

**Re-locating mineral-dependant communities in the Era of
Globalization, 1979-1999:
A Comparative study of the Zambian Copperbelt and Timmins, Ontario**

Project report

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Funded by IDRC Canadian Window on Development Program

Introduction

This research project was undertaken in partial fulfillment of the requirements for the Doctor of Philosophy degree in Political Science at York University. It involved a comparative investigation of conditions in two localities, one in Southern Africa and the other in Northern Ontario. The research was undertaken during the period January 2002 - December 2004.

The study employed both qualitative and quantitative methodology, including case studies, primary and secondary data analysis, personal interviews, focus groups and targeted random surveys for the collection of the data used for a comparative review of the impact of resource management and related policy on two otherwise geopolitically varied mining communities. The analysis of the economic and social implications of changes in the processes and outcomes of policy development process in the resources sector focused on two mining communities, Timmins, Ontario and the Zambian Copperbelt, both involved in the exploration, extraction, processing and export of copper ore between 1979 and 1999. The research also sought to document the material implications of the policy changes occurring within what it concluded was an emerging 'top down' liberal global economic order and the 'bottom up' ferment of resistance they engendered against capitalist accumulation on a global scale. The choice of geographically bounded communities with geopolitically varied economies was useful in assessing the existence of common features of a 'global' economic order as experienced by citizens of diverse mining communities in the global North and global South.

Utilizing hegemony as a conceptual framework, the study sought to determine the extent to which key events in these local communities were over-determined by an emerging globalized economic order during the period 1979-1999. Further, it sought to explore the character of the 'transition', looking at how notions of economic restructuring on a global scale became increasingly dominant and the implications for the organization of work, and socio-economic relations in the communities. Lastly, it sought to understand how these developments impacted key relations in the communities - between the state and capital, labour and civil society, capital and labour, transnational mining corporations and communities, and the responses to these changing relations from below – the practices and the discourses the subordinate social classes were engaged in.

The study focused on the extent of convergence in national and sub-national natural resource policy and related policy regimes, common features in production processes and related labour processes, similarities in socio-economic conditions between the two locations, concentration of ownership on a global scale and the implications of these with regard to the emergence of global economic order, as an enabler or outcome.

The project encountered a number of limitations leading to revisions in the research schedule. These included difficulty to acquire timely access to key informants and documents, sustaining key elements of the comparative framework for the analysis, the investigator's personal loss (of a close family member) and the investigator acquiring new employment – a full time appointment at an Academic institution.

Background - Parallels between North/South mining economies and capitalist development in the late C20th

This research was motivated by an interest in the conditions of resource dependency in spatially bounded communities in an era in which capital mobility increasingly defines the imperative of the economies of nations. Within mining communities, which are largely extraction and primary producers, this concern is also overlaid by the contemporary emphasis on knowledge based production, and the resort to new materials as substitutes. Historically, Copper mining industries have contributed substantially to the development of human society and to the economic sustenance of local communities. However, in the last twenty years, the industry's long term prospects have become increasingly suspect and its return to investment less assured. Moreover, in its wake, it often leaves a legacy of abandoned communities, orphaned work sites and environmental and social destruction. So, while mining communities owe their existence to the ore, they are often saddled with social and environmental liabilities with little support from the state or the mining company to address them. In most cases, the mining community and the environment, and to some extent the national and local governments bear the brunt of the business decisions made by transnational mining companies especially when they involve sudden departures with seemingly little or no regard for the communities left behind. Rarely are there policy instruments or industry rules that effectively address these liabilities.¹ Increasingly in a changing global natural resource policy environment, policy development has tended to facilitate, not ameliorate, the process of abandonment.

During the late twentieth century, the experience of Copper mining communities came to symbolize the historical patterns of capitalist development. Data show a situation similar to the characterizations of the operations of transnational capital in a liberalized global environment in narratives of international political economy literature. According to such narratives, capitalist expansion is uneven, putting the onus largely on the state, local community and labour to deal with the impacts. There is limited or no assurances of a partnership with transnational capital that would ensure the risks are shared.² The notion that transnational corporations are great externalizers of mining risk and liability is heightened in an environment where transnational capital can exercise structural power by bringing various countries and proletariats into competition, enhancing its bargaining position in the process. Such is the precarious environment many mining communities find themselves in as mineral production becomes increasingly globalized. It was the nature of capitalist development in the late twentieth century, that these conditions of precariousness under which the mining communities operated have become generalized across the rest of the economies of nations in the global North and South. For the mining communities, any benefits of further incorporation into the global economy flowed unevenly, disproportionately to local and global capital, and often at the expense of the workers and local communities who bore the brunt of this mode of development.

¹Mining Dialogue Backgrounder 1: From Challenges/Issues to Actions, Mining, Minerals and Sustainable Development (MMSD) North America, September 2001

² Gill, 1995; Mittelman, 1997; Castells, 1997; Sklair, 1998.; Barnet & Cavanagh, 1994; Boyer & Drache, 1996; Hirst & Graham, 1996; Harvey, 1989

This comparative study of two mineral producing communities in the North (Timmins, Ontario) and South (Zambian Copperbelt, Southern Africa) speaks to these concerns and provides some insight into the conduct of transnational capital in an unfettered economic environment in the late twentieth century and some foresight into the nature of capitalist relations likely to emerge in the twenty-first century, given capital's evolving relationship with the communities and the state. Mining communities are employed as proxy for other spatially bonded communities dealing with the impacts of the processes of globalization of production symptomatic of a global liberal economic order 'under construction'. Their experiences provide an opportunity to draw some broad conclusions about the mode of economic regulation and regime of capital accumulation emerging. We seek to answer the questions: Are the conditions of operation for capital in the late twentieth century similar in the North and the South? Do they impact geographically varied communities similarly? What do they tell us about the general condition of capitalist development in the late twentieth century? What are the implications for local development? What broad or general statements can we draw from these observations?

Research Project goals

The overarching goal of the research project was to collect data for an analysis of the changing fortunes of select local mining communities and the conditions under which they sought to ensure sustainable development and work arrangements, negotiate new relationships with the state and mining companies, within the context of an emerging liberal economic order. How do these relationships help facilitate or resist the conditions imposed by capital in the last two decades of the twentieth century? The research project used a variety of research methodology and techniques to document and analyze the implications of the changes on the mining community and to engage the broader question of the sustainability of the industry and the communities.

The following goals informed the research project:

1. To do a comparative review of mining policy in Zambia and Canada. This was accomplished by analyzing quantitative and qualitative data from primary and secondary sources on the impact of the changes in the Zambian and Canadian mining sector and select dependent communities in the late twentieth Century.
2. To undertake a quantitative analysis of the changes in mining and related policies, using archival research, analysis of primary and secondary sources, so as to locate the nature of changes in the industry over the last two decades of the C20th and to assess the implications for local mining communities
3. To undertake a qualitative analysis of the impact of the policy changes, using direct industry and community surveys, interviews and focus groups, to better understand the conditions and events brought about by the changes, and what opportunities they present for the future the industry and communities. An effort was made to give voice to the opinions, words and actions of the various key stakeholders or groups of interest in the mining communities.

4. To demonstrable the relevance and benefit of the research to local communities including key social groups such as mining company management, mine-workers' unions, civic leaders, farmers, informal workers, community based organizations and local business people. Supplementary case studies were undertaken for the direct benefit of the communities.
5. To provide some employment to local research assistants, consultants, interpreters, as well as provide collaboration with local community activists, researchers and consultants dealing with the challenges of economic transition
6. Finally, the research project sought to address a systemic problem in the nature of the participation of the local mining communities in the global economy in the post nationalist development era so as to consider questions of how they can break the cycle of dependency and exploitation that increasingly defines the relationship of resource economies with the global economy, and prevents them from accumulating local capital for endogenous development. This became the focus of the analysis emerging out of the project that is yet to be completed.

Research methodology

The research project methodology reflected the research goals as outlined above. Drawing on the Gramscian concept of hegemony and the regulation school framework, the study advanced the proposition that the conditions of geopolitically varied mineral dependent communities were increasingly similar because they were determined by a global hegemonic social-institutional order in the late twentieth century. To test the proposition that diverse mining communities operated under similar conditions in the late twentieth century and that the conditions under which the communities operated were externally determined, while the key events and the outcomes emerge out of a common, and global socio-institutional structure which signals a changing economic order, the study used a comparative analysis of the experiences of the communities using case studies of two geopolitically diverse copper mining communities, in the global North (Timmins, Ontario) and the global South (Zambian Copperbelt, Southern Africa).

The study employed both qualitative and quantitative methodology and a variety of techniques, including case studies, targeted random surveys, key informant interviews, group forums/sessions (focus groups). The study also used primary and secondary data analysis for the comparative review of changes in the resource management and related policies. The choice of technique and methodological emphasis varied depending on the constraints encountered. The major case studies of the Kidd Creek mining community and the Zambian Copperbelt communities were supplemented by smaller sub-studies: (a) Kidd Creek mining community looking at the nationalization and denationalization of the Kidd Creek Copper Mines, and a sub study focusing on the activities of the Northern Ontario community organization Save Our North in the Global North; (b) Zambian Copperbelt, analyzing the privatization of the Zambian Consolidated Copper mines on Kitwe, Luanshya, Chambishi and Chingola, and sub-studies looking at the

commercialization of the Water and Sewerage delivery system on the Zambian Copperbelt; the socio-economic impact of the First Quantum Minerals owned Bwana Mkubwa Mines Ltd discharge of toxic effluent on the Mukulungwe Block Farmers; the legal challenge of Anglo American Corporation by the Citizens for a Better Environment.

Aside from comparing mining and related policies, the study also sought to explore the character of any emerging order that would comprise a distinctive policy regime, by looking at how notions of economic restructuring on a global scale became increasingly dominant and were justified – to the point that they came to represent a new ‘common sense’ mode of economic organization and convergence in the socio-economic conditions among miners in these communities. Specific focus was put on analyzing the enabling policy environment that facilitated the change from active state participation in the sector and the effects of denationalization (or privatization) of Copper mines at Kidd Creek in Timmins and Zambian Consolidated Copper Mines (ZCCM) in the Zambian Copperbelt focusing on the Luanshya, Kitwe, Chambishi and the Chingola mining communities. The quantitative data collection and analysis went beyond the convergence in national and sub-national policy regimes and policy development processes, to consider:

- the privatized nature of and concentration in ownership of mining operations on a global scale;
- convergence in the production processes and similarities in the deployment of labour,
- rationalization in production on a global scale,
- the socio-economic conditions in the two locations.

The study analyzed the socio-economic conditions (using levels of income, unemployment and social inequality) of mineworkers directly affected by the changes in the organization of work whether through the introduction of precarious forms of employment or through downsizing (lay-offs/retrenchment) and their struggles to acquire reasonable levels of compensation and subsistence, the capacity of retrenched families’ to meet nutritional needs, and ultimately the forms of social organization they adopt as part of the strategy of survival. The qualitative component considered the relationship between the mine-owners and mineworkers, the nature of the assistance provided to former mineworkers by new owners and/or the state, their families’ perceptions of their current conditions, the attitudes of the new mine owners and managers to these social issues, the impact of the changes on male labour demand, the impact on the gender division of labour in the communities and, overall, the impact of denationalization on the socio-economic conditions, employment, societal-state relations and on the environment.

The qualitative component also focused on the extent to which the emerging economic order defined the social relations in the communities and the relations of power between the state and key social groups, capital and labour, as well as relations between capital and communities, the state and civil society, and the role of key institutions such as transnational corporations. Finally, it sought to document and analyze some of the responses to these events from below – the practices and the discourses of the

communities arising out of and in response to the uneven and contradictory processes in question.

Comparison of Canadian and Zambian Case Studies

Political:

Resource industries historically anchored both the Canadian and Zambian economies, providing a platform for the industrial development and urbanization of the countries, and helping define the character of both countries. But during the period of study, the globalization of production, liberalization of investment policies, cost competitive strategies, heightened attention to public debt and deficits, increased articulation of environmental concerns and a growing dominance of knowledge-based conceptions of economic development, in a generalized way, combined to diminish the resource communities claim to state action to mediate the impact of instability in the global market.

Mining continued to play an important role in both the Canadian and Zambian economy but remained more critical to the Zambian economy than the Canadian one. Because of its historical importance to the economies, it was the subject of state attention by way of public investment, regulation, protection and in the case of Zambia, nationalization. Moreover, when the mining industry was responsible for massive environmental destruction, it was largely shielded from the full impact of these liabilities, while the state and communities bore the brunt of the destruction.

From a policy standpoint, Canada and Zambia responded variously to the shifts in the strategic importance of the mining sector to the economy. The Zambian state's strategic response was to increase its involvement in the mining industry, while in Canada, the industry remained largely private, with periodic government investment and outright ownership of some assets, preferring instead to ensure the public interest through regulation.

Canada as a liberal democracy with a fairly well developed welfare state although in transition, and enjoyed a high degree of political and economic stability. Zambia emerged from a one party regime during the period of study and its current regime still shows signs of authoritarian hangover. It came under the debt management regime of the International Monetary Fund and the World Bank and is subject to tight fiscal discipline under the HIPC program for the purposes of debt relief and economic structural adjustment.

Both countries were subject to emerging notions of development on a global scale defined by the concept of competitive austerity, which brought them into competition in the relevant mining sector. These notions impacted the organization of work as well as the claims that citizens, social groups and communities make against the state and other institutions in their societies.

Economic:

Historically both the Canadian and Zambian economies have relied on natural resources as a back-bone and so have long mining traditions, including shared traditions in Copper mining. Both Canada and Zambia used the mining sector as a platform for broader industrial development. However, during the period of study, mining's contribution to the Canadian economy declined, a continuation of a trend in the second half of the twentieth century. Contribution to GDP declined to 4 % and mining products represented 14% of Canadian exports by the end of the period. While relative value declined, the per capita value of mineral production rose from \$1097.25 (1979) to \$1462.49 (1998). Within the mineral and metals sector, Copper remained one of the five leading export earners with \$2,385 million in 1998. On the other hand, Zambia's mining industry, dominated by copper mining, until recently contributed over 35% of the country's GDP. Zambia's Copper mining industry contributed close to 90% of its foreign currency earnings

However, while Canada ranked third in copper production in the world behind Chile and the United States of America (accounting for 5.8% of global production) and is now the world's most dominant mining venture capital source and a major financier of mining exploration world wide, boasting headquarters of significant transnational mining corporations with holdings spread around the world, including Africa, Copper production from the Zambian industry declined significantly during the period under study, from a high of over 700,000 tonnes to a low of 275,000 tonnes in 1999. Zambia is a net recipient of mining FDI and a recipient of some of Canada's financing of exploration and mining, along with Canadian ownership of Zambian mining operations. This may be attributable to the fact that the Canadian economy is a G8 economy

Both countries at various times sought to bring the Copper mining industry under various forms of state control, with high levels of regulation and selective nationalization of assets for Canada while the Zambian government nationalized all the mining assets in the early 1970s and consolidated them in the early 1980s.

Canada has a longer tradition of private ownership of mining operations and the discipline of the market in the sector, while the more recent de-nationalizations represent a significant departure for Zambia and its mining management and workforces.

Deregulation and denationalization

The later part of the period of study can be characterized as the post-nationalization, post-regulation phase, in which mining industries in both countries have been subject to ownership consolidation and global rationalization of production, convergence in the policy framework and creating conditions of production and deteriorating socio-economic conditions in the communities that

are relatively similar, despite varied political economies. The debt crisis in the global South and a growing public debt and deficit financing consciousness in the global North became appropriate platforms for new definitions of public/private spheres, as proponents of the neo-liberal project successfully advocated for deep socio-economic restructuring in both Canada and Zambia.

The focus of state economic planning functions shifted to prioritizing inflation control and the restoration of value to capital stock over expansion of production and employment. The tendency was to force labour costs down while diminishing welfare state social protection so as to increase capital's share of surplus value on the one hand. On the other, capital intensive production and increased productivity through technological innovation, destruction of labour value, heightening work speed-ups and intensifying work schedules began to define the emerging organization of work and production. There were marked shifts from standard labour processes to flexible ones, from manufacturing production to mostly non-unionized service sector and the informal sector in the mineral dependent communities. The expansion of the informalization of the economy, in the South and casualization of work in the North, emerged to account for some of the excess labour – which increasingly became a form reserve army of labour.

Both local communities are subject to conditions of precariousness as mineral prices continue to decline as a result of the rationalization of production on a global scale which has led to the inclusion of third world production in the global market, and the increased use of substitute materials. Mining transnational companies have managed to hold labour costs down by bringing labour across the North/South divide into competition. Flexible labour deployment shows the effects of disciplinary neo-liberalism

Mining, mineral and related Policy

The period of study saw significant convergence in national and sub-national policies related to mining and mineral activities. Mineral policy has focused on encouraging exploration and the development of new asset, the distribution of the wealth generated and the risks and costs associated with mineral production. These issues relate both to the ownership of the means of production as well as the regulation of the activities involved in exploration, extraction, processing and marketing of mineral products.

In that regard, the period under study was a dynamic one for mineral policy, tax policy, investment and ownership policy, environmental policy, and labour policy. With the industry experiencing turbulence in the last two decades of the twentieth century, major shifts occurred in the policy environment both to facilitate and to signal the major changes in the industry and the society as a whole. They also reflected new conceptions of development, economic organization and claims made by various social groups.

Much of the mineral policy development during the period of study reflected the broader processes of globalization and liberalization of the economies in both countries. Mineral policy convergence signaled a shift towards global scale market considerations even as it facilitated that shift away from national considerations. Social agents whose interests represented that shift became more influential in the policy development process and their interests became increasingly generalized at the local, national and global levels. The period saw a shift from international attempts to organize a copper production cartel led by national governments in the early 1980s (CIPEC), to the emergence of an industry led mining policy initiative aimed at consolidating liberalized policy environment at the global level (MMSD). The process of generalizing the interests of powerful groups was reflected in the emergency of the notion of consensus-based decision making, which collapses the varied interests of mining's multi stakeholders into a single pool of industry interests. The emergence of generic mining codes which incorporated common objectives of liberalization and privileged private ownership of the means of production while minimizing the rent seeking claims of communities was another indicator of the new policy shift. Needless to say, the Canadian state became an ally of the transnational mining companies in facilitating the adaptation of these generic liberal mining codes in debt dependent countries in the global South.

In Canada, an industry in decline demanded less regulation, a lower tax burden and more state support for exploration to ensure that it remained globally competitive. Coinciding with the MacDonald Commission's report on the overhaul of the Canadian economic policy and increasing demands for deregulation of the economy to spur global competitiveness and shifts in labour/capital ratio aimed at improving productivity, constraints on investment and ownership represented by the Foreign Investment Review Agency (FIRA) were discarded while tax cuts and tax shelters were enacted at the federal and provincial levels to support exploration and new capital investment. Labour regulations were relaxed to increase flexibility in labour deployment. However, emerging concerns about environmental damage caused by mining led to new forms of regulation in environmental protection.

Zambia's experience, while distinctive because of its colonial history, was not very different in the end. The mineral policy regime fell into line through debt conditionality and the force abandonment of the Zambianization experiment through which the Zambian copper mines were nationalized and consolidated under the Zambian Consolidated Copper Mines. Faced with a transition towards a market centred economy, a long list of new pieces of legislation were enacted to create an environment conducive for foreign investment and transnational ownership and control of the mining industry. Legislation such as the Zambia Investment Act and the Zambia Privatization Act, were created along with liberal reforms in the mining and minerals legislation, labour laws, Companies Act, Financial legislation and taxation and royalties regimes to facilitate the shift to a new globally competitive economic environment.

Historical and geographic

Both Canada and Zambia are naturally endowed with mineral deposits and geological formations that have historically attracted interest in the development of mining as a foundational economic activity. While Canada has a multitude of different mineral deposit types, from gold to silver, uranium, copper, zinc, Nickel, distributed across the northern part of its landmass, Zambia's mineral riches, largely concentrated in the Copperbelt and include copper, cobalt, as well as various deposits precious stones such as emeralds. This profile reflects its historic overdependence on Copper mining and processing although an increase in the recent discovery of significant deposits of emeralds in other parts of the country, have spurred a number of small mining operations. The rich geological formations has attracted both the capital and expertise that have subsequently taken root in the two country. Both Canada and Zambia maintained relatively strong mineral production even as the resource-based economies suffered some decline over the period of time under study. Both countries had world ranked copper mining and processing industries.

Copper is one of the oldest metals used by societies and a major contributor to the development of human civilization. Because of its properties: high conductivity, malleability, resistance to corrosion, it ranks only third behind iron and aluminum in terms of global industrial consumption of metals. For a long time, it was unchallenged as the source for house wiring and underground cables especially during the post war economic expansion period. More recently the rise in demand has coincided with the economic growth in the emerging economies of Asia and Latin America.

Copper has numerous applications. While principally Industrial - building construction, power generation and transmission, telecommunication, aircraft parts, automotive parts; it also has widespread commercial use - coins, jewellery, musical instruments, cookware, artwork, crafts, furniture. However, copper has also become vulnerable to various substitutes, such as fibre optics in telecommunications industry.

Copper production in Canada and Zambia traces its origins to the portfolio and direct investment of British financial and American industrial capitalist interests. While in the case of Canada much of the prospecting, exploration and development of the mines was dominated by American multinational mining companies, expertise gained in the Canadian industry was often exported to British colonial territories such as the then Northern Rhodesia. Indeed one of the oldest mining communities in Zambia was named after a Canadian mine developer, and bore his name Bancroft, until the period of Zambianization after independence. The parallels are steeped in the history of a common colonial experience, membership in the Commonwealth, and common interest as countries with a disproportionate dependence on natural resource extraction, which once identified mining as representing a competitive advantage for their economies.

Labour

During the last twenty years of the twentieth century, as the importance of mining declined in the global economy, lay-offs and mine closures became a dominant feature of the industry. Reductions in the labour force have been dramatic as have the decline in working conditions. In both Canada and Zambia, the restructuring in production, with an emphasis on mechanization and capital intensification led to new forms of workplace organization that privileged high tech skills, task flexibility and some degree of cooperation in the pits and processing plants. The labourforce in Canadian mining declined from 91,787 in 1982 to 59,555 in 1998, while the basic metal sector employment fell from 58,960 in 1979 to 30,680 in 1998. In the Copper, Nickel, Zinc, sector, the decline was more precipitous, from 25,116 in 1978 to 12,513 in 1998. In the Zambian mining sector, the decline was equally precipitous, from 45,000 in 1979, rising to a high of 62,000 in 1990 and declining to 25,000 by 1999. The labour relations regime was also restructured as more individual contracts became more prevalent and demands for greater flexibility blurred job demarcations and increased levels of casualization in the industry. The increased resort to short term contracts and other forms of casualization undermined labour's ability to organize and demand action by governments or compel solidarity for its members.

In the case of miners on the Zambian Copperbelt, by 1998 workforce retrenchment diminished the Konkola Copper mines to (11,000 workers, Nkana Mines 8,000 and Luanshya, 4,000). Weak leadership led to threats by branches of Mineworker Union of Zambia to disaffiliate from the union and the eventual emergence of a new miners and mining industrial workers union. At Kidd Creek, despite unionization during the study period, successive job losses diminished the ranks of union membership to a low of 1,517 by 1998 (Kidd Creek still remained the largest single employer in Timmins) but also led to the emergence of a privileged, more job secure core part of a transnational knowledge based, technical or professional, managerial stratum of workers, mobilised by capital to enhance productivity and efficiency.

In both places, this was juxtaposed against the ever-growing conditions of low job security, declining real wages, high mobility, contract work, widespread self-employment and small businesses phenomenon that increasingly characterized most mining workers and the growth of a segment of displaced workers with low skills or impaired access to employment, low wages, part time jobs, unemployed and underemployed, displaced and disempowered, many peripherized into the informal sector. These developments clearly depart from the dominant features of fordist relations of production and social relations that obtained in the period before the late 1970s. They represent a redefinition of the labourforce into three distinctive groups – the more secure knowledge based group; the less secure semi-skilled miners and metallurgical workers and highly insecure casualized labour. It also raises questions about notions of class consciousness and identity formation.

Environment

Increased demands for the industry to adopt environmentally benign processes of extraction and production, from environmental groups, Aboriginal communities and the general public imposed expectations for the industry to limit forms of production that exacerbated the environmental degradation it had been guilty of for decades. The increased attention to environmental impacts of mining was reflected in the fact that it was addressed in the industry led Whitehorse Mining Initiative in the Canadian context as well as in the formation of the Mining, Minerals and Sustainable Development Project on the global level.

In Zambia, new environmental legislation was enacted which for the first time held the industry accountable for both the historical environmental liabilities as well as the continuing pollution of the air and water in the Copperbelt. New regulations were also passed that forced private owners of mines to conform to strict standards of environmental safety and to prepare environmental management plans for approval by the state authorities.

Corporate culture (ownership):

The corporate culture in mining in Canada and Zambia evolved during the late two decades of the twentieth century. While Zambia began under state control, it evolved to near full privatization, reflecting a global shift away from state owned production in the industry towards greater privatization and transnational corporation ownership (Chile's Codelco, the largest Copper producer in the world, was another previously state owned enterprise that has been commercialized). On the other hand, the Canadian industry while mostly private, with a combination of American and Canadian junior and senior firms, experience a high level of regulation at the beginning which declined substantially by the end of the period. Kidd Creek Mine was one of the few assets run by a Canadian crown corporation, the Canadian Development Corporation (CDC), having acquired it from the French company, Elf-Aquitaine. It subsequently passed back into the private sector when it was acquired by Falconbridge, now a division of Noranda mines.

There is some debate as to whether defining a mining company by its head office or country of origin has merit in one of the world's most dispersed of industries. In that respect, Canada's role is unique in that it was once a net recipient of international mining foreign direct investment. However, the attributes that made Canada attractive to international mining companies are being challenged by other global contenders, and also by changing attitudes both among the Canadian public and state. Moreover, Canada has increasingly become a net exporter of mining FDI. Between 1992 and 1998, the number of mineral properties held in Africa by companies of all sizes listed on Canadian stock exchanges grew by an average annual rate of over 50%. Canada's dual role as a host for mining transnational and a base for mining transnational corporations involved in capitalist expansion in

places like Africa has led to a fork-tongued approach to resource mining policy, especially when it comes to defending the interests of local mining communities.

The changing ownership structure has facilitated global rationalization in ability to represent the local community interest as well as the national interest in the management of the resources. However, as an important aspect of emerging order, there has been an emphasis on multi-stake holder resource management (consensus-based decision making) with diverse interests represented at the table. Yet the unequal relations of power between the mining companies and communities this has translated into industry management dominating the agenda and their interests generalized to define local and national interests. An on-going debate related to the extent to which consultation, a preferred form of industry solicitation of input from multi stake holder represents an appropriate involvement in decision making. In both the Zambian and Canadian case studies, it seems clear that non-industry partners don't think so.

Community Response

The mining communities were ground zero for the shifts in the mining economy and were subjected to the processes of global restructuring during the period of study. While some engaged in processes of resistance, others became the subjects of co-optation, as they sought coping strategies aimed at securing their way of life and livelihood as well as asserting local autonomy, sustainable economy and social meaning. These activities generated a variety of practices and discourses that reflect that engagement.

The eventual outcomes of these processes of resistance and co-optation cannot be pre-determined, given their on-going nature. However, they represent attempts to respond to the forces of globalization 'from below' by various agencies in perhaps fragmentary and contradictory expressions, and represent the materialization of the notion of *globalization from below*.

In Canada, the experience of the Timmins mining community is partly represented by the activities of the Save Our North organization, a non-governmental local organization that emerged with the support of the mining industry and the participation of the local government officials, the Timmins business sector and to some extent labour, to demand for legislative and program changes to free the mining industry from regulation so that it could compete globally. It lent legitimacy to the demands of the industry, which were generalized through the process of the SON 'popular' mobilization.

On the other hand, in Zambia, while formations similar in purpose arose, mostly involving local commercial interests, independent Contractors and Suppliers to the mining companies, and in some cases service delivery community based organizations funded by NGOs from the global North, much of the response was in resistance to the re-organization of production on a global scale and the

divestment of state role in mining, especially because it represented a loss of claim by the community to mining rents and social protection. Community based organizations such as Citizens for Better Environment (CBE), the Luana Farmers Cooperative Alliance, and popular various mobilizations in places such as Luanshya, represented a sometimes militant response to the economic and social reordering of the Zambian Copperbelt. By the end of the period of study, not only had new labour formations emerged to challenge the more established ones, considered complicit in the transition, but previous members of the alliance for liberal transition had begun to shift their positions as the legitimacy of the neo-liberal project came under pressure and new alliances were forming to demand for more sustainable forms of local development.

Key Findings

- The report's findings suggest a significant degree of geographical and organizational integration in the mining production, processing and marketing of copper. The data suggest the emergence of an integrated international production system in copper industry; a shift from stand alone strategies to both simple integration and complex integration strategies (with globally integrated production and distribution networks).
- The period saw a global convergence of natural resource policy in the form of liberal mining codes and related state policies, such as taxation, trade all of which have served to facilitate the process of global rationalization of production and a global process of investment and accumulation. This convergence also reflected a shift from high level of state involvement in the industry represented by nationalization in Zambia, significant regulation and investment in Canada, to denationalization and divestment respectively.
- During the period, there was a further entrenchment of the global concentration of ownership in the copper mining industry. The intensification of transnational concentration in mining industry ownership in turn facilitated the global rationalization of production, mechanization and capital intensification, the introduction of electronic-based automation as a means of increasing productivity and the introduction of new products and shifts in production processes from site to site.
- The rationalization in production led to the introduction of such new characteristics in the labour process and production process as flexible labour deployment and higher capital/labour ratio, standardization of labour processes, culminating in intensified job insecurity and periods of high job loss. But it also improved the prospects of some of the workers, especially in the Timmins case where the importation of mixed feed and concentrate for processing at the Kidd Metallurgical plant saved some jobs. It also improved competitiveness and efficiency.
- The loss of national or workplace control undermined labour power and became a conduit for disciplining labour and the local communities, constraining their claims against capital and the state and enhancing capital's ability to maintain its rate of profit and accumulation.

- The role of the state as the investor of last resort changed and while resource industries historically anchored both the Canadian and Zambian economies, the globalization of production, liberalization of investment policies, cost competitive strategies, heightened attention to public debt and deficits, increased articulation of environmental concerns and a growing dominance of knowledge-based conceptions of economic development, in a generalized way, combined to diminish the claims of mining communities to state action to mediate the impact of instability in the global market, either through investment subsidies, tax shelters or direct transfers.
- There was also a shift in the mode of resource policy development away from the state brokerage of the interests of labour, capital and the local and national communities towards a diffusion of accountability and multiple stakeholder consensus based decision making at the local, national and international level, a process which more often than not tended to generalize the interests of capital as those of the nation, labour and local communities.
- There was a North/South convergence of patterns of uneven socio-economic development and conditions of socio-inequality, unemployment and poverty in local mining communities, pointing to the shared experience of globalization.
- Ultimately, there was an emergence of modes of resistance to the new order. These resistances tended to seize on the contradictions that emerge in the processes of change discussed above. For instance, they centred around the public relations undertakings of transnational mining companies used to validate corporate commitment to the local and national communities as part of the new era of multi-stakeholder non-conflictual convergence of interests that often translated the interests of capital into national and local interests. Claims of corporate citizenship are used to pressure transnational capital and states to deal with the local socio-economic crises as well as environmental impacts of unfettered, unbridled accumulation. These include the actions of Citizens for a Better Environment (CBE) who launched law suits against Anglo American Corporation, First Quantum Minerals in the Zambian Copperbelt and the activities of Save our North in Timmins, (SON)Ontario.
- These modes of resistance generate counter-hegemonic discourses, practices and a counter economic logic, seeking the creation of conditions that would restore sustainable economic organization and in so doing undermine the capacity of the new economic order to maintain the global direction of local economies through the single market price and unified global exchange value. Because the objective conditions created by the transition so contrast with the promise of the neo-liberal project as presented to local communities, these modes of resistance challenge the **legitimacy** of the project and its attempts to naturalized market regulation bump up against the discordant deteriorating material conditions of local communities.

Some final conclusions

The study concluded that winners and losers are not always as easy to discern since some workers do benefit from the changes while the interests of some local capitalists decline leading then to act in opposition to the consolidation of the liberal order. However,

generally the income and economic status of mineworkers and their communities declined, with most losing their jobs through the process of the global rationalization of the industry while those retained enjoyed a degree of job security and increased compensation. The broader implications were increased inequality within local communities and between global and local interests. For most mine workers, the declining income status arose out of a heightened exploitation made possible by flexible deployment of labour and changes in labour management and a capital/labour ratio that diminished their control of production processes.

So the restructuring taking place in production led to the emergence of a small privileged, transnational knowledge based, technical or professional, managerial and entrepreneurial stratum of workers, tasked by capital to enhance productivity and efficiency. This 'group of winners' was juxtaposed against the ever-growing conditions of low job security, declining real wages, high mobility, contract work, for most other miners and widespread self-employment and small businesses phenomenon that increasingly characterized the segment of displaced workers with low skills or impaired access to other employment, low wages, part time jobs, unemployed and underemployed, displaced and disempowered, many peripherized into the informal sector. These were developments that clearly depart from the dominant features of fordist relations of production and social relations that obtained before the late twentieth century.

With regard to the fortunes of the local economies, the new forms of organization of work and production meant that the capital generated was not retained in the local economies through consumption, but is siphoned off into the global economy. At the sub-national and national level, this process of capital drain is augmented by the global management of credit and the debt by the international financial institutions which also maintain a flow of capital out of the subordinate communities. In response, the communities sought to activate local productive factors in order to generate endogenous development and to immunize the local economy from the drain in its urban centred and international forms.

Confronted with an uneven relationship with a dominant global capitalism and unequal industrial and trade relations, it is arguable that maintaining an export oriented economy simply reproduces that dominance and the relations of inequality. Breaking the cord represent one way to stop or slow the drain of the surplus generated in the local economy and transferred from these local economies that have become peripheral to the increasingly high tech, knowledge based global economy. But can it ensure the generation of adequate fixed capital for endogenous development? Is there an alternative way the relationship can be renegotiated to ensure local benefit? These questions remain unanswered by the research.

In total, though, these findings suggest a marked shift from a liberal-nationalist order towards a liberal market order during the last two decades of the twentieth century, but one that is still contested and whose shape is yet to fully emerge.

Limitations

Comparative nature of research project

The research project was conceived as a comparative analysis of the experiences of two mining communities, one in Canada and another in Zambia. However, there were significant limitations to maintaining the comparative framework. Unforeseen limitations related to such issues as scale, sample sizes for surveys, ready availability of comparable key informants for interviews, and availability of informants with relevant information given the timeframe under study.

Integrated nature of Zambian industry

Originally the research was set up to compare the Kidd Creek mine community in Timmins and the Nkana mine community in Kitwe but the Zambian Copperbelt mining industry is highly integrated with common management structure and hegemonic dominance of ZCCM of the industry and the community, common social service delivery. The privatization debate in the 1990s (bundling and unbundling) reflected the challenge of trying to divorce the impact of the economic changes on Nkana mine from the rest of the Copperbelt and made a change in approach necessary. A decision was made to broaden the focus to three mines/mining communities, Nkana mine (Kitwe), RAMCOZ mine (Luanshya) and Konkola Mine (Chingola township) as representative of the Zambian Copperbelt. This though added to the challenge of data collection and analysis.

Divergent political economies and the challenge of comparison

The diversity of political economies also posed a challenge in evaluating the socio-economic impact and the nature of survival strategies. While Zambia's National Social Safety Network (NSSN) is still very much under construction, Canada has a fairly well developed welfare state system which alleviated some of the pressure to resort to basic survival strategies on the miners in Timmins. This made the comparison in terms of survival strategies difficult to sustain and present very varied options to the two communities. This reality suggested the need for separate evaluation of the impact of the socio-economic crises and the responses.

Access to sources and documentation and Limited time at sites

The project encountered uneven access to documentation and the limited timeframe at some sites led to an over-reliance on qualitative data collection in the Zambian case study while the reverse was the case in the Ontario case study where there was limited qualitative data collection and mostly an over reliance on quantitative sources. The impact was to skew the comparison element to a significant degree.

Inability to return to sites

The inability to return to sites to follow up on new questions raised by previous findings both hampered the research and led to a high cost approach to ensure that the limited time was employed most efficiently.

Personal tragedy

The investigator lost his father, leading to abandoning plans for the research and traveling overseas to deal with the funeral, the estate and related challenges. Both the loss of the only surviving parent and the demands of managing the estate of the deceased took their toll and slowed down progress on the project

Professional advancement

The investigator acquired new full time employment which require significant preparation and also limited time to make timely progress on the project. Aside from slowing down progress, it also limited periods of stay at sites and made setting up interviews and sustained archival work difficult.

Remedy

While many of these limitations impacted the research, the project was able to overcome some of them through adjustments to the framework and using alternate techniques to compensate for the gaps and weaknesses identified.

Research Activities Report

Zambia (January 2002 – May 2002)

Archival and documentary research was conducted in the following sites

- Central Statistical Office
- University of Zambia archives (Special Collections)
- Institute of Economic and Social Research Documentation Centre
- Zambia Consolidated Copper Mines archives
- Zambia Consolidated Copper Mines – Investment Holdings archives
- Zambia Privatization Agency archives
- Government of Republic of Zambia (GRZ) Mine Safety Department
- GRZ Ministry of Minerals and Mines, Mining Development Department
- GRZ Ministry of Finance
- GRZ Ministry of Labour and Social Security
- GRZ Ministry of Legal Affairs
- GRZ Ministry of Commerce, Trade and Industry
- Zambia Investment Agency
- Zambia Industrial Relations Court
- Zambia Social Investment Fund Library
- Environmental Council of Zambia
- COMESA Library
- Mopani Copper Mines Environmental Management Plan Office
- Konkola Copper Mines Environmental Management Plan Office
- Bwana Mkubwa Mines Ltd Environmental Management Plan Office

Key informant interviews were conducted with the following officials:

Mining Houses

- Mr. Ben Chileshe, Vice-President, Konkola Copper Mines (KCM)
- Mr. Emmanuel Mutati, Vice President, Mopani Copper mines
- Mr. Bright Tembo, Chief Financial Officer, Mopani Copper mines
- Alex Mpishi, Mopani Copper Mines Environmental Officer
- Mr. Kasande, Production Controller, KCM; former Assistant Superintendent, ZCCM
- Ed Munik, Chief Operating Officer, Chambishi Metals
- Mr. Andreis Scott, Bwana Mkubwa Mines Ltd
- Mr. Hepburn, President, Metorex Mines Ltd.
- Mr. Ndlovu, Metorex Mines Ltd
- Anglo-American Corporation (Zambia Copper Investments)

Labour movement officials

- Joyce Nonde – Federation of Free Trade Unions of Zambia
- Mr. Mkandawire, Deputy general Secretary, Zambia Congress of Trade Unions
- Mr. Tembo, General Secretary, Zambia Congress of Trade Unions
- Andrew Mwanza, President, Mineworkers Union of Zambia
- Ernest Mutale, General Secretary, Mineworkers Union of Zambia
- Mr. Charles Muchimba, Director of research, Mineworkers Union of Zambia
- Peter Daka, Chairperson, MUZ Roan main and Mpatamatu Branch
- Mr. Mabvuto Gondwe, Director, Occupational health and Safety, MUZ
- Leonard Hikaumba, President, Civil Servants Employees Union
- Chisanga Simukoko, Branch Secretary, MUZ, Scaw Ltd
- Mrs. Sewale, CIPEC

Government of the Republic of Zambia Officials

- Sylvester Mpishi, Permanent Secretary, Minerals and Mining
- Ngosa Chisupa, Director, Zambian National Social Safety Net Office
- Mr. Nelson Nyangu, Gender in Development Division (Cabinet Office)
- Robert Banda, Zambian Privatization Agency, Post-Privatization
- Elizabeth Zere, Zambia Privatization Agency
- Mrs. Nkaka, Environmental Council of Zambia
- Mr. Nsongole, Environmental Council of Zambia
- Mr. Ali Simwinga, Town Clerk, City of Kitwe
- Mrs. Mwanza, Kitwe Municipal council
- T.C. Chanda, Manager, Assets Holdings Company – Mining and Mineral Services (AHC-MMS) - Water & Sewerage.
- Dipak Patel, Member of parliament, Forum for Democracy and Development (FDD)
- Robert Sichinga, Member of Parliament,
- Cameroon Pwele, member of Parliament, UNIP
- Dipak Patel, Member of Parliament, FDD
- Edith Nawakwi, Member of Parliament, Forum for Democracy and Development (FDD), former Finance minister during privatization negotiations with Noranda.
- Mrs. M. Katukula, Senior Research Officer, Central Statistical Office
- ZCCM-IH
- Mr. Makumba, Manager, ZCCM- IH Environmental Services
- Mr. Daka, Manager, Occupational Health and Safety Agency
- Mr. Chamululu, Mine Safety Department, Min of Mines and Minerals
- Mr. Galau Siwale, Environmental manager, Mine Safety Department

Zambian Non-Governmental Organizations (NGOs)

- Mrs. Nyata, Director, Economic Council of Zambia
- Mr. Lungu, Catholic Council for Justice and Peace
- Rev. Komakoma, Catholic Council for Justice and Peace
- Mr. Zulu, Jubilee 2000 Zambia
- Emily Sikazwe, Women For Change
- National Women's Lobby Group
- NGOCC
- Young Women's Christia Association (YWCA)
- Crispin Mwakamui, Young Men's Christian Association (YMCA)
- Darren Hedley, Urban Insaka (Care International)
- Petre Sinkamba, Executive Director, CBE
- Yaliwe Clarke Kamuhuza, KEPA Zambia
- Vivian Kasune, Program Coordinator, Zambia Association for Research and Development (ZARD)
- Mr. Mahesh Mishra, Representative, Oxfam, GB Zambia (Lusaka)
- John Mumba, Oxfam GB, Zambia (Kitwe)
- Isaac Musonda, Mine Suppliers and Contractors Association,
- Zambia Chamber of Commerce
- Henry Longo, Zambian Copperbelt Urban Livelihood Project (CULP)
- Mr. Simutowe, Chairman, Luano Land Alliance
- Mrs. Siwale, CIPEC
- Mr. Walu Kalabo, Zambian Chamber of Commerce
- Mr. Nathan D'Assis, ZACCI
- Mr. Ngandu Mwanajiti, Executive Director, Afronet
- James Kabaso, Poverty Alert Group

International Organizations and Donor agencies

- Mr. Banda - International Labour Organization (ILO - Zambia)
- Mr. Kakooza – IMF Representative (Zambia)
- Ms. Menhaz, World Bank (Zambia)
- Mr. Karangizi, COMESA

Interviews were also conducted with various other key informants

Business sector

- Mr. Bernard Chiwala, Director, Nkana Water and Sewerage
- John Silweya, Copperbelt Electricity Company (CEC)

Commentators/Independent Consultants

- Francis Kaunda, former CEO, ZCCM, consultant

- Theo Bull, Business man and Op-Ed contributor
- CBU University student leaders
- Mr. Mmembwe, Publisher and Editor, The Post Newspaper,
- Chileshe Mulenga, Executive Director, Institute of Economic and Social Research Documentation Centre
- Silane Mwenachanya, Mining consultant
- Abe Lewanika – Agenda for Zambia
- John Kasanga, Contact Management Systems
- David Littleford, Former ZCCM Managing Director
- Benson Chileshe, Personnel Officer, Krevenor Metals (former ZCCM Human resources officer)
- Dr. Albert Malama – Professor of environmental architecture, Copperbelt University
- Dr. Robert Mushota, University of Zambia (UNZA)
- Cecilia Muckepa, Lecturer, Department of Geography, UNZA
- African Mining Consultants

Surveys were administered with targeted samples from the following groups

- Members of the Mineworkers Union of Zambia – Chambishi (25), Luanshya (25), Nkana (25), Konkola (25): (Total sample - 100 miners).
- Retrenched workers who were former members of Mineworkers Union of Zambia (sample 50)
- Mukulungwe Farmers (total sample – 15)

Focus groups

- MUZ workers, (20 current and former miners)
- Mukulungwe farmers (15 farmers)
- Luana Farm Cooperative Alliance members (25 farmers)
- Independent Mine Suppliers and Contract Association members (25 contractors)
- Informal sector workers (10 traders)
- Copperbelt University students (25 students)

Site visits

- Nkana Mines, Kitwe
- KCM Mine, Chingola
- Chambishi Mines, Chambishi
- Luanshya Mines, Mpatamatu
- Metorex Metals, Chililabombwe
- Mufulira Water treatment plant

- Chingola Water treatment plant
- Wasakile Compound
- Ndeke Compound
- Mindola
- Nkana West Water treatment facility
- Nkana East Water Pump Station

Ontario, Canada (June 2002 – December 2004)

Archival and documentary research was conducted in the following sites

- Kidd Creek Mining Division, Timmins
- Kidd Creek Metallurgical Division, Timmins
- Ontario Ministry of Northern Development and Mines, Toronto
- Mines and Mineral Division, OMNDM, Sudbury
- Ontario Ministry of Northern Development and Mines – Timmins Office
- Timmins City Hall, Timmins
- Centre for Resource Studies, Queens University, Kingston

Interviews were conducted with key informants at different times during the period indicated in Timmins, Ontario; Kingston, Ontario; Toronto, Ontario.

Key informant interviews provincial and municipal government officials

- Shelley Martel, Former Minister, Northern Development and Mines, Government of Ontario, Toronto
- Chris Hodgson, Former Minister, Northern Development and Mines, Government of Ontario, Toronto
- Floyd Laughren, Former Finance Minister, Government of Ontario, Toronto
- Gilles Bisson, Member of Provincial Parliament, Timmins, Ontario; former Parliamentary Assistant, Northern Development and Mines
- Joe Spina, Former parliamentary Assistant, Northern Development and Mines
- Victor Power, Mayor, City of Timmins, President, Save Our North (SON)

- Ted McGirr, President, Timmins Economic Development Corporation (EDC)
- Sylvie Albert-Doucet, Manager, Timmins Economic Development Corporation
- Christy Marinig, Economic Development Officer, EDC
- Sylvie Doucet, Member, Northern Ontario Heritage Fund Corporation (Timmins)

Key informant interviews with mining industry officials

- Lars-Eric Johansson, Senior Vice-President, Falconbridge Ltd, Toronto
- Robert Telewiak, Vice-President, Environment, Falconbridge Ltd, Toronto
- Ben Lefebvre, President, CAW 599, Kidd Creek Mine, Timmins
- Michel Boucher, General Manager, Kidd Creek Mining Division, Timmins
- Daniel Picard, General Manager, Kidd Creek Metallurgical Division, Timmins
- Scott Albion, Public Relations Officer, Kidd Creek Mine, Timmins

Key informant interviews with non-governmental organizations officials

- L. Battochio, Director, Association of Mine Municipalities of Ontario, Timmins
- Keith Robson-Morrell, Manager, Timmins Chamber of Commerce, Timmins
- Ernest Massicotte, President, Association of Mine Municipalities of Ontario, Timmins
- Bruce Jeffery, Past President, Ontario Prospectors Association, Timmins
- Dennis Prince, Past President, Porcupine Prospectors and Developers Association (PPDA), Timmins
- Michael Doggett, Queens University, Centre for Resource Studies, Kingston
- George Hood, Queens University, Centre for Resource Studies, Kingston

Surveys were administered with targeted samples from the following groups

- Current members of CAW 599 (sample of 25)
- Former Kidd Mine and Metallurgical Divisions employees (sample of 15)