No Rock Unturned

No Rock Unturned: Revitalizing the Economies of Mining Dependent Communities

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Headframe of abandoned Citadel mine near Wawa, Ontario – photo courtesy Northwatch

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Executive Summary

This literature review investigates the ways and means by which communities that are dependent on mining may be able to revitalize their economies in the face of industry down-sizing and closure.

Local communities bear the brunt of the environmental and health costs during and after the mine, and are often ill equipped to protect their interests[1].

The literature makes it clear that mining no longer provides a sustainable base for the development of local economies. The government investments that are required to open new mines and keep mines operating, would be better spent on remediation and closure, on sustainable community economic development for remote communities, and on caring for the health concerns of affected residents. Mining must be made to better serve the development needs for an entire region, through effective land use planning and decent resource rents.

The context

The number of metal mining jobs in Canada in 2002 was 23,944[2], dropping from a 40-year high in 1974 of 70,000[3]. Even towns with operating mines have seen their populations age and dwindle[4]. In remote communities, other resource-based economic activities such as farming, fishing and logging are often neglected and damaged by the pollution from the mine and smelters, and communities become dependent on power grids, chain stores and imported goods and services to supply their needs. Mining is dangerous and destructive work, which carries with it a high incidence of industrial disease and accidents – cancers, white hand, silicosis, injuries – which has not been dealt with by industry or government. Many mine workers are unwell or disabled.

At closure the mine/mill infrastructure and the other over-sized buildings become a liability instead of an asset in the face of lost revenues from taxes. As the population dwindles, chain stores close.

The social environment in the community where the mine is operating often gets worse with closure: violence, increased drug and alcohol use, depressed expectations, power struggles, more extreme social hierarchy, and paralysis of normal ways of making decision are common.

When a mine closes or down-sizes, different populations respond in unique ways. Many miners and mining specialists can find work elsewhere and leave town. The young people – looking for opportunities and education – leave. Those workers who mix their employment at the mine with marginal farming, hunting, fishing, trapping, and other activities, and have many other skills developed through these "hobbies" are more likely to stay. Older workers (near retirement age) usually remain after closure be-

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[1] MiningWatch Canada. *On the Ground Research: A research Agenda for communities Affected by Large Scale Mines,*Ottawa ,2000.

[2] Mining Association of Canada, *Facts and Figures 2002*, Table 15. The mining industry usually includes quarrying, coal mining and non-metal mines when they talk about employment in mining, which doubles the figure. If smelters and refineries are added to the figure, the number is increased by 20,811.

[3] Jen, Lo-Sun. 2000. *Canadian Mine Openings, Closings, Expansions, Extensions and New Mine Developments in 2000.* http://www.nrcan.gc.ca/mms/cmg/content/06.pdf and
MiningWatch Canada and the Pembina Institute. Looking Beneath the Surface: Assessing the Value of Public Support for the Metal Mining Industry in Canada.MiningWatch Canada, Ottawa.

[4] Reid, L. 1986. *Ghost Town/Boom Town.* Marathon, Ontario in *Equinox*, Fall, pp.90-95.

cause they are attached to the community, unable to sell their houses, and have a settlement package of some sort. Family employment after closure shifts to the women, and to lower wages[5].

Aboriginal residents, being more attached to land base, respond differently than the settler community. One community – Lynn Lake – became an Aboriginal service centre. Uranium City saw its entire white population relocate, awhile the Aboriginal community stayed. At Schefferville, the Naskapi and Innu are negotiating to take over the town site.

The availability of cheap housing has often resulted in a number of communities having an inflow of retirees and younger people. People drawn to rural communities by the inexpensive housing and closeness to nature, are often involved in the informal economy and practice values like voluntary simplicity. Many of them are artists, craftspeople, and "jacks of all trades". They are resilient, and bring education, theory, and a real economic contribution to the existing population.

Long Distance Commuting

Mining companies operating in remote areas of Canada do not build company towns any more for economic, business and regulatory reasons. Tumbler Ridge was the last mining town to be built. There are basically two kinds of Long Distance Commuting (LDC): *Fly-in/fly-out:* where workers are flown into the mine and stay in semi-permanent camps, and situations such as those in northern Ontario, where workers *commute by car* to nearby mines every few days. If the mine is near or in a populated area or First Nation, or is a staging area for mine workers, then these existing communities and the region they are in will become a de facto "mining town". However, the impacts are rarely recognized by industry or government, and no municipal taxes come from the company to compensate for the additional services that are required.

Economic Alternatives

There is an enormous range of solutions that have been proposed to deal with the decline of mining dependent communities.

The most dramatic approach is being adopted by Russia: "Up to 600,000 Russians are to be moved from remote parts of Siberia and the Arctic… The move will be one of the biggest population relocations since the Stalin era. Large swaths of Russia's northern regions, which include mining towns, have decayed since the collapse of communism…The subsidised industries have been sold to the private sector, which, Mr. Markov said, was "downsizing and restructuring," leading to cuts in jobs." [6]

Upsetting as the relocation approach may be, it warrants consideration when most mining towns are indeed settler communities and seriously polluted. Uranium City[7] and Schefferville provide Canadian examples[8]. The industrial adjustment packages from the federal government – now only occasionally employed – were designed to assist workers with relocation. The Communications, Energy and Paper-

[5] Mawhinney, Anne Marie and Jane Pitblado. *Boom Town blues – Elliot Lake: Collapse and Revival of a Single Industry Town,* Dundurn, Toronto 1998.

[6] Walsh, Nick Paton. "Russia to relocate 600,000 from frozen north: World Bank backs scheme to help poor in Moscow, *The Guardian,* Friday, May 30, 2003.

[7] Parsons, Graham F. and Ron Barsi. Üranium Mining in Northern Saskatchewan: A Public-Private Transition"in Gary MCMahon and Feliz Remy (eds) *Large Mines and the Community: Socioeconomic and Environmental Effects in Latin America, Canada and Spain.* IDRC, Ottawa 2001.

[8] Bradbury, J.H. and I. St. Martin, "Winding Down a Quebec Mining Town: A Case Study of Schefferville, *Canadian Geographer* ,Vol XXVII, 2, P.128-144.

workers Union (CEP) and other trade unions have been doing work on "Just Transitions" for about two decades.[9] The "bottom line" for the CEP is that transitions must be fuelled "from below".

Economic Diversification Strategies: Business Ideas

A variety of business ideas that have been tried by mining communities to generate cash income are set out below.

Keeping the mining sector going. By far the most successful strategy of mining communities in the short term is finding ways and means to keep the mining sector going:

- Additional subsidies allow marginal or uneconomic mines to keep operating (the Faro mine received over $1 billion in subsidies during its 30 year life)[10];
- Finding a new ore body; and/or
- Re-mining tailings and waste rock etc. New exploration techniques, deep mining technologies and increased geological surveys make this possible. Unlike new mine development, re-mining has the potential to improve the environment of the old mine, and to add value to the work that has already been done, providing it is subjected to rigorous environmental review.
- The development of the mining supply and services sector. This strategy is possible in larger urban mining centres like Sudbury.

Housing and real estate. Faced with empty and devalued housing, a number of towns, like Elliot Lake and Logan Lake turned into retirement communities. There have been some problems with this strategy. As the retirees age and become infirm, they require nursing care on a scale that is not available in remote communities. However, the retirees, younger families and singles that move in – often artists and counter-culture individuals seeking inexpensive housing in rural settings, can also bring new energy, education and innovation to the community.

Tourism – of both the eco and ghost town varieties – appears to be the most commonly tried option. In Kimberley, B.C., land that Teck Cominco has held over the decades of the mine's life has been turned over to the city to enable it to develop recreational facilities, including a ski hill, a golf course, a mining museum, and a 1000-unit residential community. In other communities, there may be problems with the cultural shift required to service tourism, and not all communities are located in a setting or on a transportation corridor that makes this viable.

The Knowledge Economy and Information Technology (Internet) businesses are highly competitive businesses that have often been touted for mining communities. Polese and Shermur report that although central rural areas (those within an hour's drive of an urban centre) can attract IT business, peripheral ones do not.[11].

Other resource economy projects: forestry, water, agriculture. Where the resources exist, expansion into other resource-based industries presents an attractive option for mining towns. Revelstoke has developed a community forestry project. The Temagami Stewardship Council seeks to expand forestry income in the area. The North Shore Tribal Council is entering into a small scale hydro-project. One of the projects investigated by Uranium City before it closed was a pig farm; Sudbury almost had an angora goat project; Kitimat is now selling hydro instead of processing aluminium. Some mines in Mani-

[9] This literature on this can be found on the CEP web site under health_safety/files/transitions_html.
[10] CCSG Associates. *Financial Options for the Remediation of Mine Sites,* Mining Watch Canada, 2001.
[11] Polese, Maria and Richard Sheamur. *The Periphery in the Knowledge Economy: the Spatial Dynamics of the Canadian Economy and the Future of Non-Metropolitan Regions in Quebec and the Atlantic Provinces.* The Canadian Institute for Research on Regional Development, 2003.

toba are growing hydroponic vegetables and/or marijuana in the shafts. The degree of environmental degradation left behind by mining, especially of water resources, will have an impact on the ultimate viability of any future resource-based economic efforts.

Hazardous waste disposal has been touted as an option for some mining communities. The Adams Mine in Kirkland Lake and the plan by Copper Beach Estates to use the closed Britannia Mine for hazardous wastes, are short-sighted plans that have required communities already exhausted by closure to mobilize and fight.

Government decentralization or relocation of services such as education, health, regional services, penitentiaries can stabilize a community. New Dawn Enterprises in Cape Breton has shown what can be accomplished by the community take-over of service sector activities such as nursing homes. The Town of Lynn Lake set up a Housing Authority and became a regional service centre for the Aboriginal communities.

Others: The Elliot Lake Field Research Centre employs a few people with GIS capability working on mine reclamation. *Thompson, Manitoba* is doing cold testing of cars. *Sudbury* has developed a neutrino observatory. *Atikokan* has the Quetico Centre training facility and has stocked the open pit with fish. *Tumbler Ridge* has recently found dinosaur footprints.

No Rock Unturned

"We agreed we would leave no rock unturned to find ways and means to help communities revitalize their economies after the mine they had been depending on shut down."[12]

Introduction

This literature review and bibliography form the first phase of a project being undertaken by MiningWatch Canada to investigate ways and means by which communities that are dependent on mining may be able to revitalize their economies in the face of industry down-sizing and closure.

MiningWatch Canada is a coalition of seventeen Canadian organizations with a mandate to research and advocate for responsible mining policy and practices in Canada and by Canadian companies operating internationally. We and our member organizations receive many requests for help from communities with real problems, covering a range of mining and development issues. When we are asked for help, we try to provide legitimate academically founded information and analysis for communities to help them make decisions; we provide contacts and accompaniment. We do not set up nor deliver programs.

In 1999, the Innu Nation asked us to convene a consultation of Aboriginal communities in Canada that were dealing with mining issues. In 2000, we undertook a participatory research project to develop – with communities from other parts of the world – a research agenda to meet the needs of communities affected by large-scale mining, entitled "On the Ground Research". These two meetings, and other workshops and conferences which MiningWatch Canada has held, as well as literature from mining-affected peoples and scholars around the world indicate that mining dependent communities face very serious problems at mine closure. They have become dependent on an industry that will no longer support them and they need to find ways to revitalize their economies and to deal with the environmental, social and health problems that remain.

Although we do need minerals, the choices about where those minerals come from need to be made in the context of respecting the sacrifices (for many generations in the future) made to produce them: environmentally, socially, culturally and individually. Some communities can survive on mining for more than one generation but most cannot.

There are four key purposes for this research project:

- to provide information about dependency and closure that communities need before a mining company comes;
- to direct communities that already have a mining operation to resources and information to prepare themselves for the end; or
- to provide information and suggest resources to a community that is in crisis because it has been notified that the mine will close; or
- to provide information and suggest resources to communities where the mine is already closed.

The literature review, a bibliography, and a sampling of the literature look at selected books and articles, conference proceedings, presentations, web-based information, academic journals, government reports, and community and NGO reports that investigate the components of the issue. The question of economic alternatives for mining communities is the starting place for a wide range of diverse questions

[12] From a conversation between Ted Jackson, Catherine Coumans and Joan Kuyek discussing the objectives of the project. The idea for the name was Ted's.

and potential fields of enquiry. We limited the bibliography and literature review to the issues that were most frequently raised in the course of this scoping excerise.

Our analysis has been greatly assisted by the Advisory Committee[13], which suggested readings, informed our analysis, and reviewed this document. Errors are, however, our own. The use of the first person plural throughout the text makes our point of view transparent.

The first part of this document, the literature review, is organized as follows:

- The macro-economic context of mining towns
- General literature on rural and remote communities in Canada
- Environmental issues and impacts
- Issues related to the social composition and population of mining towns
- Issues pertaining to the political, economic and infrastructure nature of the town
- Long-distance commuting as an alternative to new mining towns in remote areas
- Economic alternatives: general considerations
- Economic Diversification Strategies: new business ideas
- Community Economic Development – theory and practice
- Government Programs and policy recommendations
- Case studies of specific communities
- Recommendations for Organizing for Change

The bibliography was selected from literature available on the internet, from practitioner libraries, and from government sources. Priority was given to literature published since 1980. Only English language publications have been included. Some publications were suggested by members of our Advisory Committee, and by specialists in the area. The selection is inevitably biased by the accessibility of resources, and by the time frame and budget allocated for the work.

Many of the publications used for the literature review are not in the summaries of the literature, although they have informed our analysis. A few publications are references for further research, although they did not substantially contribute to the issues discussed here.

[13] The Advisory Committee members are as follows: Roy Bowles, Gayle Broad, Dal Brodhead, Laura Calmwind, Carmen Demarco, Edward T. Jackson, Sandy Lockhart, David MacKenzie, Mary Louise McAllister, Charles Pascal, David Robinson, Robert S. Robson, and Shirley Thompson

Historic timeline of significant points in recent mining community history

1975 – Downturn in mining employment in Canada
1978 – Queens' Centre for Resource Studies set up
1978-9 – INCO strike (9 months at Canada's major mining employer)
1978 – People's Commission on Unemployment in Newfoundland
1979 – DREE. Single Industry Communities
1979 – Women's Research Centre publishes Beyond the Pipeline
1981 – Uranium City closes
1982 – Bowles: Little Communities and Big Industries published.
1982 – Task Force on Mining Communities presented to Mines ministers. Report proposes a fund to assist mining communities and individuals
1983 – DIAND publishes Northern Mining Communities
1984 – Tumbler Ridge built (last mining town)
1984 – Conference Mining Communities: Hard Lessons for the Future at Queen's
1984 – Deliberations by Mines Ministers on mining communities. Manitoba suggests Mining Community Reserve Fund. Task Force set up on New Financial Mechanisms for Mining Communities.
1984 – Corden publishes "Dutch disease" paper
1985 – Lynn Lake mines closing. Establishment of Canadian Association of Single Industry Towns (CASIT) (1985-89)
1985-7 – Community Futures Programs introduced
1986 – Royal Commission on Employment and Unemployment in Newfoundland and Labrador
1986 – Towns Wheels or Wings conference sponsored Western Resources Program of Institute for Research on Public Policy
1986-9 – Economic Council of Canada Local Development Study
1988 – Canada Employment and Immigration Advisory Council. Canada's Single Industry Communities: A Proud Determination to Survive (noted 400 ghost towns in Canada. Between 1982-1984, mining sector lost 10,000 jobs. Federal government lost $545 million in EI benefits and income tax revenue.)
1988 – Canada's Single Industry Communities: In Search of a New Partnership. Favours bottom-up development
1990 – Economic Council of Canada publishes From the Bottom Up
1990 – DIAND begins Aboriginal Economic Development initiatives
1992 – Rio de Janeiro – World Summit on Sustainable Development
1990-6 – Elliot Lake mines close
1995-6 – Deficit panic and federal budget cuts all industrial adjustment programs, training programs, drastically changes EI, cuts environmental enforcement
1992-5 – Whitehorse Mining Initiative
1996 – Environmental Mining Council of British Columbia founded
1994-7 – Boom in Canadian mining exploration and investment overseas
1995-6 – Series of tailings dam disasters at sites of Canadian mining companies operating overseas
1999 – Natural Resources Canada undertakes Sustainable Development Indicators program
1999 – Global Mining Initiative proposed, bringing together 34 multinational mining companies
1999 – MiningWatch Canada founded
2002 – World Summit on Sustainable Development ("Rio Plus Ten") held in Johannesburg; Mines Minerals and Sustainable Development report published

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Literature Review

Introduction:

"The spate of mining town closures in Canada in the early 1980s clearly demonstrated that the manner in which the workforce of a particular resource project is housed can have a major impact on the way the benefits and costs of such projects are distributed, both in the long and short run, between individuals, regions, private sector corporations and between the different tiers of government."
– I.M. Robinson, 1984, (207), p.315

Although there have been no new mining towns built in Canada since Tumbler Ridge, B.C., in 1984, there are a number of communities, particularly Aboriginal ones, that become *de facto* mining towns, because mining happens within their territory (Ritter, 2001; Robson, 1988). There are also on-going difficulties for towns that remain dependent on mines in Canada; or that were dependent on mines in the past and have been unable to establish sufficient alternative economic activities or social stability post-closure.

The literature on single industry towns, including mining, enjoyed a peak in the early 1980s, stimulated by a downturn in industry employment (Robinson, 1984; Felt & Sinclair, 1991; Russell, 1999), the organization of the Canadian Association of Single Industry Towns (CASIT) (Decter, 1989; Canadian Association of Single Industry Towns, 1989; Canadian Association of Single Industry Towns and the Federation of Canadian Municipalities, 1988; Canadian Association of Threatened Single Inudstry Towns, 1985), and the work of the Centre for Resource Studies at Queen's University (Douglas, 1984; Glass & Lazarovich, 1984; Roberts & Fisher, 1984; Graham, 1982; Centre for Resource Studies, 1978). Many of the Canadian case studies, literature reviews, conferences and policy think tanks date from that time. Alex Himmelfarb published a literature review on single industry towns in 1976 (Himmelfarb, 1976)); Robert Robson published one in 1986 (Robson, 1986).

The sections below provide a summary of the key findings from the literature about mining dependent communities

The Macro-Economic Context of Mining Towns: the "Dutch Disease"

"Mining is an activity with a short-term life and long term consequences."
(MiningWatch & The Pembina Institute, 2002)

Although in the past, some mining communities like Sudbury were built around ore bodies that might last for over a hundred years, the depletion of reserves and new mining technologies – like open pit mining (Mining Minerals and Sustainable Development Project, 2002; Russell, 1999) – mean that most new mines last less than 15 years (Mining Watch & The Pembina Institute, 2002). Minerals are non-renewable resources: when an ore body is depleted or becomes uneconomic to mine, the mine shuts down. General opinion is that global prices for mineral commodities are the major determinant of whether a mine continues to operate; Canada has little control over these prices (Envirnomental Mining Council of British Columbia, 1998; Young & Sachs, 1995; Bradbury, 1984). This opinion is challenged by Russell who raises a number of questions about the actual impact of commodity prices in his study of uranium and potash industries: "Despite over capacity and overproduction in the potash industry, and growing supply schedules coupled with flat markets in uranium, producers continue to enjoy golden conditions… corporate fortunes have seemed immune to the short-term vagaries of the market place." (Russell, 1999, p.51)

It is clear that mining communities can only do so much on their own to affect their fate (Gavental et al., 1990).

"One of the surprising features of modern economic growth is that economies with abundant natural resources have tended to grow less rapidly than natural resource-scarce economies." (Sachs & Warner, 1995)

A large and growing body of literature establishes a link, on a macro economic level, for national economies in developing countries, between a predominantly resource extraction based economy and economic stagnation and even decline from prior levels of economic growth. This pattern has been called "Dutch disease" (Young, 1992). A wider set of detrimental effects related to natural resource dependency, particularly in the developing world, is commonly captured by the term the "resource curse." These literatures are briefly reviewed here as their findings provide useful background for our more localized focus on the effects of mining on the economies of mining-dependent communities in Canada. Findings from this literature may prove to be most relevant for those communities where mining enters an existing community and local economy, or, as in the case of *fly-in/fly-out*, where mining's economic impacts affect surrounding communities.

While "Dutch disease" literature deals predominantly with impacts on national economies of developing countries, there is also evidence that mining has negatively affected regional economies in poor countries (Mining Minerals and Sustainable Development Project, 2002; De Echave, 2001; Stahl, 2001; Akabzaa, 2000; Power, 1996; Randall & Ironside, 1996; Tester, 1991; Matthews, 1983). Indeed, the literature points to the fact that 'persistent poverty' is common to several other historically mined regions around the world (Sampat, 2003; Ross, 2001) including mining regions in wealthy countries like Canada (Power, 2002).

In 1994, the World Bank, the United Nations Environment Program and others specifically recognized the dangerous effects of mining on Lesser Developed Countries' (LDC) economies and called it a case of "Dutch Disease".

> This condition occurs when a new mineral discovery or an increase in mineral prices creates a mineral boom. In this situation, the exchange rate tends to appreciate, causing other tradable sectors of the economy – notably agriculture and manufacturing – to become uncompetitive and eventually to decline; mineral wealth is dissipated and the outcome over the longer term, in the absence of an effective policy response by government, is stagnating and even negative growth for the economy as a whole. (World Bank & United Nations Program, 1994)

The term "Dutch Disease" derives from the history of how a discovery of a large reservoir of natural gas in 1959 affected the Dutch national economy over subsequent decades. In brief, reliance on income from natural resource extraction caused gross national investment to fall by 15%, employment in manufacturing to decline by 16%, unemployment to rise from 1.1% to 5.1%, share of profits in national income to drop from an average of 16.8% to 3.5% by the mid-1970s (O'Toole, 1998). The process of deindustrialization of the existing manufacturing base was attributable to the upward pressure that the energy discovery placed on the Guilder and the wage rate (O'Toole, 1998; Corden, 1992, 1984; Corden & Neary, 1982).

In the Netherlands the primary impact was on manufacturing. It has since been realized that "Dutch disease" has a particularly strong impact on the economies of Lesser Developed Countries (LDC), as these countries tend to have a large dependence on a very limited range of primary, mainly agricultural, products, whose prices can be highly volatile. These countries tend to have small open economies They are "price takers" in international markets, and they cannot influence world terms of trade (World Bank Global Mining Department, 2002; Benjamin et al., 1989).

Heeks (1998) outlines the negative effects of "Dutch disease" as:

a) The spending effect. This occurs when part of the additional income generated – thanks to the mineral boom – is spent in-country on non-traded goods and services (education, health, welfare, construction, other services), leading to excess demand for these since imports cannot flood in to meet demand and since domestic supply constraints exist. As a result, there is price (and, hence, profit) appreciation. In comparative terms, local production of traded goods becomes relatively less profitable and this encourages its relative contraction.

b) The resource-movement effect. This occurs when the boom in the minerals sector causes the marginal product of actors employed in that sector to be raised. In other words, as the output price of the extracted mineral rises, so does the apparent productivity of production factors such as labour and capital. Where these resources are mobile, they will be drawn out of other sectors into the booming minerals sector. Put more simply, investors will invest capital in minerals rather than other sectors because their investments will bring higher returns, and workers will also prefer this sector because they will be paid more.

c) The currency appreciation effect. According to the standard description, the mineral boom will cause the local currency to strengthen and appreciate. This will hinder exports by increasing their price and will encourage imports by reducing their price, thus discouraging import substitution. In particular, this is felt to create problems for the manufacturing sector as it did in Holland.

d) The technology substitution effect. In theory, the cost of labour is likely to rise relative to the cost of capital as wages are bid up in a booming economy, thus causing a shift from labour-intensive to capital-intensive production techniques.

e) The enclave effect. This refers more to the lack, rather than presence of, an effect because mineral boom sectors generate few direct externalities despite inducing large infusions of foreign capital and technology. More sector revenue are invested overseas than locally. Of those invested locally, the majority are ploughed into welfare, not into manufacturing, and so the development potentials of the economy are thwarted by the almost hermetically-sealed nature of the industry itself and the revenues generated by that industry.

f) The dependency effect. This refers to the dependence of national economic development on mineral exploitation. Government and private sector activities in GDP, which appear to have grown, are financed by mineral revenues leaving the whole national economy vulnerable to the ups and downs of one sector.

In discussing the impacts of mineral sector reliance in developing countries the term "resource curse thesis" is used in addition to Dutch Disease (Auty, 1993). It covers a wider range of costs associated with a booming mineral sector and addresses the role of mining development in poverty alleviation, and in relation to factors considered by the Human Development Indicators.

Recently, the World Bank's own researchers found that "countries with substantial incomes from mining performed less well than countries with less income from mining." (World Bank Global Mining Department, 2002; Friends of the Earth International, 2001) "Performance" is increasingly measured more widely than in purely economic terms. Several researchers have identified a number of other disturbing correlations related to mining dependent economies (Gylfason et al., 1999; Sachs &Warner, 1995; Leite & Weidmann, 1990).

"Unfortunately, the Bank and its critics are both falling into the correlation trap. The country-wide data presented in macroeconomic analyses is only useful in telling us that mining investment is by no means a sufficient condition for economic growth. The challenge in such regions then is to channel the monopsonistic and monopolistic power of the industry in a productive fashion to maximize benefits to local regions and communities." (Saleem H. Ali, 2002)

In a recent publication for Oxfam, Michael Ross compares the world's 25 most mineral dependent states and discovers that the higher the level of mineral dependency the higher the level of social woes (Ross, 2001). High mineral dependence was correlated to:

- a low ranking on the Human Development Index
- a drop in ranking on the HDI between 1990-1998
- a high percentage of population in poverty
- low economic growth
- high under-five mortality
- low life expectancy
- high income inequality
- vulnerability to economic shocks
- high corruption
- authoritarianism
- lack of government effectiveness
- likelihood of civil war
- high military spending (% of government spending)

Evolving trends in mining do not provide hope that the negative impacts associated with mineral dependency will be reversed. In fact, trends in mining are more likely to deepen the economic and social costs to national economies and to local communities:

> Mining employment is in general falling in most of the world, even as output goes up. It is becoming much more specialized. There are today far fewer semi-skilled 'pick and shovel' jobs than there once were, and it is often hard for local people to fill most of the skilled positions. In addition, it appears that a corporate strategy based on 'contracting out' or outsourcing combined with better transportation and a smaller work force means that even food and other such commodities may be increasingly supplied by foreign or at least non-local vendors. If governments and other actors want to ensure that local people gain more of the benefits from mining operations, they need to find ways of offsetting these trends. (Mining Minerals and Sustainable Development Project, 2002)

General literature on rural and remote communities in Canada

There is a substantial body of literature in Canada on the decline of rural and remote communities in general, and we have not exhaustively searched it. We may also have missed mining town case studies that form part of larger edited volumes (Bruce & Halsef, 2001; Canadian Rural Restructuring Foundation, 1998; McAllister, 1997; Bollman & Bryden (eds.), 1997; Rounds, 1997; Agriculatural and Rural Restructuring Group, 1992, 1991; Broadhead, 1990)

The lead organization in rural studies in Canada has been the Community Rural Revitalization Foundation and its predecessor the Agriculture and Rural Restructuring Group, which has published extensively and held a number of conferences on rural society and change. CRRF is the sponsor of the New Rural Economy Project out of Concordia University**.** Phase 2 (NRE2) is "a research and education program studying rural Canada since 1998. It is a collaborative undertaking bringing together rural people, re-

searchers, policy-analysts, the business community, and government agencies at all levels to identify and address vital rural issues. It is conducted at the national level with historical and statistical data analysis, and at the local level with case studies involving community and household surveys. The NRE's mandate has been extended through 2006 with the help of a major grant from the Initiative on the New Economy Program (INE) of the Social Sciences and Humanities Research Council of Canada."[14] It will build capacity in 32 rural communities across Canada: two of them – Arctic Bay, 21 kilometres from Nanisivik, and Springhill – are mining communities. Its web site is www.nre.concordia.ca.

Greg Halseth is Canada Research Chair in Rural and Small Town Studies at the University of Northern British Columbia. His SSHRC-funded research will provide "an economic assessment of small one-industry towns, focusing on their economic viability in the face of growing urbanization… and a better understanding of the impact that restructuring of public services has on rural and small town Canada."[15] His work includes a focus on Tumbler Ridge where the Bullmoose Mine was located. His web site is www. unbc.ca/geography/faculty/greg/publications.htm.

Allison Gill has a SSHRC-funded research project in collaboration with Maureen Reed in the Department of Geography at UBC. This study of the Howe Sound-Whistler Corridor considers the impacts of the tourism system within the local region. "In particular, the research contributes to an understanding of the changing values in rural areas from those associated with traditional productive activities to consumptive values relating to tourism and recreation activities."[16] The former Britannia Mine is in this corridor.

The Natural Resource Depletion and Health project is a collaboration between the Nursing Department of Memorial University and community groups. Funded by the Canadian Institutes of Health Research and SSHRC, the purpose of the project is to see how the health of people in coastal communities has been affected by the fishery crisis since the end of TAGS. The project is also looking at communities in Cape Breton where the mines have closed to compare the impacts on personal and community health in single industry towns as a result of depletion of resources (mining, fishing). New Waterford is one of their study sites. Their web site is www.mun.ca/cin/Depletion.html.

The impact of the closure of Canada's east coast cod industry on traditionally resource-based coastal towns is the focus of another collaborative research project involving more than 100 investigators across the country. The Coasts Under Stress Project is studying the social, economic and environmental interaction of people living in coastal B.C., Newfoundland and Labrador. This is a five-year, $6.2-million project partially supported by the Natural Sciences and Engineering Council (NSERC) and the Social Sciences and Humanities Research Council (SSHRC)[17], and spearheaded by Rosemary Ommer, director of the Calgary Institute for the Humanities at the University of Calgary. Their web site is http://www.coastsunderstress.ca/home.html.

"Innovation Systems and Economic Development: The Role of Local and Regional Clusters in Canada" is a five-year, $2.5 million study funded by the Social Sciences and Humanities Research Council that is examining the impact and importance of cluster-driven innovation in Canada. The first of its kind in Canada, this study will investigate how local networks of firms and supporting infrastructure of institutions, businesses and people in communities across Canada interact to spark economic growth. One of

[14] from the web site at www.nre.concordia.ca
[15] from the web site at www. unbc.ca/geography/faculty/greg/publications.htm
[16] from her internet biography. Contact agill@sfu.ca
[17] from its web site at http://www.coastsunderstress.ca/home.html

the clusters it is examining is a mining cluster in Ontario focused on mining services in Toronto and mining supply and education in Sudbury. Its web site is www.utoronto.ca/isrn.

There are also a number of academically-based institutes in Canada with expertise in rural development. The four with the most substantial involvement in mining towns appear to be the Institute for Northern Ontario Research and Development (INORD), the Centre for Community Enterprise at the University College of Cape Breton, the Rural and Small Town Program at Mount Allison University in Sackville, and the Natural Resources Institute at the University of Manitoba.

The seminal work of Roy Bowles (1995, 1992, 1982, 1981; Bowles et al., 1994) on the relationship between large industry and rural towns still has relevance today. Lockhart (1991, 1990, 1989, 1987, 1985, 1982) examines the relationship between conventional development and community-based initiatives in rural communities in northern Canada. Bollman (Bollman & Bryden, 1997; Bollman, 1992), Clemenson (1992), Luther and Wall (1987), McAllister (McAllister & Wismer, 1999a; McAllister et al., 1999b; McAllister 1997a, 1997b), McDann (1987, 168), Rounds (1997), and Savoie (1986), all provide overviews that are useful to understanding mining communities.

The literature also indicates that there are substantial differences in many respects between mining and smelting towns and other resource extraction communities. Studies undertaken by INORD in the Elliot Lake Tracking Study (described below) and by Queen's University's Centre for Resource Studies from 1978-1982, note some of these differences in population, community structure, culture, etc.

The Elliot Lake Tracking Studies (ELTS) are generally recognized as the most complete analysis of the impacts of mine closure on a town in Canada. "In May 1990, Rio Algom Mines, a major employer in Elliot Lake, Ontario, announced that it would lay off half of its workforce. With INORD seed money and additional funding from the Ministry of Northern Development and Mines, D. Robinson, D. Wilkinson, D. Leadbeater and P. Suschnigg began the Elliot Lake Tracking Study to examine the long-run impact of layoffs on workers by early September of that year. Rio Algom soon announced that they would be closing all the mines in Elliot Lake. Denison Mines made the decision to close soon after. As a result the tracking study found itself dealing with the complete closure of an industry in a remote community and the end of an era."[18]

Between 1995 and 1998 the Elliot Lake Tracking Study was extended with funding from Human Resources Development Canada. The expanded project was known as the Elliot Lake Tracking and Adjustment Study (ELTAS). The Elliot Lake Tracking Study continued until 1999, retaining 1000 of the original sample though five surveys. Later rounds were funded by the Labour Adjustment Board, Human Resource Development Canada and the SSHRC. For a complete list of these important publications see www.inord.laurentian.ca. Some are referenced in the bibliography.

The Queen's University Centre for Resource Studies turned out 246 papers and reports between 1985 (date of first annual report) and 1990-91. Many are relevant to the issues identified in this scoping study. Some are referenced in the bibliography (Douglas, 1984; Glass& Lazarovich, 1984, 1983; Roberts & Fisher, 1984; Glick, 1983; Centre for Resource Studies, 1978). These texts may be found through www.library.queensu.ca.

[18] from the web site at www.inord.laurentian.ca

Aboriginal Communities and Mining Dependency

"I guess in terms of my own personal recollection of who we are, this Ojibwe community was self-sustaining prior to the discovery of uranium. By self-sustaining, I mean that we are a people who lived off the land. We hunted, we fished, we trapped. And every family had their own family garden. They took fish out of the river, out of the lake. The territory was relied upon for the trapping that went on there. In the summertime, everybody did things like pick blueberries, cranberries, strawberries and used them to supplement their incomes or to make preserves to carry them through the winter. Many of the men had their own fishing nets and trapping areas all throughout this area, on the reserve and north of the reserve. And I guess basically what happened when they discovered uranium is we were taken out of that reliance on the natural environment and moved into the wage economy."

(Chief Earl Commanda, Rekmans et al.(eds.), 2003)

Most mining communities until recently were settler communities that displaced the original indigenous population, often causing great harm to that community. Between a Rock and A Hard Place, the report from the MiningWatch/Innu Nation conference in 1999, contains many accounts of the results. An international perspective is found in a number of other documents. (Weitzner, 2002; Forest Peoples' Programme, 2000; Mining Watch Canada, 2000)

Since the recognition in the Canadian courts of Indigenous rights and title, mining companies are increasingly being forced to work with indigenous communities as they explore and develop deposits on their traditional territories (Mining Watch Canada & The Innu Nation, 2001; Ritter, 2001; Canadian Arctic Resources Committee, Volumes 25, No.4 & 23, No.3). This has, and will have, enormous implications for indigenous people. We have found few case studies or analysis in the public domain of the long-term impacts of this dependency after the mine closes. However, a conference carried out by MiningWatch with the Assembly of First Nations, After the Mine: Healing Our Lands and Nations, in spring 2002, indicated this is an area of serious concern (Mining Watch Canada & The Assembly of First Nations, 2002). The Serpent River First Nation account This is My Homeland, (quoted above, Rekmans et al. (eds), 2003) is a moving description of the issue, as is the story of Ross River, contained in Just Like People Get Lost: a retrospective assessment of the impacts of mining development on the land use of the Ross River Indian people (Weinstein, 1992). An extensive analysis of the social impacts of the Raglan Mine on Inuit peoples has been undertaken by Makivik Corporation, but was not released at the time of our study.

Environmental Impacts and Issues

"The current state of the world is the result of a system that attributes little or no "value" to peace. It pays no heed to the preservation of natural resources or to the labour of the majority of its inhabitants or to the unpaid work of the reproduction of human life itself – not to mention its maintenance and care. The system cannot respond to values it refuses to recognize." (Marilyn Waring, 1989)

Mining frequently has a large environmental footprint that extends well beyond the pit itself: air pollution, enormous consumption of energy, and road and rail transportation by-products, are some of the environmental costs associated with mining. Mining poses a major threat to the world's remaining natural forests (Interntional Union for the Conservation of Nature & The World Wildlife Fund for Nature, 1999). Localized disturbance can also have far reaching effects on biodiversity in sensitive and not well-understood ecosystems such as in the tropics or in the North. Smelting and refining operations extend these effects considerably.

Water has been called "mining's most common casualty" (Environmental Mining Council of British Columbia and The British Columbia Wild, 1996). Through mining's impacts on surface and subsurface water, entire watersheds or thousands of year old aquifers may be affected "in perpetuity" (Mining Minerals and Sustainable Development Project, 2002). Acid Mine Drainage, a chemical reaction that occurs when natural sulphides in the ore body become exposed to air and water, has been known to continue for thousands of years and is environmentally toxic both because of its low pH and because of the metals that are dissolved and leached from the rocks. Alkaline drainage can also be environmentally toxic and even neutral drainage is known to transport toxic levels of metals. Finally, there may be radiological effects in mine drainage. Because of the intractable and long-term problems associated with toxic mine drainage many mines will need to have drainage from the site treated and released "in perpetuity." In those regions, including in Canada, where communities still rely directly on their environment for food and drinking water security, contaminated water can have immediate, serious and long-lasting effects (Coumans, 2002).

Waste, especially in the form of tailings and waste rock, is the single largest environmental problem in mining. In modern open-pit mining the waste to product ratio is enormously high. Open pit mining requires removing "overburden," the dirt, rock, and hydrological and biological systems that cover the ore body. These materials are commonly deposited in waste rock dumps. Of the ore that is removed from the earth and processed, only a small proportion produces the desired metal; the rest, called tailings, is waste. For example, in copper mining there are roughly 99 tonnes of waste rock and tailings for each tonne of copper that is produced (Environmental Mining Council of British Columbia and The British Columbia Wild, 1996). In gold mining the waste ratios are even higher. One pair of gold wedding rings leaves behind up to 6 tonnes of waste rock and tailings (Sampat, 2003; Mining Watch Canada & The Pembina Institute, 2002). The ratios are likely to get worse as existing high-grade reserves are exhausted and lower-grade resources are developed. In 1996 the Canadian mineral industry generated about 650 million tonnes of waste per year (Environmental Mining Council of British Columbia, 1998).

All too frequently, the waste containment systems mining companies put in place, tailings and waste rock impoundments, frequently allow toxic leaks and seepages or even catastrophic releases with grave environmental and social consequences (McKay, 2000; Coumans, 2000). As companies are increasingly being held responsible for the expenses of maintaining these impoundments, not only during the mine's lifetime but, ever more frequently, "in perpetuity", they are looking for more cost effective waste management systems. Unfortunately, these "solutions", such as lake, river or ocean dumping of mine waste simply externalize costs onto the environment and are not only very damaging but also produce impacts that are impossible to mitigate. (84c). In Canada, there is a growing awareness that waste impoundments in the North that relied on permafrost may become unstable as a result of global warming (Perkins, 1997).

The table below sets out the key environmental impacts related to each stage of mining. (Young, 1992).

The Environmental Impact of Minerals Extraction

Activity	**Impacts**
Excavation and Ore Removal	• Destruction of animal, plant and fish habitat, human settlements, and other surface features (surface mining) • Land subsidence (underground mining) • Increased erosion; silting of lakes and streams • De-watering of lakes and draw-down of aquifers • Waste generation (overburden) • Acid drainage and metal contamination of surface and groundwater

	• Impacts of producing energy used in extraction and removal
Ore Concentration	• Waste generation (tailings) • Organic chemical contamination (tailings may contain residues of chemicals used in concentration processes) • Acid drainage and metal contamination of surface and groundwater • Impacts of producing energy used in milling/ concentration
Smelting/Refining	• Air pollution (acid rain precursors and heavy metals) • Waste Generation (Slag) • Impacts of producing energy used for smelting

Health effects related to environmental degradation are largely undocumented. There is a literature review of health effects that was undertaken by Stephens and Ahern of the London School of Hygiene for the Mines Minerals and Sustainable Development Project (Stephens & Ahern, 2001). This "rapid review of the literature" in PUBMED draws the conclusion that "Mining remains one of the most hazardous occupations in the world, both in terms of short term injuries and fatalities, but also due to long term impacts such as cancers and respiratory conditions". It also says "the number of articles that focused on non-occupationally exposed populations was limited. Existing studies provide indications of the health problems faced by communities."

Finally, the legacy of the environmental impacts of a mine must become part of the equation when one starts to look at community economic development after mining. In Canada currently, most new mines are required to have some kind of reclamation bonding to ensure that the company decommissions the mine properly and takes responsibility for its perpetual care. However, there are serious problems in regulation and enforcement of closure plans, and most mines are inadequately insured.

There has yet to be a successful mine closure in Canada from an environmental perspective. Most mine communities live with a degraded ecosystem. Some face looming ecological disaster, and protracted legal proceedings and debates over who has responsibility for clean-up. The Community Involvement study commissioned by the National Orphaned/Abandoned Mines Initiative (NOAMI) illustrates these problems at the Deloro, Giant and Mt. Washington Mine sites (National Orphaned/Abandoned Mines Initiative, 2003). Recent newspaper articles about nickel oxide and lead toxicity at Port Colborne; and a current study of soils in the Sudbury area indicate the extent of the problem in these cities. The MiningWatch Canada report on the mining threats to the boreal forest also contains a number of examples of health impacts from mining (Mining Watch Canada, 2002). Toxins may include radioactivity, lead, nickel, arsenic, cadmium, asbestos, cyanide, mercury.

Many aboriginal communities do not know that "closure and remediation" frequently means large – albeit tidy – toxic waste impoundments, and that the land will never provide the same natural values and services it once did (Mining Watch Canada & The Assembly of First Nations, 2002; Mining Watch Canada & Innu Nation, 2001). There is then a question of compensation and liability issues. The mine does not end when it closes; it will have to be maintained and serviced, sometimes for ever.

The Population of Mining Towns

The number of metal mining jobs in Canada in 2002 was 23,944[19], dropping from a 40-year high in 1974 of 70,000 (Mining Watch Canada & The Pembina Institute, 2002; Jen, 2000). Even towns with operating mines have seen their populations age and dwindle (Reid, 1998). There are some studies of populations in mining towns conducted while mines were either still operating, closed or closing, that illustrate the ways in which population size and composition change (Heard, 2000; Halseth, 1998, 1993; Weinstein, 1992; Bancroft, 1975), although most take only one snapshot of the population.

As the mine down-sizes and closes, Aboriginal residents appear to respond differently than the settler community. Attachment to the land itself is a major factor. One community – Lynn Lake – became an Aboriginal service centre (Walker, 1987). Uranium City saw its entire white population relocate, and the Aboriginal community stayed. At Schefferville, the Naskapi and Innu are negotiating to take over the town site (Mining Watch Canada & The Assembly of First Nations, 2002). At Leaf Rapids, the Marcel Colomb Band is avoiding the former town site and building a new community outside its boundaries. Depending on the number of Aboriginal members in the workforce and the characteristics of the communities they came from, responses to closure may vary. We found no literature that discussed this issue.

Mining specialists such as engineers tend to leave the community when the mine closes. Traditionally many miners are itinerant and will leave the town once the work is gone (Halseth, 2000, 1999; House et al., 1989). Often they find themselves together in another town. Management of the mines tends to create a virtual community of relationships that is in fact quite closely knit. (Cassiar employees have a virtual community at www.cassiar.ca.) This community of engineers, managers and tradespeople also travels overseas. However, the general reduction in the number of people employed in mining makes it less likely that there will be mining work elsewhere. The average age of people working in mining has been increasing dramatically, and the industry is concerned about the lack of "new blood". Younger settler families leave when the mine closes if they can find other work, or move home to their extended family if they can't. Many people at Elliot Lake were happy with what they got out of the mines; their children moved away and went to university (Leadbeater, 1998a, 1998c; Lansbury & Breakspeak, 1995; Felt & Sinclair, 1991; Locke, 1986).

However, many workers mix their employment at the mine with marginal farming, hunting, fishing, trapping, and other activities, and have many other skills developed through these "hobbies" The general-knowledge part of the community is more likely to stay. In mining communities there are fewer of these generalists than in fishing or forestry towns, because the work is not seasonal or part-time (MacIntyre, 2002; McAllister, 1997b; Lockhart, 1991, 1990, 1987,1982; Lucas, 1990).

Mining is dangerous and destructive work, which carries with it a high incidence of industrial disease and accidents – cancers, white hand, silicosis, injuries – which has not been adequately compensated by Workers Compensation nor dealt with by industry or government (Stephens & Ahern, 2001). Many mine workers are unwell or disabled. Older workers (near retirement age) usually remain because they are attached to the community, unable to sell their house and have a settlement package of some sort.

The young people – looking for opportunities and education – leave. There is a "creaming off" process involving the youth and local leadership, as they get an education and do n'ot return home.

The impacts of mining on women has been the subject of particular study (Porter & Neizert, 1997; WomenFutures, 1993; Canada Employment and Immigration, 1989; Waring, 1989; Barrett, 1986; Pro-

[19] Mining Association of Canada, *Facts and Figures 2002*, Table 15. The mining industry usually includes quarrying, coal mining and non-metal mines when they talk about employment in mining, which doubles the figure. If smelters and refineries are added to the figure, the number is increased by 20,811.

ject Mayday, 1985; Women For Economic Survival, 1984; Women's Unemployment Study Group, 1983; Women's Research Centre, 1979; Northern Women's Task Force, 1977). In 2001, the Yukon Conservation Society published Gaining Ground: Women, Mining and the Environment (Cleghorn et al., 2002). The result of a participatory research project and conference, the publication made a number of points relevant to this study. "Women, as members of their communities, are at the forefront of knowing how projects affect the health of the environment, families and communities… Often they are also agents who address, contemplate and cope with the social and environmental impacts of mineral resource development."

The Elliot Lake study points out the shift in family employment after closure to the women, and to lower wages. Women still earn less, often working in the service sector. Those who start small businesses tend to have a greater success rate than men, often because they are willing to earn less (WomenFutures, 1994; Alderson & Conn, 1988).

"Mining is exploitative. So I found when I was working (in the mining community) that when you start with your sole employer – your sole role model – the leader in the communities – being that exploitative, it went right down the line." (Yukon health worker quoted in Cleghorn et al., 2002) Some researchers mention the culture and social psychology particular to mining towns. (Cleghorn et al., 2002; Weitzner, 2002; Bowles, 1992, 1982). Violence against women is prevalent (Cleghorn et al., 2002; Jiwani, 1998; Women For Economic Survival, 1984; Women's Research Centre, 1979). A culture with excessive drinking and drugs is encouraged (Cleghorn et al., 2002; Mining Watch Canada & The Assembly of First Nations, 2001).

After closure, the availability of cheap housing has often resulted in a number of communities having an inflow of retirees and younger people with alternative lifestyles.

The Town Itself

"Call it the great gold heist of Lynn Lake. The administrator of the tiny Manitoba town (population 1,000) intercepted a shipment of gold on the way to the airport from the Keystone Gold Mine on Monday, threw 2,400 ounces of it into his vehicle and made off with the prize. Mayor Audie Dulewich said yesterday that town officials were afraid Keystone owner Black Hawk Mining Inc., which is about to shut the open-pit mine near this northern community, would skip town without paying more than $2 million that the town says it owes in overdue municipal taxes."[20] (Globe and Mail, Dec. 8, 1999.)

Local communities bear the brunt of the environmental and health costs during and after the mine, and are often ill equipped to protect their interests (Mining Watch Canada, 2000). Every community has its own sense of who it is and those differences have a lot to do with determining their capacity to absorb the changes that occur when a mining company comes in. Some communities are more integrated and capable than others. The Centre for Community Enterprise's Community Resilience Manual is a tool to assess this, and has been used effectively in a number of communities in Canada and elsewhere (Centre for Community Enterprise, 2000). An earlier version of the assessment tools was developed by the Canadian Association of Single Industry Towns in the 1980s (Canadian Association of Single Industry Towns, 1989; Canadian Association of Single Industry Towns and the Federation of Canadian Municipalities, 1988).

The so-called "Dutch disease" at the national level has an analogue at the community level in Canada. Often, other resource-based economic activities such as farming, fishing and logging are damaged by

[20] "Tiny town grabs gold in tax fight with mine". Globe and Mail December 8, 1999.

the pollution from the mine and smelters, and these remote communities become dependent on power grids, chain stores and imported goods and services to supply their needs (Bowman & Baker, 2000; Halseth, 2000; Gylfason et al., 1999; Clemonson, 1992; Lithman, 1984; Locke, 1986; Canaqdian Association of Threatened Single Industry Towns, 1985; Lithman, 1984; Bowles, 1981). There appears to have been little investigation specific to mining towns that asked the following questions: To what extent does the mine and the settlers who are there link the community to the global economy and grids for energy, food, shelter, water etc. in irreversible ways? What is the extent of the community dependency on the mine for services: rail, road, hydro, water, waste disposal? What about other services like recreation and municipal governance? What kind of taxation relationship does the town have with the mine?

It becomes very clear when the mine closes that communities need more than infrastructure. Companies tend to put money into infrastructure like schools, hospitals, and the arena, but not into soft services, and at closure the mine/mill infrastructure and the other over-sized buildings become a liability instead of an asset in the face of lost revenues from taxes. In Schefferville, the First Nations were denied use of the community centre built by the company (Mining Watch Canada & The Assembly of First Nations, 2002). Murdochville wants to give up its municipal status, because it can no longer afford to maintain its services.

Mining tends to displace previously existing business and industry for various reasons such as destruction of traditional food sources and livelihoods, and raised expectations in terms of wages. (Enzoe & Catholique, 2002; Lucas, 1990, 1971). There are often problems because community members develop elevated expectations about how much money they should receive for their work and will not accept less from other work, no matter how much they need it (McAllister & Wismer; Leadbeater, 1997; McAllister, 1997a). Polese and Shermur write “Some peripheral communities are high wage-cost locations. This is specifically so for small and medium-sized towns dominated by capital intensive industries paying high wages, which set the norms for the community: large pulp and paper mills; mines; aluminium smelters; etc. We have dubbed this the Intrusive Rentier Syndrome. Its impacts can be devastating on local entrepreneurs seeking to diversify into other (wage sensitive) sectors, acting as a major impediment to the creation of a diversified export base.” (Polese & Sheamur, 2003, p.xxv)

The social environment in the community where the mine is operating often gets worse with closure: violence, increased drug and alcohol use, depressed expectations, power struggles, more extreme social hierarchy, and paralysis of normal ways of making decision are common (Cleghorn et al., 2002; Jiwani, 1998; Women For Economic Survival, 1984; Women’s Research Centre, 1979; Barton, 1969).

“The efforts at finding new directions that did occur were often beset by political division and a lack of openness and community solidarity... In boom times at Elliot Lake the dominant values fitted easily with an increasingly high level of consumerism and an individualization of social and environmental problems. But with the mass layoffs of the 1990s and the acute crisis facing Elliot Lake’s development, it became increasingly apparent that neither these dominant economic and social values nor the legacy of top-down, company-town democracy could hold the community together under stress.” (Leadbeater, 1998)

Long Distance Commuting

Mining companies operating in remote areas of Canada do not build company towns any more for economic, business and regulatory reasons. Research from Queen’s Centre for Resource Studies and Canadian Association of Single Industry Towns in early 1980s documented this shift. Tumbler Ridge is the last mining town that was built (Robinson & Newton, 1998). There are basically two kinds of Long Distance Commuting (LDC): *Fly-in/fly-out:* Workers are flown into the mine and stay in camps (bunk

house camps are being built, not mining towns), and situations such as those in northern Ontario, where workers *commute by car* to nearby mines every few days. The car commute adds many hours to a work day and exposes the worker to traffic related hazards, but may not be compensated by the company. The time used for the air commute may or may not be compensated.

Shrimpton and Storey have written extensively on LDC (1992, 1991, 1989, 1988, 1987). Another detailed analysis of settlement options for non-renewable resource development in Canada and Australia – proposing an evaluation tool – was published in 1988 by CSIRO (Robinson & Newton, 1988). This paper sorts the options into four categories and compares advantages and disadvantages of each: new single industry towns, expansion of an existing community to accommodate short distance commutes, building a town to accommodate workers from a number of mines within the same area; and fly-in on a rotational basis. We found a few case studies of LDC: the Nansivik Mine was flying workers in from Arctic locations as well as Montreal for a 13 week in and 3 week off rotation; Terra Mines in the Northwest Territories flew workers in from Yellowknife and Edmonton on a 28 days in/28 days off rotation. Many of the Cluff Lake miners commuted from St. John's Nfld. and from Denver, Colorado.

Companies are inclined to say that LDC protects communities from the boom-bust cycles of mining, because there is no mining community *per se*. However, the literature indicates that there are also benefits, costs and consequences for distance workers and the communities in which they and their families live. In many respects the social costs of LDC are externalised to the communities the workers come from and mine owners are not easily held accountable for these indirect consequences. If the mine is near or in a populated area or First Nation, or is a staging area for mine workers, then these existing communities and the region they are in will become a de facto "mining town" (Favreau & Ninacs, 1992). However, the impacts are rarely recognized by industry or government, and no municipal taxes come from the company to compensate for the additional services that are required.

According to the literature, the effects of LDC are mixed at best.

Positive:

1) There is no doubt that LDC has enabled the employment of Aboriginal and other rural people at mining operations (Economic Council of Canada, 1987) by enabling them to retain an attachment to their families, community and traditional livelihoods.
2) It reduces the biophysical footprint of the mine by not developing an entire new community and its concomitant infrastructure.
3) It does not create a full community with expectations of continuation.
4) From the company's and government's point of view, they are not burdened with the capital costs of construction and the operating costs for infrastructure and services (which instead fall to the individual home-owner or small business person).
5) The workforce can get access to the services in larger towns and cities.
6) The spin-off benefits of mine wages are spread over a wider area.
7) Security at the mine site is easier to enforce. (This is particularly important for diamond mining companies.)

Negative:

1) No municipal entity is created so there are no political voices for the communities to bring attention and focus to community issues, and there is no machinery for up-front public planning about the mine.
2) The company does not pay municipal taxes and has no "stake" in housing crises and other problems that it may cause in the staging communities.
3) The increased incomes exacerbate the class system in communities, and are frequently spent on alcohol and drugs.

4) LDC displaces the responsibility at closure from the company and senior levels of government.
5) LDC appears to have a disruptive impact on community and families during mine life (Enzoe & Catholique, 2002). There are reports of problems at the on-site camps re: unionization, racism etc. (Halseth, 2000; Mining Watch Canada & Innu Nation, 2001; Hobart, 1988).
6) LDC makes community monitoring of environmental impacts very difficult.
7) Another issue is "fly-over", the import of experts from all over the world means expertise is never developed in the remote regions. In Elliot Lake, the top underground miners were flown out to different sites and new mines all over the world. They were and still are a valuable commodity.[21]

On December 8, 1999, Lance Gillis, aged 29 years, died after he fell asleep at the wheel of his car, coming home from working all night on a diamond drill rig on Inco property near Murray Mine in Sudbury. In the last 30 days of his life he had spent 368 hours working 30 twelve hour shifts. We found no research being done on workers commuting by car.

Remote mining – trying to automate mining from one central location – is another "solution" to the labour costs of mining in remote locations which is being explored by mining companies (Jackson, 1987). However, someone still has to control the machine and, when it breaks (often on a daily basis), someone has to go down into the mine and fix it.

There was also some concern about where the generational knowledge and labour force were to come from if there are no longer mining communities (Robinson, 2003). However, Russell points out that at the mines he studied (potash and uranium mines in Saskatchewan), most workers were first generation miners (Russell, 1999).

Economic Alternatives – general considerations

There are a number of general comments to be made about economic alternatives for mining dependent communities, and there is an enormous range of solutions that have been proposed to deal with their decline.

The most dramatic approach is being adopted by Russia:

"Up to 600,000 Russians are to be moved from remote parts of Siberia and the Arctic… The move will be one of the biggest population relocations since the Stalin era. Large swaths of Russia's northern regions, which include mining towns, have decayed since the collapse of communism. Without government subsidies families have been forced to endure poverty and the extreme climate… Inhabitants would be resettled near urban centres where they could find work and cheap accommodation… Andrei Markov, the coordinator of a World Bank project called Russia's Northern Restructuring, said: "The idea came in 1998 when the Russian government approached the World Bank for support… We decided to run a pilot project in the coal-mining town of Vorkuta, the nickel town of Norilsk and the gold-rich Susuman district of Magadan… Norilsk, which began as a gulag, is believed to be Russia's most polluted town. Life expectancy is 10 years below the average for Russia. The air is thick with sulphur which turns the snow yellow… In the Soviet times these places were heavily subsidised by the state as they were very interested in developing the areas at all costs to generate natural resources. After the economic reform [of the 1990s], the subsidies are unaffordable." The subsidised industries have been sold to the private sector, which, Mr. Markov said, was "downsizing and restructuring," leading to cuts in jobs." (Walsh, 2003)

[21] For a fictionalized (but accurate) view of the life of these itinerant miners see Alister MacLeod's No Great Mischief.

Upsetting as the relocation approach may be, it warrants consideration when most mining towns are indeed settler communities and seriously polluted. Uranium City (Parsons & Barsi, 2001) and Schefferville provide Canadian examples (Bradbury, 1984; Bradbury & St. Martin, 1983; Bradbury & Wolfe, 1983). The industrial adjustment packages that used to be available from the federal government, and are now only occasionally employed, were designed to assist workers with relocation.

The Communications, Energy and Paperworkers Union (CEP) has been doing work on "Just Transitions" for about two decades. Their literature on this can be found on their web site under health_safety/files/transitions_html. The "bottom line" for the CEP is that transitions must be fuelled "from below". People have to have a maximum say in what their future will be like and there has to be much more diversity of possible alternative economic opportunities than is currently common in these programs.

The discussion about relocation as an economic strategy is closely related to the on-going debate about the value of remote and rural communities to society as a whole, and about the need for regional land-use and economic planning.

In northern Ontario for example, there is a concentrated settler population and a dispersed Aboriginal population that – until recently – has had nothing to do with mining. Mining is about the industrial economy, extracting cells of minerals that form a necessary part of the larger economy. Mining needs to be made to better serve the development needs for an entire region, through effective land use planning and decent resource rents. Questions that need to be answered in this regard are: How should the labour force for mining be organized? How will the needs of the population be met? The delivery of modern medical services requires a certain population size, as does modern education, etc. What population concentrations are needed for the effective and economic delivery of education and health services ? Development strategies, which are based on realistic mine life and environmental costs will help communities and regions figure out what portion of the mine's revenues they need to capture to meet their long-term needs. There is a literature on hub communities and clusters that is explored later in this review.

There is increasing concern that the socio-economic damage done by people living in large cities is unsustainable. In the long term, is it advisable to depopulate rural areas? Can cities be sustainable? This is an open question, very value-laden, with a variety of answers. City sky-scrapers externalize costs; small communities are ecologically more viable. This is a significant policy debate that we cannot explore here.

Economic Diversification Strategies: Business Ideas

The literature reviews a variety of business ideas that have been tried by mining communities to generate cash income. Those that we have been able to identify are set out below. (The following section "Community Economic Development" describes theory and process for how economic alternatives may be evaluated and acted upon.)

Keeping the mining sector going. By far the most successful strategy of mining communities in the short term is finding ways and means to keep the mining sector going:

- through subsidies (the Faro mine received over $1 billion in subsidies during its 30 year life (CCSG Associates, 2001);
- through finding a new ore body; and/or
- through re-mining tailings and waste rock etc.

New exploration techniques, deep mining technologies and increased geological surveys make this possible. An excellent example of this approach is the Discover Abitibi program in north-eastern Ontario.[22] It appears that once a region commits to a mine, it is committing to mining as long as the ore lasts, as the population becomes "addicted" to the income and lifestyle generated from mining (Brandt, 1995; Freudenburg, 1992). The mining industry has recently been requesting "mining zones"[23] in mineral rich areas like Abitibi.

Barbara Barndt discusses the aspects of addiction to destructive economic activities. "Gradually I concluded that the supposed conflict between jobs and the environment is often no more than an excuse to sacrifice nature to the illusion of economic improvement, while in fact few people who really need help ever benefit. And in the long run, as the environment becomes more polluted, everyone comes out worse. It seems to me that society's eagerness to accept any kind of destructive project, as long as the magic words 'jobs' or 'economic development' are invoked, constitutes a form of addiction." (Brandt, 1995, p.4)

At Balmerton, after the Gold Corp Mine was shut down by a lengthy strike, the company got rid of the union and introduced an internet-based contest to find more gold deposits. The ore reserves grew exponentially, extending the town's life. Despite the immediate economic benefits to the company and the community, questions need to be asked about the environmental and social consequences of this commitment to extending the footprint of the mine. In most jurisdictions, environmental assessment is much less rigorous in the case of extensions of existing operations. At the same time, Balmerton residents are threatened by arsenic-laden tailings in their backyards, 20,000 tons of arsenic trioxide stored underground in the closed Campbell Mine, and an arsenic plume in the groundwater steadily making its way toward Red Lake (Mining Watch Canada, 2002).

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[22] Kirkland Lake local news, March 1/03. *Discover Abitibi and NEOnet receive cash from FedNor.* Through Discover Abitibi, the Timmins Economic Development Corporation (TEDC) is co-ordinating a massive undertaking to accelerate mineral exploration and discovery in the Kirkland Lake and Timmins areas. By shoring up proven mineral reserves, it could provide for a continued and sustainable mineral exploration and mining industry in the Kirkland Lake and Timmins areas.

The venture will also provide a model cluster development framework for industry and community partnerships, which could be exported to other regions of Northern Ontario. The TEDC's goal is to attract mining investments and generate jobs by developing the three-phased Discover Abitibi project.

Already in its third phase, Discover Abitibi will utilize world-class technologies to allow the penetration of the thick glacial overburden ground cover which hindered past explorations and made some mineral deposits untraceable. Each phase has engaged participation from the mineral industry, community stake holders, academia, all three levels of government and citizens of the Kirkland Lake and Timmins areas.

Phase 1 involved community consultations and initial project scoping, while Phase 2 allowed for the completion of a comprehensive business plan. This study is one of the largest the community has undertaken. "Innovation is about turning ideas and knowledge into new products and services," Mitchell said. "By supporting the Discover Abitibi initiative, FedNor is playing a lead role in delivering the national innovation strategy in Northern Ontario and is continuing to work with community partnerships to attract investment and create economic growth."

[23] *The Northern Miner,* Vol. 88 No. 43, December 16 – 22, 2002 Turning preservationism on its head: Breaking the frame. "The principle behind the idea is that land use policies would have to recognize that the Abitibi region, which the proponents of the plan have defined as a 60,000-sq.-km area extending from Lake Abitibi southwest to Batchawana Bay, is an area of provincially significant mineral potential. It would oblige the province and municipalities to give mineral exploration and development the highest priority in any land use decision... The Timmins city council passed a resolution endorsing the idea, as a formal address to the minister of northern development and mines... A 60,000 sq. km. Abitibi Mineral Reserve would make up about 6% of the province's land area."

Re-mining old tailings, waste rock piles and mines sites, unlike new mine development, re-mining has the potential to improve the environment of the old mine, and to add value to the work that has already been done. Providing it is subjected to rigorous environmental review, this appears to be an ecologically sustainable practice.

The development of the mining supply and services sector. This strategy is possible in larger urban mining centres like Sudbury, and is being tried there. The plan is to move all training of geologists and other mining related professions to northern Ontario where the mining industry is already established, as well as to stimulate the supply and services sector. It is expected that this will create a shift to manufacturing skill sets, a more diverse range of options in the community that are transferable to other industries (Robinson, 2003).

Housing and real estate. Faced with empty and devalued housing, a number of towns, like Elliot Lake and Logan Lake turned into retirement communities. There have been some problems with this strategy. As the retirees age and become infirm, they require nursing care on a scale that is not available in remote communities. The housing provides limited repair work for the former miners and service jobs for women, and wages are much lower than previously. However, the housing strategy does enable the survival of a community. As well, the retirees, younger families and singles that move in – often artists and counter-culture individuals seeking inexpensive housing in rural settings, can bring new energy, education and innovation to the community (Halselth & Sullivan, 2000; Heard, 2000, 1996; Canadian Rural Restructuring Foundation, 1998; WomenFutures, 1993; Matthews, 1983).

Tourism – of both the eco and ghost town varieties – appears to be the most commonly tried option. In Kimberley, B.C., land that Teck Cominco has held over the decades of the mine's life has been turned over to the city to enable it to develop recreational facilities, including a ski hill, a golf course, a mining museum, and a 1000-unit residential community (Teck-Cominco, 2002; Stepens & Ahern, 2001). In other communities, there may be problems with the cultural shift required to service the eco-tourism trade, and not all communities are located in a setting or on a transportation corridor that makes this viable. It helps to be in a beautiful valley in the mountains! Allison Gill has been undertaking studies about tourism in B.C., and Susan Ryan has undertaken a case study of tourism in Wawa, Ontario (Ryan, 2002).

The Knowledge Economy and Information Technology (Internet) businesses are highly competitive businesses that have often been touted for mining communities. Polese and Shermur report that IT is unlikely to benefit remote communities without significant government intervention. They found IT does not reduce the costs of travel, as business people still need to meet face to face for many reason; that geography and low population density compound the effects of distance, and that although central rural areas (those within an hour's drive of an urban centre) can attract IT business, peripheral ones do not (Polese & Sheamur, 2003).

A case study of Glace Bay (MacIntyre, 2002), as well as a paper by Edward Jackson for the Caledon Institute (Jackson, 1987), indicate that the jobs created in the internet society are not likely to benefit the people who have lost their jobs with the mine, although they may attract a new population.

"In Canada today, as in most developed countries, technology-cluster growth has gained a privileged position in economic policy discourse and practice… It is, above all, a concept underpinned by science and technology and not by social dimensions… There is embedded in this framework a kind of knowledge-worker elitism that sees employee recruitment and retention issues as only involving highly educated and well-paid software engineers, scientists, consultants and business managers… Who then is

out? Basically, low-income, less educated citizens and the non profit organizations that serve them…" (Jackson, 1987, p.2-3)

This view is disputed by other authors such as David Robinson, who supports a mining technology cluster for Sudbury. "Like it or not, the "low income, less educated citizens" are dependent on the more educated who capture part of the stream of rents." He says it is important not to dismiss the work that is being done to identify the sources of economic growth and development in these communities.

Other resource economy projects: forestry, water, agriculture. Where the resources exist, expansion into other resource-based industries presents an attractive option for mining towns. Revelstoke has developed a community forestry project (Centre for Community Enterprise, 2000). The Temagami Stewardship Council seeks to expand forestry income in the area (Laronde & Harris, 1991). The North Shore Tribal Council is entering into a small scale hydro-project. One of the projects investigated by Uranium City before it closed was a pig farm; Sudbury almost had an angora goat project; Kitimat is now selling hydro instead of processing aluminum. Some mines in Manitoba are growing vegetables and/or marijuana in the shafts. The degree of environmental degradation left behind by mining, especially of water resources, will have an impact on the ultimate viability of any future resource-based economic efforts.

Hazardous waste disposal appears as an option for some mining communities. The Adams Mine in Kirkland Lake and the plan by Copper Beach Estates to use the closed Britannia Mine for hazardous wastes, are short-sighted plans that have required communities already exhausted by closure to mobilize and fight. Bullard's research in the US is applicable to remote areas of Canada. He explores the history of tensions between the three competing agendas of environmentalism, economic blackmail, and civil rights in Appalachian mining communities (Gaventa et al., 1990) to see how these tensions led to a preponderance of toxic and dangerous industries in black communities, including "moonlight waste dumpers" and large commercial hazardous waste landfills. He points out that "most black communities do not have the organization, financial resources or personnel to mount and sustain long-term challenges to such unpopular facilities."

Government decentralization or relocation of services such as education, health, regional services, penitentiaries can stabilize a community. New Dawn Enterprises in Cape Breton has shown what can be accomplished by the community take-over of service sector activities such as nursing homes. Elliot Lake has a detox centre (MacIntyre, 2002; MacLeod, 1997, 1986; Ross & Usher, 1986).

A service centre for the Aboriginal community. In 1987, Canada Mortgage and Housing Corporation paid for David Walker to do a report on Lynn Lake. Three to four Aboriginal communities had most of their members move there to access services, and some ended up living in the dump. The town set up a Housing Authority and became a service centre for the Aboriginal communities (Veiga et al., 2001).

The Elliot Lake Field Research Centre employs a few people with GIS capability working on mine reclamation.

Thompson, Manitoba is doing cold testing of cars.

Sudbury has developed a neutrino observatory.

Atikokan has the Quetico Centre and has stocked the open pit with fish.

Tumbler Ridge has recently found dinosaur footprints.

The informal, underground or invisible economy:

"Through years of economic decline, unemployment and high taxes, the people of Glace Bay learned their own set of economic survival tools. Their tools encompass a variety of overt and covert activities of exchange and trade. They make up the informal economy." (Gertrude MacIntyre, 2002)

Barabara Barndt makes the following assertion about the limitations of traditional economic analysis: "Since money is a linear system of measurement, it provides only two possible criteria for making judgments: more is better and less is worse. Furthermore, the assumption that only activities that produce money are worthwhile – and that more money means more value – ignores the value or existence of economic activities that don't produce and may not even use money. As modern economies rely on solely monetary criteria for making judgments and policy decisions, they increasingly eliminate information about the complexity and quality of life." (Brandt, 1995, p.80)

The informal economy includes everything from the work of the family and reproduction, unpaid domestic services like child care and elder care, to sharing garden produce, home made beer, wild game and other household production, Community Shared Agriculture, flea markets, volunteer activities for public good, barter, paying for work "under the table", and illegal activities like prostitution and drug trafficking.

People that move into rural communities drawn by the inexpensive housing and closeness to nature, are often supporters of the informal economy and values like voluntary simplicity. Many of them are artists, craftspeople, and "jacks of all trades". They are resilient, and bring education, theory, and a real economic contribution to the existing population. Grassroots Economic Opportunity Development and Evaluation (GEODE) in Sudbury (Kuyek, 1990) was set up to stimulate the legal aspects of the informal economy and there are other examples in many former mining towns in the Maritimes (MacIntyre, 2002), Yukon (Cleghorn et al., 2002), northern Ontario, Quebec, and British Columbia.

Some formal measures of economic growth and decline may be inaccurate because they fail to take into account shifts of production between the formal and informal economy.

The "conservation economy" is another variation on the informal economy, which is based on valuing the services provided by nature. Ecotrust Canada, a west coast-based NGO, is undertaking research and economic development work in communities to cultivate "conservation economy... as an *outgrowth* of a healthy community, as well as a *means* to a healthy community." (www.ecotrust.com)

Community Economic Development – Theory and Practice

Gaventa points out that "the fact that the roots of economic problems are national in scope does not diminish the importance of efforts to establish alternative economic institutions and programs at the local level." (Cominco Ltd, 1984) MacIntyre writes: "CED is essentially a set of renewal strategies for coping with global restructuring." (2002)

Community Economic Development is an entire literature of its own, with its own axial debates. We have included literature recommended to us by academics and practitioners in the field (MacIntyre, 2002; Bruce & Halseth, 2001; Halseth & Booth, 1998; Roseland, 1998; Conn & Alderson, 1997; Shragge, 1997; Broadhead, 1994, 1990; Bryant & Douglas, 1994; Douglas, 1994; Gallaway & Hudson, 1994; O'Neill, 1994, 1992, 1990; Perry & Lewis, 1994; Fontan, 1993; Kretzmann & McKnight, 1993; Favreau & Ninacs, 1992; Nozick, 1992; Economic Council of Canada, 1990; Gaventa et al., 1990; Perry, 1989, 1987; Lockhart, 1987; MacLeod, 1986; Ross & Usher, 1986) The common theme is that

"capitalist societies, particularly advanced industrialized capitalist societies, are in the process of undergoing some important changes, shaped by globalization of the economy and related changes in the state. As a consequence, and related to the specific context of each country or region, new practices have emerged and new importance is accorded to the 'third sector' or social economy." (Shragge & Fontan, 2000)

CED is concerned about creating viable, ecologically responsible, long-term communities.

The key difference in the literature and practice of Community Economic Development is between those who accept the dominant economic model of attracting outside investment and focus on individual small business stimulation as a development strategy, and those who focus on "the organization of communities to gain more control over their own destinies" (MacIntyre, 2002). The former are concerned with entrepreneurship, job-specific training, markets and loan funds. The latter perspective leads practitioners to focus on community development strategies including cultural and social life, retaining wealth within a community, looking at import replacement strategies and at local (and often cooperative) ownership and control of business enterprises. Generally speaking, most practitioners only apply the CED label to the latter model and refer to the former as "Small Business Development" (SBD).

SBD usually has these characteristics;

- Provision of a loan fund for small business, either provided by the company or government. Access to the fund is dependent upon the writing of a Feasibility Study and Business Plan, which are developed with the assistance of a small business development counsellor or trainer. The Board of the loan fund is usually drawn from those people who are already the most powerful in the community.
- Training or mentoring support for entrepreneurs. This is usually provided by "successful" professionals in the community, perhaps from the mining company, the bank, or an educational institution.
- Support for a secretariat or Community Economic Development Corporation.

SBD is the accepted strategy of the Community Futures Program of Industry Canada and the Aboriginal Economic Development Program of Indian and Northern Affairs Canada. An evaluation of these two programs has recently been completed, but has not been made public at the time of this review.

CED, in addition to the SBD activities, also integrates concern about social, environmental and economic effects, seeking development policies that will not displace the poor or depopulate rural areas, producing socially useful products, and seeking activities that heal, rather than consume the environment (Polese & Sheamur, 2003; MacIntyre, 2002; Ross, 2001; Nozick, 1992; Broadhead, 1990; Perry, 1989, 1987). The cooperative movement and worker ownership are key strategies for a number of practitioners (Conn & Alderson, 1997, 1988; MacLeod, 1997, 1986; Brandt, 1995; Fairbairn et al., 1991). Equally important are strategies to build community cohesion and skills.

Although no CED practitioners will eschew business development, many of them think that much small business development is in fact the expropriation of work that is carried on as mutual aid or barter in the informal economy into a wage economy; for example, caring for children and the elderly, producing food stuffs at home, car repairs, etc. They do not view this transformation as "progress', but as doing damage to the fragile social fabric of the community. The Glace Bay case study in The Third Option (MacIntyre, 2002) details the extent of the informal economy in this mining town. Barbara Brandt (1995) discusses this problem, as does Marcia Nozick (Leadbeater, 1997). If the extent to which people survive mine closure is dependent on generalized skills and access to non-monetarized livelihoods, then consideration of these factors is crucial.

CED practitioners are keen to create forward momentum in the local community. People need some tools and some hope to get up in the morning and think about their life in a positive way. They ask questions like: How do you generate a balance between the legitimate and important policy critique and forward motion? What are the community assets? (Brown, 2002; Kretzmann & McKnight, 1993) They look at the existing population and ask what are the assets of the older workers?

They develop a core of people who want to be involved and then ask, with this core of people, what can you do? Could you intentionally create some networks to test various options? How do you link those people to information and ideas? What is the job generator in addition to housing and services, which are all important, but what else is there? They look at opportunities and needs such as environmental monitoring of the closed mine. Is a business involving environmental protection and monitoring possible? Could those services be exported to other sites?

CED practitioners know that the failure rate of small businesses is huge, especially when the mine has just closed. How are/were mining wages used to start small businesses or purchase real estate in the town? To what extent are they being used to provide private capital for ventures that just return these hard earned savings to the bank? CED alternative strategies look at ways and means to "tether the loose foot of capital" (MacIntyre, 2002; WomenFutures, 1994).

MacIntyre writes: "In fact, experience indicates that most communities, especially marginalized and depleted ones, do not have the skills, knowledge and expertise to pull themselves up by their own bootstraps. Some have neither straps nor boots. And community development cannot proceed effectively if the political climate makes self-help efforts difficult or if those in power subvert, co-opt, bypass or neutralize individuals and groups seeking change." (MacIntyre, 2002) CED practitioners focus on organizing, conflict resolution and community building, as well as drawing the links between protest and advocacy and economic development (WomenFutures, 1993; Kuyek, 1990; Alderson & Conn, 1988; Heartland Centre for Leadership Development, 1989).

After relating stories from miners and their families about living the crisis as the Appalachian coal mines shut down, Mike Yarrow (Gaventa et al., 1990) ends with an assessment that "the type of future that miners and their families are struggling to create… remains largely undefined. Since the coal industry has so visibly shaped their region for its purposes, they have great difficulty imagining a future to fight for if their coal is no longer in demand. Perhaps the material conditions for imagining such a future are increasing communication with communities that face similar crises in different regions, countries or industries and have found promising ways to proceed."

There are now some excellent "how-to" manuals for CED, and a few organizations around the country that provide education, analysis and research in support of this work:

The Centre for Community Enterprise has developed the Community Resilience Manual, which provides an array of 26 sets of perceptual indicators, that can be used to predict how people in a community will react to adversity and can be used as an organizing tool (Centre for Community Enterprise, 2000). Where the Manual has been used in Australia and New Zealand it has accurately predicted community behaviours and stimulated effective community response. he CCE also provides support to communities that want to engage in the CED process, and manages a web-based network, called CEDWorks, and publishes Making Waves. *The CED Network* is made up of practitioners across the country. They can be accessed through www.canadiancednetwork.org.

The University College of Cape Breton has a Community Economic Development Program and has published The Third Wave. Based in the coal and steel industry experience of the region, the study is the

most directly pertinent to mining communities wishing to engage in CED. (MacIntyre, 2002) www.uccb.ca/ced.

The Concordia University Institute for Management and Community Development provides training for practitioners. Eric Shragge (Shragge & Fontan, 2000; Shragge, 1997) is the Chair of this program. http://instdev.concordia.ca.

Algoma College's Community Economic and Social Development Program works closely with First Nations in northern Ontario. www.auc.on.ca/ (There are other institutes that specialize in Aboriginal community development issues which we have not researched here.)

Carleton University's Community Economic Development and Technical Assistance Program works with 120 projects across the country. *CED Across Canada (CEDAC)* is a member-only knowledge network portal: www.cedcanada.ca.

The Simon Fraser University Community Economic Development Centre also provides training, support and publications for practitioners: http://www.sfu.ca/cedc/.

WomenFutures in British Columbia provides women's participation in community economic development, through workshops, research, consulting, publication of women's CED materials and the operation of the WomenFutures Loan Guarantee Fund. WomenFutures Community Economic Development Society, 217-1956 West Broadway, Vancouver, BC V6J 1Z2.

Government Programs and Practices – Policy Recommendations

The difficulties for mining communities facing closure are often compounded by inappropriate, non-existent or punitive social policies from the federal and provincial governments.

One study is particularly informative (both because it is relatively recent and because of its level of detail): the final Report of the Community Response Sub-project of the ELTAS study, by David Leadbeater (1998). Leadbeater looked at the pattern of government intervention at Elliot Lake after the lay-offs were announced in the early 1990s. There was no serious preliminary preparation undertaken in the community or by government prior to the lay-off announcement. The largest financial flows from the federal government were social transfer payments – CPP, Old Age Security, Employment Insurance Child Tax Credit, GST Credit. The only other federal initiative was $10 million in training funds (1990-1993). In fact the federal government actually down-sized and withdrew operations from Elliot Lake during the lay-offs (AECB and CANMET).

The provincial government also had transfer payments to Elliot Lake – Social Assistance, Workers Compensation, and Provincial Tax Credits – but they also made two major commitments: $15 million for economic diversification and $250 million from Hydro funds (some to subsidize the only remaining mine, since shut down, and some for a variety of measures including economic diversification and municipal debt repayment).

Leadbeater notes that despite a lot of rhetoric about wealth creation, regional data on business start-ups, closures etc, was not (and still is not) collected in any systemic manner, and it is not possible to measure NET employment, income or wealth creation. However, Government intervention at least appeared to enable the stabilization of private business activity, and the funding of municipal debt retirement prevented the town's bankruptcy.

He concludes that despite a number of reports and recommendations to government about mining communities from 1980 into the 1990s, very little has been implemented "in fact one can observe a near-abandonment of federal responsibility in the economic development of single-industry towns." Government support to these communities generally includes loan capital, stimulating private entrepreneurship and funds for increased labour mobility. To the extent that government funds work with the CED model, they have been able to assist communities to stabilize themselves.

Other problems result because communities are in competition with one another for government funds, instead of communities working together.

A key government program that provides resources to mining communities in Canada is the Community Futures Program. Administered through three regional branches of Industry Canada – FEDNOR, WED, and ACOA – it assists hinterland rural communities to strengthen and diversify their local economies through economic development at the community level. CED officers work with community partners, and support a network of Community Futures Development Corporations (CFDCs) in most rural regions of the country. CFDCs are incorporated non-profit organizations governed by a local volunteer board of directors that represent various community interests. Community Futures provides resources for building the capacity to adapt to and manage economic change, including development of people, organizations and infrastructure. CFDCs employ professional staff to work with their partners to assemble and co-ordinate the necessary skills and funds to plan and complete projects that build the foundation for a stronger local economy as envisioned in the community plan. They also provide advice, information and referral service to local businesses and entrepreneurs. CFDCs also provide access to capital for small business financing by operating locally governed investment funds, that can provide loans, loan guarantees or equity investments for business start-up, expansion or stabilization. A network of Community Futures Development Corporations can be found at www.communityfutures.ca.

Indian and Northern Affairs Canada runs a number of programs that are aimed at economic development for First Nations and Innu and Inuit and for northern communities. Some of these are specifically aimed at helping these communities become involved with, and benefit from, resource development. The following is a brief overview of these programs.

Economic Development – Innovation and Knowledge: The goal of this program is to promote economic development in the North and the development of northern economic institutions specifically with respect to the "innovation and knowledge-based" economy. Individuals, for-profit and not-for-profit organizations, northern governments and other non-federal entities are eligible for this funding. The budget is $350,000 per year for each territory through 2004. It is to cover 75% of the costs of a project.

Resource Access Negotiations Program: This program funds activities that will lead to the creation and early implementation of agreements (other than joint working agreements) to: access business and employment in major resource projects; attract investment in on-reserve natural resources; access off-reserve natural resources; manage off-reserve natural resources. It is specifically targeted at First Nation, Inuit and Innu communities. First Nations governments, representative organizations of Innu and Inuit communities and tribal councils and other organizations mandated to carry out projects on their behalf are eligible. Program funding is a maximum of $200,000 per project and recipients must cover 20% of the costs of their project.

Resource Partnerships Program: This program funds activities leading to the creation of joint working agreements aimed at enhancing Aboriginal participation in resource development. First Nations governments, representative organizations of Innu and Inuit communities and tribal councils and other organizations mandated to carry out projects on their behalf are eligible. The program will fund up to 90%

of partnership conceptualization activities but not more than 50% of other eligible activities under this program.

Regional Partnership Fund: This program supports First Nation, Innu and Inuit participation in major regional economic development initiatives through the support for the development of economic infrastructure. First Nations governments, representative organizations of Innu and Inuit communities and tribal councils and other organizations mandated to carry out projects on their behalf are eligible. The program will cover up to two-thirds of the total project costs.

Equity Programs: The Equity Programs cover the Economic Development Opportunity Fund, the Resource Acquisition Initiative and the Major Business Projects Program. The programs provide matching equity funding for debt financing for start-ups, expansions and acquisitions. First Nations, Inuit and Innu businesses may apply through their Community Economic Development Organizations. Program contributions cannot exceed $3 million per project and various conditions apply to determine the per cent amounts that INAC will contribute to projects.

Some of these programs are currently undergoing an evaluation.

Recommendations regarding policy change

"Increasingly, international organizations such as the OECD, national policy makers and the public are engaging in a urgent debate about the need to promote more sustainable forms of production and consumption. This debate encompasses questions about the economic value of the environment and the highest and best use of land and water. It addresses questions about social sustainability, how economic activity impacts on individual and community health and well-being. And this debate informs policy discussions about improving resource conservation, removing perverse subsidies that promote unsustainable economic practices, the role of subsidies in international trade, environmental tax shifting, and rethinking "distorting methods of calculating national wealth that largely dismiss resource wealth and ecological goods and services" (MiningWatch Canada 2002, p.10).[24]

The need for sound and complete data to enhance public knowledge and debate and inform policy makers underlies discussions about social and environmental sustainability and the need to develop more accurate means of measuring national wealth than the traditional GDP. Mining has been portrayed as a sector that "built" Canada. The industry commonly refers to this history while asserting its continuing importance to the Canadian economy. But the industry must now also face questions about its role in the pollution and depletion of Canada's natural resources. And, whereas government subsidies were once viewed as laudable support for a key industry, there is now growing recognition that exploration and extraction subsidies in fact distort resource market prices and promote primary resource consumption instead of conservation. There is also a growing question about the "legality" of government subsidies to mining in the context of Canada's international trade agreements. Finally, a debate is emerging about whether public money should be spent to subsidize mining when investment in other types of economic activity may provide for more sustainable uses of natural resources and more sustainable employment in remote communities now facing the disruptions of boom-and-bust cycles in mining. " (MiningWatch Canada and the Pembina Institute, 2002)

A number of other issues around government policy are raised in the literature.

[24] The OECD report referred to is that of the High-Level Advisory Group on the Environment to the Secretary-General of the OECD; November 25, 1997. http://www.oecd.org/subject/sustdev/hlage.htm

(MacIntyre, 2002; Halseth, 2000; Leadbeater, 1998; Lansbury & Breakspeak, 1995; Robinson & Bishop, 1998; Young & Sachs, 1995; Galaway & Hudson (eds.), 1994; Lockhart, 1991, 1987, 1985; Broadhead, 1990; Canada Employment and Immigration, 1990a, 1990b, 1989; Indian and Northern Affairs, 1990; Canada Employment and Immigration Advisory Council, March 1998; Decter, 1989; Keyes, 1989; Locke, 1986; Savoie, 1986; Canadian Association of Threatened Single Industry Towns, 1985; Department of Energy, Mines and Resources Canada & Energy and Mines Manitoba, Sept. 1985b)

Following is a summary of policy issues for federal and provincial governments:

- The need for land-use and economic planning on a regional basis to ensure that resource wealth is shared, that natural capital is protected and that ecologically sound uses are retained on the land base;
- The need for regulation, monitoring and enforcement of environmental laws and regulations affecting mine operations before and after closure;
- Research, monitoring and analysis of health impacts from the mining operation before and after closure;
- The need for adequate and secure reclamation bonds on all mining operations; history and analysis of how they affect diversification, remediation, who pays?
- Research about and protection of the tax base when the mine is closed; and/or protection of the town from bankruptcy;
- Planning for infrastructure maintenance – roads, rail, sewer, water, energy when they were linked with the mine infrastructure;
- Early planning for closure – development of community/company/government committee to plan what will happen at closure;
- Resources from government to do CED – at least comparable to government investment in new mines;
- Review of transfer payment policies, such as EI and Workers compensation for accessibility and efficiency from point of view of the community;
- Re-introduction of appropriate industrial adjustment packages;
- Public discussion and review of federal DIAND and regional economic development programs like Community Futures (the evaluations must be made available) and the Manitoba Community Re-Investment Fund;
- Macro-economic policy concerns: review of incentives to the mining industry in the light of costs after shut-down, environmental and social costs.

Case Studies

There are only a few publicly-available case studies; most case studies are a snapshot of one period in a town's life, and some are quite inadequately researched. There is a real need to revisit these communities to see what has happened. In some cases, the previous study might provide a good base line.

There are other case studies that belong to government departments, First Nations and private interests which we have not been able to review. As well, there are documentaries prepared for radio, film and television which have not been included here. The NFB has a film on Britannia; the CBC has recently undertaken documentaries on Murdochville and Uranium city.

We found published case studies of the Canadian communities listed below. The date they were done is shown in brackets. There are five other studies that we know of that are underway at the present (New Waterford, Arctic Bay, Springhill, Tumbler Ridge, Raglan Mine).

- Balmerton – 1980 (Anderson Associates Ltd., 1980)
- Griffith Mine – 1985 (Anderson Management Services Inc., 1985)

- Ross River – 1992- (Weinstein, 1992)
- Nansivik – 1980 (Aspen Institute, 1996)
- Lynn Lake – 1986, 1987 (Walker, 1987; Barrett, 1986)
- Schefferville – 1983, 1983 (Bradbury, 1984; Bradbury & Martin, 1983; Bradbury & Wolfe, 1983)
- Tumbler Ridge – 1984, 1986, 2000 (Halseth, 2000; Halseth & Sullivan, 2000; McGrath, 1986; Bugden, 1984; Hobart, 1979)
- Polaris – 1982, 1984, 1987 (Cominco Ltd., 1987, 1984; Giegerich, 1986; Graham, 1992)
- Elliot Lake/Serpent River – 1992, 1996, 1998, 1999, 2000 (Rekmans et al. (eds.), 2003; Heard, 2000, 1999, 1996; Pong et al., 1999; Leadbeater, 1998a, 1998b, 1998c, 1997; Mawhiney & Pitblado (eds.), 1998; Robinson & Bishop, 1998; Leadbeater & Powell, 1997; Porter & Neizert, 1997; Mawhiney, 1993; Farkoun, 1992; Bowles, 1982)
- Sullivan – 2001 (Teck-Cominco, 2002; Horswill, 2001)
- Uranium City – 1982 (Parsons & Barsi, 2001)
- Marathon – 1986 (Nelson et al., 1986; Reid, 1986; Project Mayday, 1985)
- Pine Point – 1986 (Anderson Management Services Inc., 1986)
- Sudbury – 2001 (Robinson, 2003; Archibald, 2001; Bray & Thomson (eds.), 1992)
- Glace Bay – 2002 (MacIntyre, 2002)
- Sterco – 1986 (Berg, 1986)
- Westray – 1998 (McCormick (ed.), 1998)
- Asbestos – 1967 (Bowles, 1982)
- Flin Flon – 1980- (Luxton, 1980)

Recommendations for Organizing for Change

We found that most of the literature – with the exception of literature published by mining watchdog organizations like ourselves – did not address the particular problems of organizing for change in mining communities. The MiningWatch Canada and Yukon Conservation Society publications do address these issues (Cleghorn et al., 2002; Kuyek, 1990; Mining Watch Canada, 2002, 2000; Mining Watch Canada & The Assembly of First Nations, 2002; Mining Watch Canada & The Innu Nation, 2001), as does an entire literature on community development and community organizing that is not included in this review.

From the general literature, the following points about community organizing can be drawn out:

- ß People need to feel like they have control over their lives
- ß If people feel there is hope they will be more likely to become involved in activities for change
- ß Social and cultural events and experiences can build social energy and resilience, may help a town survive
- ß Frequently, towns that are undergoing a traumatic event, need time to grieve and commemorate what they have lost
- ß The community organizing components are clearly:
    - o Leadership: what kind? Where from? Building a core group
    - o Community divisions and splits – structure of change organizations
    - o Capital and financing for development: sources, and dealing with banks and other institutions pulling out
    - o Building capacity and skills
    - o Research to identify opportunities and ideas that work and how to get there

Organizing to affect macro-economic policy is equally as important as organizing at the community level. Mining does produce economic benefits and opportunities, but how can society capture some of

these benefits and opportunities for workers and families, communities and regions in the long run? Shaping macro policy is a job for all Canadians, and is linked to other strategies for the environment, social justice and economic security in Canada and elsewhere.

The mining industry takes the position that the creation of wealth from mining converts nature's capital into social and human capital. "The Sullivan Mine converted nature's capital ore in the ground to financial, social and human capital that will sustain a community and its people for years to come." (Teck-Cominco, 2001-2002) If this is the case, then what proportion of capital is captured by the workers and community, how much by federal and provincial governments, and how much by the shareholders of the company?

What role can communities play (and what types of communities) to capture these benefits and protect their interests? What is the leverage that communities have to negotiate?

Strategic environmental assessment and cumulative impact assessments have the potential to provide leverage to communities and regions trying to protect their long-term future, and it is important to protect and expand this tool.

Communities need understanding and support from the urban population to challenge economic plans that they do not't want. When Toronto garbage was going to be dumped in the old Adams Mine in Kirkland Lake, the forces that came together to make the northern (opposition) voices heard included those who were concerned about potential liability costs to the City of Toronto.

Equity in joint ventures may enable communities to be obstructive when they have to, in order to slow things down, or to get what they need in negotiations.

Some Aboriginal communities have been successful in capturing these returns through treaties with governments and agreements with companies like Impact Benefit Agreements. However, most of these agreements are confidential, which has had mixed effects. To what extent do Impact Benefit Agreements contribute to effective regional land use planning and the management of cumulative effects? If Aboriginal Communities have adequate lead time to negotiate land claims and environmental protection, they can build equity into their economies, but they are frequently rushed into decision-making, with inadequate understanding of human resource development and other things that need to be in place to take advantage of the mine income.

There are many levels and degrees of organizing activities. At the most basic level, information has to be assessed and made available to communities in a language and form they can understand and work with.

Section 2: No Rock Unturned:

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Section 3. No Rock Unturned

Sampling of Relevant Literature

Sampling of Relevant Literature:

Bartsch, W. 1983. *Exit with Excellence: How One Unusual Shutdown Transformed Mining Traditions*. Quetico Press: Atikokan, Ontario.

This document is a description of an iron ore mine closure process in Atikokan, Ontario, published three years after the closure. It is written from the perspective of the company, and of the staff of the now defunct Quetico Conference and Training Centre who were engaged in the planning process for the closure. The publication asserts that this "strategic shutdown" "penetrated a sphere of organization effectiveness that will stand as a model into the 21st century."

Praise is given throughout this document to the Caland Ore Company and the top staff of the Quetico centre for having accomplished a closure without the usual "shutdown fever", "angry strikes", and "loss of productivity" that characterize many mine closures. While Caland employees are given credit for having "embraced" the program, it is clearly a document that sees management as having "broken the rigid molds" that usually make closures confrontational. The document also claims that, throughout, the company "maintained high concern for the economic impact on Atikokan, a community of 5000." The "hard economic" benefits to the company of this apparently conflict free process are highlighted several times. The document notes that "people stayed on at the mine till the end; productivity exceeded programmed tonnage levels; and the actual shutdown was achieved at cost lower than budgeted."

All of this was achieved through defining a philosophy statement, numerous training sessions, the realization that there is such a thing as "organization culture," teamwork exercises, and the application of something called the "Managerial Grid." This publication places a lot of emphasis on the processes and procedures that were put in place and the "cultural changes" that were necessary to make sure the closure went smoothly and profitably. Emphasis is on a win-win for the company and the employees.

Minimum impact on the community and alternative economic development are notes as goals of the closure process, but these receive much less attention in this publication. There is no elaboration on how these goals will be achieved. The Quetico centre since struggles to survive. A follow up project to study post-closure impacts on the community would be useful.

Bowles, R.T. (Ed.) 1982. *Little Communities & Big Industries: Studies in the Social Impact of Canadian Resource Extraction.* Butterworths: Toronto.

This book, which is primarily a sociology of small communities, contains an introduction by the editor and 12 chapters by various authors, including a front end contribution by Alex Himmelfarb. The book is divided into three parts: Setting the Stage, Planning Perspectives, and Case Studies. The 8 case studies include mining case studies on Cobalt, Ontario; Flin Flon, Manitoba; coal mining along the Edmonton-Yellowhead route; Asbestos, Quebec; Elliot Lake, Ontario; and Coppermine, NWT. Section 2 focuses on the history and evolution of Canadian resource towns from a planning perspective.

The basic issues addressed in this volume remain current. It recognizes throughout that small Canadian settlements have always been shaped by large enterprises controlled by metropolitan centres. These issues include the various definitions of "community" in the context of transient mining operations, outside perceptions of the nature of small rural communities, the significance of defining characteristics such as small size, dependence on a single industry and geographic isolation, the nature of social relationships in small single industry towns, concerns about dependency and lack of empowerment, etc.

As Bowles, puts it, each chapter can be read as a case study, as his focus has been to ground the discussion in the realities of concrete communities. This provides rich data, in some cases baseline sociological information, that would allow for interesting comparisons with current realities in these towns and an analysis of change over time.

Bowles, R.T. 1981. *Social Impact Assessment in Small Communities: An Integrative Review of Selected Literature.* Butterworths: Toronto.

Bowles identifies the central focus of this book as "local patterns in small communities and the way in which they are changed by the construction and operation of large projects." Bowles does not assume that large scale industrial or resource development in a small community will necessarily be positive, even if some members of the community will be advantaged through employment. He notes that much that is of value to the residents of small communities may also be lost.

Throughout the book Bowles asks what the impacts of large scale development are on social life of small communities and he asks what the social characteristics are of a community that will affect its ability to mediate and control these impacts. Bowles advocates for a high level of informed community involvement in the planning phases of a project as one way to promote the chances that a project will provide more gains than losses for the community. Social Impact Assessment is described as a way to establish a social baseline before a project starts, a way to describe the activities of the project that will affect the social life off a community and forecast the patterns of social activity that will likely derive from the project.

Bowles sees the SIA process as a possible way of empowering communities by engaging them early on and by offering them a chance to help shape a project and mitigate its potentially negative impacts.

Brandt, Barbara. 1995. *Whole Life Economics: Revaluing Daily Life,* New Society Publishers, Philadelphia.

This challenging book describes a new economic paradigm that more fully meets human needs, supports community and personal relationships and is more respectful of the natural environment.

"The economy is not something 'out there' understandable only to the experts. You and I create the economy everyday, in the course of our daily lives, with our minds and bodies, our hearts and souls, our skills , our dreams and our values. We create the economy out of the feelings we have about ourselves and our own worth, through our relationships with each other and through our connections to the natural world. And if we create the economy, this also means we can change it, through the activities of our daily lives." Brandt sets out to demystify economics and to guide the reader into taking action to restructure economic life.

The book explores two dynamics in particular: economic addiction and economic invisibility. She states that we do not set limits on or say no to our consumption, based on a belief that more is better. A central example is consumption which sets us a circle which depletes the natural environment and threatens our health. Economic invisibility refers to the fact that many activities that are essential for human well-being are no considered part of the economy: from reproduction and child care to non-monetarized food production. The services provided by the natural environment are also invisible to the economy.

The book provides a number of ideas for people anxious to change the economy, from mutual aid and barter to voluntary simplicity and the creation of "empowering" businesses.

Bray, Matt and Ashley Thomson (Eds.). 1992. *At the End of the Shift: Mines and Single-Industry Town in Northern Ontario.* Dundurn Press Limited: Toronto and Oxford.

This volume on single industry towns in Northern Ontario is based on papers presented at the second annual Institute of Northern Ontario Research and Development (INORD) conference held at Laurentian University in 1990. Together, the papers present a history of the establishment of mining towns in Northern Ontario, and the "boom and bust" cycles that have characterized them.

The authors recognize that "[u]npredictability has been the only certainty for Northern Ontario's Mining communities." (ix) The volume focuses on historical and current strategies and efforts of communities and governments (particularly after 1945) to deal with the inevitable closures of mines in communities that have been shaped by mining and have become dependent upon the industry. The authors raise the question of how to lessen the need for government assistance and achieve economic diversification in the region. They question whether communities created around mining should be "artificially maintained" with government assistance and whether fly-in/fly-out communities may be a better solution in the future.

C.M. Wallace's front end contribution to the volume is valuable both as a review of the history of the development of northern towns and as a review of the academic descriptions and analysis of these towns that have evolved amongst once-removed theorists. Wallace notes a common thread throughout these studies namely, "[t]he unstated assumption is that the towns themselves are problems to be solved, rather than complex communities to be understood." Importantly, Wallace recognizes that few studies follow communities "to their extinction" and few track the evolution of their institutions and structures over time. He also asserts that the few good studies that have been done on northern towns show them to be more characterized by their differences than their similarities.

Part II of the book provides historical case studies (late nineteenth to early twentieth centuries) from the Sudbury area; part III looks at the 1950s-1970s time frame, considered the "era of government intervention" and includes important discussions of government responses to health and safety issues; part IV provides case studies of the challenges around mine closure that were being faced by Elliot Lake, Kirkland Lake and Temagami at the time of publishing; and part V looks at possible future developments.

In the introduction to part V the editors note that "the fortunes of Northern Ontario's mining industry continue to be unstable, and the future of the region's communities is also uncertain." It is recognized that the economic diversification example set by Sudbury is largely based on a critical population base that is not typical of other northern communities. The editors conclude by wondering whether the "solution" for the future may lie in avoiding the development of new towns by flying workers in to northern mine sites.

Cleghorn, Christine, Natalie Edelson, and Sue Moodie. 2002. *Gaining Ground: Women, Mining and the Environment,* Yukon Conservation Society, Whitehorse.

The book starts with a quote: "We are still living the impacts two generations later and the mining is long gone." The book came out of the notable absence of information on how the mining industry affects women, their families and the communities in which they live. In September 2000, a two-day workshop brought together women from Yukon communities affected by mining and outside experts in health, science and social services to reflect on the impacts of mining on their lives, and to come up with

ideas for positive action. A literature review and a series of in depth interviews were also conducted. The report brings this information together.

The report looks at the connection between women, economy and environment and makes reference to the work of Marilyn Waring. It critiques the process of environmental assessment which tends to exclude traditional knowledge and impacts on women. It analyses the relationship between feminism and environmentalism, and links this to a specific analysis of the presentation of women in the Yukon. It looks at the specific experiences of women in the Yukon in terms of unpaid labour, as homemakers, as harvesters, and as paid workers. It makes the links between the culture of mining towns and violence against women, and heavy drinking. It ends with a statement challenging irresponsible mining practices, and vowing to work for change.

De Echave, José. 2001. *Minería y Comunidades: Construyendo un Proceso de Toma de Decisiones Frente a Operaciones Mineras*, CooperAcción, Lima, Peru

This document is a significant contribution to the complex relationship between large scale mines and communities. CooperAcción is a Peruvian NGO that has had a Mines and Communities Program for some years, monitoring mining areas, examining specific conflicts and analyzing the global trends in mining. Dr. de Echave is an economist trained at the Sorbonne.

Mining is of paramount importance in Peru, and Canadian multinationals own many of the mines.

The report first analyzes how mining has evolved in the 90s world wide, identifying main trends, including approaches to communities. the main part of the report presents the results of a survey of community dwellers and strategic planning workshops conducted in three distinct mining areas of Peru: Vicco, Yauli and Tintaya Marquiri. Based on this research, the report then sets out guidelines for developing a community-level decision-making process to address mine operations.

The findings about community dweller perceptions about the affects of mining indicated that only 6.9% felt poverty had decreased; only fifteen percent felt the destruction of natural resources had decreased. Fifty-four percent believed water pollution had increased. Forty-nine percent felt community dwellers were leaving the area, while forty-two percent said there were new people moving in.

They found that “Communities… typically address their relationship with mining companies unprepared, without definite objectives and strategies. Their approach for addressing the presence of mining companies is characterized by lack of information, resources, advice, and the concept of handling of scenarios, as well as by inadequate organizational structures… all these aspects produce a framework of great uncertainty and vagueness, which is usually used by mining companies to exert pressure so agreements are quickly entered into by the communities.” The report recommends that there be strong and legitimate stakeholders at the table, and that communities shift from a compensation-oriented approach to a development-oriented vision for their community. They recommend strongly that communities work together strategically to deal with mining issues.

Fung, Archon, Tessa Hebb, and Joel Rogers. 2001. *Working Capital: The Power of Labor’s Pensions*, Cornell University Press

This book takes a macro-economic look at the potential role that “deferred wages,” worker’s capital in pension funds, could play in promoting workers’ values. Hebb notes in her introduction, “at $7 trillion (Anand 1998), pension funds are the primary drivers of today’s financial markets in the United States

and around the world." The contributors to this book look at how this tremendous resource may be harnessed not only to provide strong financial returns for its beneficial owners, working people, but also to promote decent jobs, wages, benefits and healthy communities. The book argues that current investment strategies for pension money in fact undermine workers by encouraging growth through layoffs, mergers and acquisitions, plant closures, off-shore job flight etc. The book asks the question "[c]an workers' long-term interests be aligned with those of financial managers, or must labor and capital oppose one another even in the use of *labor's* capital?"

One of the contributions to the book looks at the emerging role of "responsible investment" vehicles, or ethical funds. These screened funds weed out firms that cause social or environmental harm. Criticisms noted about these funds are that they tend to focus on environmental concerns and the potential harm caused by certain products and not on issues of direct concern to workers and the workplace. In addition, it is argued that while these funds do reward good firms and steer money from investors who are concerned about the impacts of their investments towards these better firms, the screened funds do little to change the behaviour of "bad" firms.

Chapter four takes a look at more "activist" shareholder strategies such as proxy voting. The author argues that labour's capital applied in shareholder activism will do more to advance a worker-owner agenda in the 21st century than labour laws. In other words, workers will increasingly use their position as shareholders, as opposed to workers, to influence management.

A third approach to advancing worker-centred uses of capital is through direct fund management by organized labour. Two chapters consider this option, one based on US data on pooled economically targeted investment (ETI) and one based on Canadian data on Canadian Labour Sponsored Investment Funds (LSIFs). It is argued that union-based investment vehicles will not necessarily advance worker-owner agenda's unless specifically mandated to do so. The Canadian example illustrates how "labor can directly generate and use capital for regional revitalization" by "extending labor's capital strategy from ownership of capital to genuine control over investment decision making."

Finally, there are chapters that examine the potential of including workers in the governance of pension funds, and that explore the potential for making economically targeted investments mainstream. The former identifies five resource "leaks" from pension systems and finds that labour representation in pension fund governance helps to stem these leaks. The latter finds that the greatest barrier to ETI investing is "lack of education and expertise among pension plan trustees and their advisors."

Galaway, Burt and Joe Hudson, eds. 1994 *Community Economic Development: Perspectives on Research and Policy.* Thompson Educational Publishing, Inc.

This book provides a textbook-like breadth of approach to the subject of Community Economic Development over 26 chapters. The chapters in Part I examine CED practices in Canada (focusing on 5 provinces and the Atlantic region), the US, Europe and the developing world. Part II explores the "scope and characteristics" of CED, with a focus on Canada that is maintained throughout the rest of the book. Part III looks at the context in which CED takes place and which environments are conducive to effective CED. Part IV provides an evaluation of CED. Part V looks at partnerships for CED. Part VI focuses on the urgent and specific needs of CED and Part VII explores future directions.

Most of the chapters are descriptive of CED programs across Canada. In one of the few cases where research is reported on, a review of federally funded initiatives finds that these have been largely ineffective in creating jobs. The editors identify four key concepts that occur throughout the chapters:
1) CED is concerned with accomplishing both economic and social development goals,

2) CED is based in local communities (usually rural or in urban neighbourhoods),
3) CED involves the participation of citizens, particularly the disadvantaged,
4) CED requires partnership between local organizations and with external organizations.

The chapters either explicitly or implicitly regard CED as community problem solving.

Most of the chapters identify the types of problems CED is thought to be a response to, mainly economic development, especially unemployment, and social alienation and disintegration in communities. The editors note that the chapters do not provide much information on how the CED practitioner actually works in communities to identify problems. They argue the need for research that will illuminate how these processes occur.

Similarly with respect to goals and objectives, the editors note that the chapters set out typical CED goals and objectives, both economic and social, but do not focus on the process of formulating these goals locally. The chapters do identify the tension around adopting goals from external funders, and the tension between focusing on economic or social goals. The editors conclude that further work is necessary to "articulate a rationale for linking economic and social goals, explaining how this can be done, and defining the relationship of the two sets of goals."

The chapters cover a wide range of alternative ways of accomplishing CED goals, including local ownership of businesses and housing, micro-enterprises, borrowing groups, investing in infrastructure, provision of capital and information, training, community loan funds, etc. Interestingly, the chapters illustrate that CED can be a vehicle for both left and right wing ideological approaches, emphasizing either alternative economic models and community solidarity or the need to link communities to the economic system and encourage self-reliance and entrepreneurship. The editors note that the chapters do not provide an analysis of how to link particular CED approaches to a particular community through defining problems and goals. The emphasis throughout is on small communities. The editors emphasize the need to better define the concept of community, to better explain why smaller communities are better suited to CED than larger units, and, relatedly, to further define the parameters of the general argument that benefits should flow "to the community."

Two key concepts identified by all authors are the need for high levels of "participation" of community members in CED and the need for good "partnerships" between groups in the community and between communities and external partners. The editors note the need for further research into how the CED experts actually carry out their work, how do they set about achieving good participation and good partnerships? The authors of the volume also identify that there is little in the way of evaluation of CED programs in Canada.

The editors maintain that the work in this volume highlights the need for a more rigorous examination of the assumptions underlying CED including the linking of social and economic needs and the effort to attain both social and economic goals simultaneously, local community control, widespread participation and the importance of partnership. The editors also call for a better documentation and understanding of the actual work involved in implementing CED: how do CED workers engage communities, define problems, select goals, etc. Some of the authors noted a need for more and better training for CED workers in Canada.

Gaventa, John, Barbara Ellen Smith and Alex Willingham, eds. *Communities in Economic Crisis: Appalachia and the South*, Temple University Press, Philadelphia, 1990.

The book provides a number on case studies and reflections on the impacts of economic re-structuring on communities in the southern United States, many of them former coal towns, from the point of view

of community activists. The book grew out of two workshops organized at the Highlander Centre in New Market Tennessee, which brought together a broad group of community researchers and activists. Many of the participants were concerned about the loss of jobs in traditional fields like mining. there were many debates over strategy: for example: was it better to organize for alternative community economic development or to protest against the practices of the large corporations? How did the politics of class, gender and race affect strategies and ways of knowing and working?

The case studies from Appalachia are most relevant to the project.

People Power: Working for the Future in the East Kentucky Coal Fields by Kristin Layng Szakos, summarizes issues faced by coal communities, and then discusses the organization of Kentuckians for the Commonwealth. KFTC emphasizes leadership development, and teaching people to intervene in public affairs. It wants to help people gain control over their own affairs. The organization blocked a toxic waste incinerator project from PyroChem after six years of organizing in 1987.

Voices from the Coalfields: How Miners' Families understand the Crisis of Coal by Mike Yarrow is a number of stories from miners and their families about living the crisis as the mines shut down. It ends with an assessment that "the type of future that miners and their families are struggling to create, however, remains, largely undefined. Since the coals industry has so visibly shaped their region for its purposes, they have great difficulty imagining a future to fight for if their coal is no longer in demand. Perhaps the material conditions for imagining such a future are increasing communication with communities that face similar crises in different regions, countries or industries and have found promising ways to proceed." (p.52)

The Mayhaw Tree: An Informal Case Study in Homegrown Economic Development by
Ralph Hils describes the history of one successful small business based on a traditional product. Mayhaws take years to produce fruit and depend on a sound ecology to grow. "A jar of mayhaw jelly is the product of intense cooperation, not of intense competition." "One wonders what might happen if some significant portion of the state's economic development budget went to identifying new opportunities for rural entrepreneurs and researching the expansion potential of existing rural businesses." (p.109)

Environmentalism, Economic Blackmail and Civil Rights: Competing Agendas within the Black Community by Robert D. Bullard explores the history of the tensions between these three agendas. Bullard describes the gulf between the environmental and civil rights movements, and how it lead to a preponderance of toxic and dangerous industries in black communities, including "moonlight waste dumpers" and large commercial hazardous waste landfills. He points out that "most black communities do not have the organization, financial resources or personnel to mount and sustain long-term challenges to such unpopular facilities." (p.196) He says that black communities need to incorporate environmental safeguards into their economic development plans, and develop their own environmental strategies.

The conclusion makes the following points:

- Those struggling for economic justice in the south can ensure that their particular problems are treated seriously by government
- They should insist that the right to preservation of cultural integrity play a central role in the progressive agenda
- "The fact that the roots of economic problems are national in scope does not diminish the importance of efforts to establish alternative economic institutions and programs at the local level."
- Community economic reforms can become incubators of change
- Grassroots efforts at CED have had little impact on economic underdevelopment because: 1) they remain small enterprises, 2) there has been little effort to extend the cooperative model of

ownership beyond the enterprise, 3) tendency to fall victim to the market mentality – reluctant to join movement for social justice

Jackson, Edward T. and Rahil Khan. 2003. *Seeking Sustainable Livelihoods: Constructing a Role for Community Economic Development in Technology-Cluster Growth*. Caledon Institute of Social Policy: Ottawa.

Written after the bursting of the "tech bubble", the paper makes the case that community economic development (CED) offers one of the only feasible solutions for reducing the dysfunctional volatility of tech-cluster labour and business markets. Ottawa is presented as an example.

The authors state that technology cluster growth has attained a privileged position in economic discourse, but that it is underpinned only by science and technology, and not by any attention to social dimensions. Research has shown that local knowledge and learning play a pivotal role in growth clusters. However, at present the key actors are corporatist in character, and there is little opportunity for ordinary citizens and civil society to engage. They see this as "knowledge-worker elitism". "There is no natural place in a cluster for under-educated workers, who often also happen to be poor." Further, against a backdrop of excessive corporate compensation and plummeting stock prices…major technology companies have demonstrated a singularly irrational approach to shrinking their labour forces." This has contributed to a drop in employee motivation. Households coping with uncertainty in the workplace are also affected.

In the Ottawa example, the authors look at the Ottawa Centre for Research and Innovation and the Ottawa Economic Development Corporation, indicating the levels of distrust that were created with anti-poverty advocates in the community. The one site of convergence was the Community Foundation of Ottawa, which used money fuelled by technology sector growth to develop an asset-based community development strategy.

There are five roles CED can play in technology-cluster development:
1) bridge the digital divide to unemployed and underemployed people
2) enable knowledge workers to cope with sector volatility
3) mobilize resources to promote asset-based CED among disadvantaged groups
4) create multi-sector leadership structures
5) promote the growth of community-owned science and technology enterprises

The paper expands on these ideas in the Ottawa context.

MacIntyre, Gertrude Anne. 2002. *The Third Option: Linking Top-down and Bottom-up Efforts in Community-Based Development.* University College of Cape Breton.

The Third Option is a CD-ROM which presents and entire course on Community Economic Development. It is grounded in the experience of New Dawn Enterprises – Canada's first CED Corporation – and the wisdom of years of work with CED in Cape Breton. It is written in a popular and accessible style.

The CD places Community Economic Development in the context of globalization, and takes a "progressive approach" to the issue. "The progressive strategy focuses on empowering people, changing traditional organizations devoted to human development and creating new ones. Community residents be-

come more active and enter into mutually beneficial relationships with individuals and organisations outside their boundaries."

The CD includes:

- a historical perspective showing the drama of communities against "a background of political and bureaucratic agendas".
- A section on information and organizational models, contrasting "pyramids and wheels".
- An analysis of the effects of external investment on the Nova Scotia economy, with a specific study of some government regional economic development programs in the 1980s. "Past government economic-development programs are criticized not only for carelessness and waste, but also because they did nothing to tether the loose foot of capital."
- A case study of Glace Bay, using CED theory, with some interesting analysis of the role of the informal economy.
- A literature review.

MacLeod, Greg. *From Mondragon to America: Experiments in Community Economic Development,* University of Cape Breton Press, Sydney Nova Scotia, 1997.

This is a study of the highly successful Mondragon Project in the Basque area of Spain and the Valencia experiment. The author is a community economic development practitioner, the founder of New Dawn Enterprises in Sydney, which was set up to deal with unemployment following on the closures of the coal mines and a steel plant in Cape Breton. MacLeod has visited Mondragon at least eight times leading study tours in CED, and has extensively researched the Mondragon archives.

The inter-locking co-operatives that make up Mondragon are held together by the Caja Laboral Popular (the Credit Union), and by their adherence to the founders' vision of society and the guiding value system. The Mondragon model is neither simply capitalist nor simply cooperative: "It takes elements from several model and results in a community-based business system which is very flexible and adaptable to changing social needs an circumstances." The author proposes that the basic guiding values and good technology are essential in making a new economy.

The book provides a detailed description and analysis of the components of the Mondragon co-operative.

Polese, Mario and Richard Sheamur. 2003. *The Periphery in the Knowledge Economy: the Spatial Dynamics of the Canadian Economy and the Future of the Non-Metropolitan Regions in Quebec and the Atlantic Provinces.* The Canadian Institute for Research on Regional Development.

This study, based on a workshop held in 2001, focuses on the prospects of "peripheral regions" – remote or resource regions. The regions all share common attributes: low population densities, the absence of an urban centre, distance from major markets. Eleven regions in Canada were selected for in-depth analysis as well as regions in Nordic nations and Scotland. Seventeen background studies were undertaken, including a literature review on regional economic development, and analysis and field work in the regions.

The findings were not hopeful for these regions: populations and employment will continue to concentrate in and around large urban centres; the net effect of technological change will e to concentrate employment; distance is not dead; location near a big city matters for small towns; we can expect job losses

in highly resource-dependent communities; some peripheral communities are high wage-cost locations; income maintenance does not stop out-migration.

However, some of their conclusions are more optimistic in their focus. Peripheral regions will not die. Local economic development organizations funded by the province or federal government play an invaluable role in fostering innovation and should be maintained and improved. Unemployment Insurance should allow people to work. A range of incentives should be developed to attract educated young people back to the communities from scholarships to tax relief. Public services and infrastructure should be maintained in remote communities.

Rekmans, Lorraine, Keith Lewis and Anabel Dwyer ed. 2003. *This Is My Homeland: Stories of the effects of the nuclear industries by people of the Serpent River First Nation and the north shore of Lake Huron.* Serpent River First Nation, Cutler ON

"I call this essay "Feeding the Monster", because I envision people as very busy beings. I see the business of shovelling coal out of the earth into an ever-blazing furnace. I see people busy cutting down trees, feeding them into an insatiable paper mill. I see people driving wood and rocks and water to and fro, up and down Canadian highways every day. I see natural resources leaving, going to God knows where. I imagine that this monster likes to eat tons and tons of uranium. He is never satisfied. He is never full. He is always hungry." (Lorraine Rekmans, p.98)

This collection of stories was prepared for the Hague Appeal for Peace conference in 1999. It contains commentaries by leaders and Elders of Serpent River First Nations and activists from the north shore of Lake Huron. The Anishnabe people of Serpent River live downstream from the now closed uranium mines of Elliot Lake, and the community was the site of a sulphuric acid plant. Both operations are on their traditional territories. Uranium was first discovered in Elliot Lake in 1931. It was not developed until the mid-1950s. By 1958, the mines earned more $200 million and milled more than 34,000 tons of ore a day.

"The resultant contamination, destruction and degradation of hunting, fishing and gathering areas is grossly offensive and inevitably an assault on an entire way of life shared by the Original people for generations. There are ten lakes lost for eternity at Elliot Lake. These lakes were used as dumping grounds for radioactive waste…the miners at Elliot Lake lost their lives digging this rock out of the ground. The groundwaters under the tailings basins are virtual rivers of poison. The people who worked and lived around the sulphuric acid plant suffered severely."

The collection includes a chronology of the mines, interviews with Chief Earl Commanda, with Elders, uranium workers and sulphuric acid plant workers, with the Elliot Lake Women's Group and Algoma Nuclear Awareness Group members, and with other members of the community. It includes the essay "Feeding the Monster" by Lorraine Rekmans. It concludes with recommendations for more community-based research, with demands for compensation and for effective monitoring and containment of the radioactivity and its health impacts.

Russell, Bob. 1999. *More with Less: Work Reorganization in the Canadian Mining Industry*, University of Toronto Press, Toronto.

Russell looks at the massive technological changes underway in commodity production and their impacts on workers through detailed case studies of five mining companies in northern Saskatchewan, involved in potash and uranium mining.

His focus is on the method of work organization captured in the term "Fordism" – a method that includes not only the mechanized assembly line, the bureaucratic division of labour into its component parts, but some form of union organization to enable formalized labour-management agreements, the welfare state, and a strongly interventionist national state – and the shift to what he calls "post-Fordism". His thesis is that in recent years, the division of labour has been challenged by the desire on the part of management for flexible job classifications, broadly defined tasks and problem solving teams. Enterprise wide bargaining is sought, which treats each unit as a "profit centre" is interested in "flexible accumulation of capital" and which undercuts traditional union bargaining. At the same time, national governments are being subsumed by multi-national enterprises. In short, the roles of unions have drastically changed.

At each of the five sites, although labour processes were essentially the same, management strategies for maximizing work effort varied considerably.

The study is also very useful for its analysis of the product and labour markets for potash and uranium (to 1994), and its challenge to "market determinism".

He concludes by saying that the emerging economy is "first and foremost, about doing more with less." "These same trends were being experienced by workers in a plurality of connected ways: as growing employment insecurity, as work-related stress, and as a decline in quality of life."

Shragge, Eric ed. 1997. *Community Economic Development: In Search of Empowerment,* Black Rose Books, Montreal, New York, London

This second edition updates and adds to the case studies presented in the first edition of this book. The book provides practical case studies of local attempts to create employment and counter poverty. The contributors are leading activists in the community economic development (CED) movement and share the conviction that CED should be a means for social and political change and not solely focused on economic ends. The book's contributions primarily highlight Canadian examples of CED with the exception of a chapter on a case of CED in Botswana and two examples from the US, including a chapter on the important US-based Institute for Community Economics.

The book reflects a tension between CED efforts to provide immediate economic relief to a specific local community, which may sometimes be inadvertently "hiding the deeper injustice of a global capitalism," and the need to challenge current economic assumptions and link local efforts to wider political-social movements for more fundamental change in global capitalism itself. The editor recognizes that "[t]here are limits to what can be done in the community sector by itself." Shragge points to the need to combine economic efforts suited to the concrete need of the local community with economic and political education.

A number of the cases studies in the book describe efforts to establish a "third sector" economy locally. One that is neither owned nor controlled by the private sector or the State. Other case studies discuss "alternative" economies, in which labour produces socially beneficial functions for the workers and their communities. Shragge comments that the typically small size of these approaches tends to be inadequate to fully address community poverty and that they frequently do not challenge the capitalist economy. Schragge also notes that one of the dangers faced by CED efforts is that they modify their language, their social change potential and their ability to form a challenge to capitalism as a result of the need to meet funder expectations, particularly State funding, making CED projects little more than small scale, localized forms of capitalism.

Shragge, Eric, Jean-Marc Fontan. *Social Economy: International Debates and Perspectives*, Black Rose Books, Montreal, 2000.

This book provides a number of perspectives on "social economy", reflecting a debate current in Quebec. The contents are based on presentations made at the Polanyi conference in November 1996, and includes other papers from other key individuals. The common theme underlying the papers is "that capitalist societies, particularly advanced industrialized capitalist societies are in the process of undergoing some important changes, shaped by globalization of the economy and related changes in the state. As a consequence and related to the specific context of each country or region, new practices have emerged and new importance is accorded to the 'third sector' or social economy."

Many types of organizations co-exist under the category of third sector: ranging from co-operatives to local service providers. There is a tension between the "pragmatic reformist" and "utopian/social change" tendencies. There is not one accepted definition of social economy.

The pragmatic/reformist position sees the social economy as playing a role in managing social welfare through targeting initiatives to specific problems and groups. The utopian/social change perspective links with the building of social change. It is close to the anarchist position of radical decentralization of power to neighbourhood and factory councils and the creation of co-operatives.

The book traces the historical development of the social economy and its debates in a period of rapid social and economic change to its resurgence at the end of the 1970s when the European Union became involved in the discussion. At this time the social economy was viewed as a way to address the problems created by economic restructuring, diminished state welfare spending and unemployment.

Governments jumped on the social economy as a tool to keep costs down. "The social economy permits the combination of public and private strategies to manage social problems…while allowing power and wealth to remain concentrated in the hands of a few." "It is politically dangerous to promote locally based solutions in a period when power is further and further removed from the local. Without the traditional left demand for economic redistribution through the state, the social economy will be relegated to the role of social manager of poverty at the local level." (p.8)

The book makes the point that although one of the claims of the social economy is its democratic functioning, it is not inherently democratic, but is a "zone for democratic experimentation".

The radical/utopian perspective "promotes the social economy as an alternative form of socio-economic development that breaks with the liberal economy. It suggests a new model of society in which the liberal market economy will be replaced by a socially-oriented one… It has a tradition… that can be seen in attempts at urban change through neighbourhood development and the creation of alternative, ecological, and feminist approaches and practice in economic development" (p.8)

Contributions include:
Enzo Mingione examines the market economy as a social construct. There are three basic forms of the social relation of exchange: competitive market, reciprocity and redistribution. He is a proponent of co-operative behaviour.

Michele Cangiani and Paul Leduc Browne are critical of the role of the social economy and see it as a manager of poverty, and a reconfiguration of the welfare state.

Jack Quarter and Louis Favreau see the social economy as providing opportunities to build the third sector, but that it cannot be isolated from wider political struggles for greater social equality and the re-distribution of wealth.

Andrea Levy discusses the crisis of work, and a critique of economic growth, and argues for work sharing and a reduction in hours of work.

Storey, Keith and Mark Shrimpton. *Impacts on Labour of Long-Distance Commuting Employment in the Canadian Mining Industry*, Memorial University of Newfoundland, St. John's, 1989.

The purpose of the research was to determine the impact of Long-Distance Commuting (LDC) on workers employed at northern fly-in mine sites. It looked at three case studies with different rotational and personnel policies, and with both union and non-union operations. It did not look at the impacts after mine closure, nor address the impacts on "home communities". It is also limited to non-native workers and their families.

In 1989 there had been little systematic study of LDC. The reference list at the end of the book provides a useful list of publications to date. Chapter II is a literature review, which addresses the rise of LDC, and sets out the characteristics of LDC mines. "In the metal mining industry a new calculus has emerged which favour the LDC option." The elements of the new calculus include:

- Limitations of resource towns, including: lack of economic diversity, lack of alternative employment opportunities, difficulties in recruiting and retaining top quality labour, vulnerability to "boom and bust" cycles, seasonal instability in terms of employment and income levels, limited and often unpredictable life span of the resource, socio-demographic imbalances, communities too small to support many urban services, limitations of the physical, social and political environment, difficulties of town management, start-up and wind-down costs to industry and government, social and economic problems associated with closure. "Many of these problems have been exacerbated over time as (i) Canadian miners and their families have come to expect and demand a greater range of recreational and other public facilities, (ii) a higher proportion of children need and wish to attend grade school and participate in higher education and (iii) demographic, social and economic changes have made two-income families the norm." (p.22)

- Changes in the regulatory and policy environment. Principal amongst these is the fate of single-industry towns when the mine closes which prove costly to the towns and the public purse. Changes in the regulatory environment have made the construction of company towns more expensive. Early towns were "largely unconstrained by governments…" In the case of Tumbler Ridge, the estimated total development cost exceeded $274 million representing a per capita investment in the order of $45,700 (McGrath 1986:232). Subject to a wider range of regulations regarding urban design, housing standards and servicing. In mid-1970s the Alberta government forbade any new town development in the 'Coal Branch' west of Edmonton. Also, pressure for affirmative action for native people makes it hard to retain way of life as well as hire at mines, "the effect of LDC is the opposite of that of a mine town, insofar as incomes generated at the mien are spent in, or from, a large number of communities." (p.24)

- Technological and infrastructure changes: air transport is now fast, dependable and cheap, and largely supported by public investment.

- Restructuring in the mining sector: weak metal prices, world currency re-alignments, environmental regulation, downsizing and metal substitution leading to more remote mines, smaller workforces and shorter mine lives.

- Worker preference.

The report makes a number of recommendations to deal with problems related to LDC.

Westcoast Development Group (Centre for Community Enterprise). 1996. *Regional Development from the Bottom Up: Selected Papers of the Local Development Series*: Vancouver, B.C.

The volume is in two sections: "What we can do for ourselves: Diversification and Single Industry Communities: The Implications of a Community Development Approach" by Michael B. Decter, and "The Vulnerability Checklist: A Tool for Community Self-Assessment" by the Canadian Association of Single-Industry Towns, with the assistance of David Miller and François Lamontagne.

The authors identify some 1300-1500 single industry towns across Canada that have recently become a focus of regional development policy. The authors start from the recognition that life in these towns has traditionally been harsh and that the towns have had finite lifetimes. The papers both emphasize the need for communities to initiate and act on their own behalf rather than relying on public support, but the authors maintain that where communities have initiated action from the ground up their have been success stories.

The first section explores the issues of single industry towns and looks at ways that communities can diversify their own economies themselves – as they cannot rely on public funds. The author expects that the (now defunct) establishment of the Canadian Association of Single Industry Towns in 1985 will be of assistance in this effort.

Decter identifies the following key documents in the history of CED for single industry towns:
- Let's Recycle Our Throwaway Communities and Disposable Workers: Policies For Dealing With Mining Communities" Wade, Locke, Royal Commission on Employment and Unemployment, Newfoundland and Labrador, 1986.
- "Canada's Single Industry Communities: A Proud Determination to Survive" – Canada Employment and Immigration Advisory Council, February 1987.
- There was also a response by 17 Federal Departments to the CEIC report.

Decter's section reviews the economic context of single-industry towns, and their significance in the Canadian economy. He identifies key issues facing these communities as vulnerability, the export role, the product price cycle, and the life cycle of communities. Chapter 3 reviews key reports and studies on the topic; Chapter 4 outlines existing program initiatives; Chapter 5 outlines a community-based economic strategy for single industry communities; Chapter 6 examines policy options for the communities themselves; Chapter 7 examines the roles of each level of government; Chapter 8 looks at the roles that corporations and unions can play.

The second section focuses on the Canadian Association of Single Industry Towns "Vulnerability Checklist." It describes the process and results of a self-assessment tool for local communities that will help them assess their own vulnerabilities in order to predict and prevent future problems. The paper provides the results of a pilot test of an earlier version of the "Checklist" in 13 communities and concludes with possibilities for improving the Checklist and further developing the self-assessment concept.