORTUNITIES	93
4.8 KANSANSHI MINE AS A CASE STUDY.....	95
4.8.1 <i>History of Kansanshi mine</i>	95
4.8.2 <i>Fixed assets holdings</i>	97
4.8.3 <i>Production and operation review</i>	97
4.8.4 <i>Kansanshi development agreement</i>	98
4.9 CONCLUSIONS.....	100
CHAPTER 5 METHODOLOGY	103
5.1 INTRODUCTION.....	103
5.2 RESEARCH DESIGN	104
5.2.1 <i>Ethical issues</i>	104
5.2.2 <i>Research boundaries</i>	106
5.2.3 <i>Establishing my bearings – doing fieldwork in Solwezi</i>	106
5.2.4 <i>Characteristics of research sites</i>	107
5.2.5 <i>Research participants</i>	111
5.3 DATA COLLECTION METHODS AND IMPLEMENTATION ISSUES	111
5.3.1 <i>Quantitative and Qualitative methods</i>	111
5.3.2 <i>Scheduling in the field</i>	112
5.3.3 <i>Sources of information</i>	113
5.3.4 <i>Semi structured interviews</i>	114
5.3.5 <i>Household interviews</i>	114
5.3.6 <i>Focus Group Discussions (FGD)</i>	116
5.4 DATA ANALYSIS.....	116
5.5 CONCLUSIONS.....	118
CHAPTER 6 KANSANSHI MINE AND LOCAL COMMUNITIES' LIVELIHOODS.....	119
6.1 INTRODUCTION.....	119
6.2 HUMAN CAPITAL	120
6.2.1 <i>Labour</i>	120
6.2.2 <i>Education</i>	122
6.2.3 <i>Health</i>	124
6.3 NATURAL CAPITAL.....	126
6.3.1 <i>Land holdings</i>	127
6.3.2 <i>Crops grown</i>	129

6.3.3	<i>Compensation</i>	131
6.3.4	<i>Livestock holdings</i>	131
6.4	PHYSICAL CAPITAL	133
6.4.1	<i>Ownership of physical assets</i>	134
6.4.2	<i>The road network</i>	135
6.4.3	<i>Electricity</i>	136
6.4.4	<i>Market Shelters</i>	137
6.5	FINANCIAL CAPITAL	138
6.5.1	<i>Sources of income</i>	138
6.5.2	<i>Main items of expenditure</i>	140
6.5.3	<i>Credits</i>	141
6.5.4	<i>Savings and market-based activities</i>	142
6.6	SOCIAL CAPITAL	144
6.7	CONCLUSIONS	144
CHAPTER 7 KANSANSHI MINE AND LOCAL PERCEPTIONS.....		147
7.1	INTRODUCTION.....	147
7.2	LOCAL COMMUNITIES' PERCEPTION OF BENEFITS FROM THE PRESENCE OF KANSANSHI MINE	148
7.2.1	<i>Positive impacts of the Kansanshi mine on local people's livelihoods</i>	148
7.2.2	<i>Negative impact of Kansanshi mine on the local people's well-being</i>	152
7.3	WHO IS NOT DOING WHAT?	166
7.4	EXPECTATIONS OF THE LOCAL PEOPLE AND KANSANSHI MINE.....	169
7.5	CONCLUSIONS	171
CHAPTER 8 DISCUSSION.....		174
8.1	INTRODUCTION.....	174
8.2	MICROEFFECTS ON ECONOMIC OPPORTUNITIES	175
8.2.1	<i>Revenue generation and distributional effects</i>	175
8.2.2	<i>Income generation among the local people</i>	181
8.2.3	<i>Economic growth and rural poverty reduction</i>	187
8.2.4	<i>Creation of upstream and downstream industries</i>	190
8.2.5	<i>Physical infrastructure development</i>	191
8.3	MICROEFFECTS ON CAPABILITIES	193
8.3.1	<i>Training local suppliers and entrepreneurs</i>	193
8.3.2	<i>Supporting social service provision</i>	194
8.4	MICROEFFECTS ON SECURITY	196
8.4.1	<i>Homelessness</i>	198
8.4.2	<i>Landlessness</i>	199
8.4.3	<i>Food insecurity</i>	199
8.4.4	<i>Economic insecurity</i>	200
8.4.5	<i>Other potential risks</i>	202
8.5	MICROEFFECTS ON EMPOWERMENT	203
8.5.1	<i>Kansanshi mine and access to information</i>	203
8.5.2	<i>Kansanshi mine and local people's participation</i>	204
8.6	CONCLUSIONS	206
CHAPTER 9 CONCLUSIONS		208
9.1	INTRODUCTION.....	208
9.2	SUMMARY OF KEY FINDINGS	209
9.2.1	<i>Available yet unreachable economic opportunities</i>	209
9.2.2	<i>Minimal capacity building programmes</i>	212

9.2.3	<i>Increased insecurity</i>	214
9.2.4	<i>Informative consultation process</i>	216
9.3	POLICY IMPLICATIONS.....	217
9.4	AREAS FOR FUTURE RESEARCH	218
REFERENCES		220
APPENDICES.....		231
Appendix 1: Information Sheet.....		231
Appendix 2: Participants' Informed Consent Form.....		234
Appendix 3: List of Key Informants.....		235
Appendix 4: Interview Schedule for Community Participants.....		238

LIST OF TABLES

TABLE 2.1: TOTAL DEBT AND DEBT SERVICE RATIOS, 1998.....	19
TABLE 2.2: POPULAR DEMANDS AGAINST TYPICAL PRSP POLICY RECIPES	31
TABLE 2.3: MILESTONES IN THE SIGNING OF PRGF AGREEMENTS AND PRSP ENDORSEMENT.....	35
TABLE 3.1: SELECTED MEAN OECD TARIFFS ON PROCESSED AND UNPROCESSED EXTRACTIVE PRODUCTS	51
TABLE 3.2: RANKING OF TAXATION CRITERIA OUT OF 60 INVESTMENT CRITERIA.....	65
TABLE 3.3: INCOME TAX RATES APPLIED TO THE MINING SECTOR IN SELECTED COUNTRIES	66
TABLE 4.1 ZAMBIA'S EXTERNAL DEBT STOCK, 1990-1996 (US\$ MILLION AT CURRENT PRICES).....	82
TABLE 4.2: REAL GDP GROWTH AND INFLATION PERFORMANCE, 2002-2006	85
TABLE 6.1: HOUSEHOLD SIZE.....	120
TABLE 6.2 DISTRIBUTION OF TIME TAKEN TO REACH NEAREST HEALTH FACILITY.	124
TABLE 6.3: DISTRIBUTION OF LAND HOLDINGS BEFORE AND AFTER MINE OPERATIONS.....	127
TABLE 6.4: SOURCE OF FOOD FOR THOSE WHO LOST THEIR LAND TO MINING ACTIVITIES	130
TABLE 6.5: PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY TYPE OF LIVESTOCK HOLDINGS.....	131
TABLE 6.6: PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY TOTAL OF LIVESTOCK HOLDINGS	133
TABLE 6.7: DISTRIBUTION OF PHYSICAL ASSET HOLDINGS BY PARTICIPANTS.....	134
TABLE 6.8: DISTRIBUTION OF HOUSEHOLDS BY SOURCE OF INCOME ON REGULAR BASIS.....	138
TABLE 6.9: DISTRIBUTION OF HOUSEHOLDS SHOWING SOURCES OF INCOME	139
TABLE 6.10: DISTRIBUTION OF ITEMS OF EXPENDITURES BY HOUSEHOLDS.....	140
TABLE 6.11: DISTRIBUTION OF HOUSEHOLDS BY SOURCE OF CREDITS.....	141
TABLE 6.12: DISTRIBUTION OF HOUSEHOLDS BY FORMS OF SAVINGS	142
TABLE 8.1: COMMUNITIES EXPECTATIONS AGAINST PROJECTS UNDERTAKEN IN REALITY	180

LIST OF FIGURES

FIGURE 1.1 MINING-POVERTY REDUCTION LINKAGES FRAMEWORK.....	3
FIGURE 1.2 SUSTAINABLE LIVELIHOODS FRAMEWORK.....	7
FIGURE 3.1 MINING – POVERTY REDUCTION LINKAGES FRAMEWORK.....	44
FIGURE 4.1 MAP OF ZAMBIA SHOWING NEIGHBOURING COUNTRIES AND LOCATION OF SOLWEZI.....	78
FIGURE 4.2 GRAPH SHOWING TRENDS IN HDI VALUE BETWEEN 1975 AND 2005	86
FIGURE 4.3 MAP SHOWING THE LOCATION OF KANSANSHI MINE IN RELATION TO OTHER MINES IN ZAMBIA	96
FIGURE 6.1 PERCENTAGE DISTRIBUTION OF RESPONDENTS BY EDUCATION LEVELS ATTAINED.....	122
FIGURE 6.2 PERCENTAGE DISTRIBUTION BY EDUCATION LEVEL AND GENDER	123
FIGURE 6.3 PERCENTAGE DISTRIBUTION OF SOURCES OF MEDICATION OTHER THAN CHEMISTS.....	126
FIGURE 6.4 PERCENTAGE DISTRIBUTION OF LAND HOLDINGS BEFORE AND AFTER MINE DEVELOPMENT .	128
FIGURE 6.5 PERCENTAGE DISTRIBUTION OF SOURCES OF FOOD BEFORE AND AFTER MINE DEVELOPMENT	129
FIGURE 6.6 PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY TYPE OF LIVESTOCK HOLDINGS.....	132
FIGURE 6.7 PHOTOGRAPH OF STATE RANCH ROAD AND WHERE IT JOINS THE SOLWEZI – CONGO ROAD ...	136
FIGURE 6.8 PHOTOGRAPH SHOWING ONE OF THE TEMPORARY MARKET SHELTERS IN MUSHITALA.....	137
FIGURE 6.9 PHOTOGRAPH OF A COFFEE TABLE MADE BY AN ENTERPRISING CARPENTER OF KYAFUKUMA COMMUNITY	143
FIGURE 7.1 PHOTOGRAPH OF CONSIGNMENTS OF CHARCOAL PENDING COLLECTION BY RETAILERS IN TOWN	151
FIGURE 7.2 WATER-LOGGED AREA OF 350 M WIDE BETWEEN THE COMMUNITY AND THE FOOT-BRIDGE. .	154
FIGURE 7.3 MAKE-SHIFT FOOT-BRIDGE CONSTRUCTED BY THE COMMUNITY ACROSS THE KIFUBWA STREAM	155
FIGURE 7.4 METALLIC FOOT-BRIDGE FUNDED BY KANSANSHI FOUNDATION ACROSS THE KIFUBWA STREAM	155
FIGURE 8.1 REAL GDP GROWTH AND INFLATION PERFORMANCE BETWEEN 2002 AND 2006.....	188
FIGURE 8.2 PHOTOGRAPH SHOWING THE CLEARING OF FARMLAND IN THE NEW SETTLEMENT OF STATE RANCH.....	198

GLOSSARY OF TERMS AND ACRONYMS

<i>Munkoyo</i>	Local brew
<i>Ba Israeli</i>	Villages identifying with a religious sect call “The Israelites”
ADB	Asian Development Bank
AFRODAD	African Forum and Network on Debt and Development
AIDS	Acquired Immuno Deficiency Syndrome
CEDLA	Centre for Latin American Research and Documentation
CHAMP	Comprehensive HIV/AIDS Management Programme
CPIA	Country Policy and Institutional Assessment
CSPR	Civil Society for Poverty Reduction
DC	District Commissioner
DDH	District Director of Health
DFID	Department for International Development
DFS	Defensive Feasibility Studies
DRC	Democratic Republic of Congo
ECZ	Environmental Council of Zambia
EDRC	Economic Development Research Centre
ERIP	Economic Recovery and Investment Project
ERP	Economic Recovery programme
ESA	Economic and Structural Adjustment
ESAC	Economic and Structural Adjustment Credit
ESAF	Enhanced Structural Adjustment Facility
FGD	Focused Group Discussion
FQM	First Quantum Minerals Limited
GDP	Gross Domestic Product
GNP	Gross National Product
GRZ	Government Republic of Zambia
HDI	Human Development Index
HIPC	Heavily Indebted Poor Countries

HIV	Humane Immunodeficiency Virus
IAD	Inter-American Development
IDA	International Development Assistance
IFI	International Financing Institutions
IMF	International Monetary Fund
IMR	Infant Mortality Rate
IRR	Impoverishment, Risk and Rehabilitation Model
KCM	Konkola Copper Mines
LADDER	Livelihoods and Diversification and Directions Explored by Research
LCMS	Living Conditions Monitoring Survey
MACO	Ministry of Agriculture and Cooperatives
MDGs	Millennium Development Goals
MFNP	Ministry of Finance and National Planning
MMMD	Ministry of Mines and Minerals Development
MMD	Movement for Multiparty Democracy
MNCs	Multinational Corporations
MP	Member of Parliament
MTEF	Medium Term Expenditure Framework
NCCM	Nchanga Consolidated Copper Mines
NGO	Non-Governmental Organisation
NPV	Net Present Value
OECD	Organisation for Economic Cooperation and Development
PNG	Papua New Guinea
PRGF	Poverty Reduction and Growth Facility
PRP	Poverty Reduction Programme
PRS	Poverty Reduction Strategy
PRSP	Poverty Reduction Strategy Papers
PTA	Parents - Teachers' Association
RCCM	Roan Consolidated Copper Mines
SACCORD	Southern African Centre for Constructive Resolution of Disputes
SAP	Structural Adjustment Programme

SAPRIN	Structural Adjustment Participatory Review International Network
SDHMT	Solwezi District Health Management Team
SLF	Sustainable Livelihoods Framework
SMC	Solwezi Municipal Council
STDs	Sexually Transmitted Diseases
TBAs	Traditional Birth Attendants
TNCs	Transnational Corporations
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNIP	United National Independence Party
UK	United Kingdom
USA	United States of America
US\$	United States of America Dollar
USSR	Union of Soviet Socialist Republics
VAT	Value Added Tax
WDR	World Development Report
ZAMSIF	Zambia Social Investment Fund
ZCCM	Zambia Consolidated Copper Mines
ZCCM-IH	Zambia Consolidated Copper Mines – Investment Holdings
ZDES	Zambia Demographic Education Survey
ZDHS	Zambia Demographic Health Survey
ZIMCO	Zambia Industries and Mining Corporation
ZMK	Zambian Kwacha
ZNS	Zambia National Service