MMSD

Mining, Minerals and Sustainable Development

April 2002 | No. 58

Avoiding New Poverty: Mining-Induced Displacement and Resettlement

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Mining, Minerals and Sustainable Development is a project of the International Institute for Environment and Development (IIED). The project was made possible by the support of the World Business Council for Sustainable Development (WBCSD). IIED is a company limited by guarantee and incorporated in England. Reg No. 2188452. VAT Reg. No. GB 440 4948 50. Registered Charity No. 800066

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A partial list of formerly sustainable communities relocated by mining

Executive Summary

The problem of mining-induced displacement and resettlement (MIDR) poses major risks to societal sustainability. Unfortunately, no global survey has assessed the scale of MIDR. Available evidence suggests that the problem is significant. Mining displaced 2.55 million people in India between 1950 and 1990. The likelihood that MIDR will be a significant issue increases as eight factors converge—as rich mineral deposits are found in areas with relatively low land acquisition costs (in the global market) that are being exploited with open-cast mining and are located in regions of high population density—especially on fertile and urban lands—with poor definitions of land tenure and politically weak and powerless populations, especially indigenous peoples.

MIDR is accompanied by what displacement specialists call the resettlement effect, defined as the loss of physical and non-physical assets, including homes, communities, productive land, income-earning assets and sources, subsistence, resources, cultural sites, social structures, networks and ties, cultural identity and mutual help mechanisms. The effect introduces well-documented risks over and above the loss of land. The loss of land may address only 10-20% of the impoverishment risks known to be associated with involuntary displacement. Investigations into displacement have found nine other potential risks that deeply threaten sustainability; these include joblessness, homelessness, marginalization, food insecurity, loss of common lands and resources, increased health risks, social disarticulation, the disruption of formal educational activities, and the loss of civil and human rights. Failure to mitigate or avoid these risks may generate "new poverty," as opposed to the "old poverty" that peoples suffered before displacement. Certain groups—especially indigenous peoples, the elderly and women—have been found to be more vulnerable to displacement-induced impoverishment risks.

The means by which to avoid grafting new, displacement-induced poverty onto preexisting poverty are known. Forty years of studies and lessons learned in involuntary resettlement provide a rich vein of knowledge and reasonable guidelines and checklists have been developed. Nonetheless, attempts to restore the displaced to their former economic and social conditions have proved ineffective. Under-financing is a key component of their failure. Although people continue to be relocated, the goal of rehabilitation remains exceedingly difficult to achieve, and the preferred goal of sustainable development, where people are better off than they were before resettlement, has seldom been achieved. Under-financing emerges from the wrong-headed notion that compensation for losses is sufficient to rehabilitate a displaced economy. Compensation by itself cannot adequately restore and improve the income levels and livelihood standards of people subjected to expropriation and forced displacement. From the operational perspective, compensation—*not rehabilitation or sustainable development*—becomes the goal rather than a means to help ensure a sustainable outcome.

But the key question remains: Who pays for countering the resettlement effect in mining-induced displacements and resettlements? At present, mining, financiers and governments are externalizing displacement costs onto the weakest party, the displaced.

Concerns over liability occur at three levels, depending on the degree of regularization of obligations. Some liabilities are widely acknowledged (acknowledged liabilities in Figure 2). Other liabilities are not currently accepted although scientific research has found them valid (possible liabilities). A broad, unstable band of probable liabilities falls between the possible and the acknowledged. Pressures are building from many directions to regularize liabilities that until now were considered probable and possible liabilities.

It is too early, however, to expect harmonization and the emergence of a detailed industry-wide approach. My suggestion—developing involuntary displacement and resettlement insurance to protect the involuntarily displaced from—impoverishment is probably politically premature. In the meantime, the inability to cope with the MIDR problem is delaying projects and generating costly controversies. It is plunging innocent victims who find themselves "in the way" into new poverty. And governments are inheriting the long-term costs.

A MIDR Contingency Clause (MIDR-CC) is proposed as an interim, on-the-ground solution. The MIDR-CC would be an agreement that all likely MIDR risks be assessed, goals set, costs estimated, organizational arrangements proposed, and financing secured *before* a mining project goes forward.

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You take my house when you do take the prop
That doth sustain my house;
You take my life
When you do take the means whereby I live.

Shakespeare, Merchant of Venice

1 Mining-Induced Displacement and Resettlement: A major threat to sustainable societies

The problem of mining-induced displacement and resettlement (MIDR) poses major risks to societal sustainability.[1] The severity of these risks is encapsulated in the opening lines of the World Bank Group's policy on involuntary resettlement (Operational Policy 4.12, approved 23 October 2001):

> Bank experience indicates that involuntary resettlement under development projects, if unmitigated, often gives rise to severe economic, social and environmental risks: productive systems are dismantled; people face impoverishment when their productive assets or income sources are lost; people are relocated to environments where their productive skills may be less applicable and the competition for resources greater; community institutions and social networks are weakened; kin groups are dispersed; and cultural identity, traditional authority, and the potential for mutual help are diminished or lost.

The notion that development projects may impoverish people might seem strange, if not contradictory, to those who own, finance, underwrite, or otherwise promote mining. While mining, undeniably, may cause severe localized effects, don't the massive investment of capital into backward areas, the creation of local jobs, the building of new infrastructure, and—if all goes well—the generation of substantive profits improve the conditions of local people, including those who are forcefully displaced? Don't these benefits outweigh any local loss of land? And if a company compensates local landowners, replaces lost infrastructure, and complies with national and local laws, doesn't it fulfill its obligations? If laws do not sufficiently protect the displaced, isn't the government to blame?

Displacement involves not only the physical eviction from a dwelling, but also the expropriation of productive lands and other assets to make possible an alternative use

[1] The core principle of sustainable development is to improve human well-being over time, with the goal that children's lives be as good as, or better than, their parents'. A sustainable society has the capacity to deal with routine social, economic and environmental risks, including minor disasters, the loss of key persons, business cycles and the like. It has well-articulated productive knowledge and assets. Its members support, claim ownership in, and enhance their social and political institutions. They have the capacity for mutual self-help. A sustainable society nurtures and constructs its cultural identities. It recognizes traditional authorities and requires that the means of survival be passed, unimpaired, to future generations and that the total stock of capital be increased, not diminished.

(Cernea 2000). **Affected peoples (APS)** are those who stand to lose, as a consequence of the project, all or part of their physical and non-physical assets, including homes; communities; productive lands; resources such as forests, rangelands, fishing areas, or important cultural sites; commercial properties; tenancy; income-earning opportunities; and social and cultural networks and activities (ADB 1998a).[2] APS may also include "host communities" when a large population is displaced onto the land of a smaller existing (host) population. **Rehabilitation** refers to restoring the incomes, livelihoods, and social systems of the displacees to at least the level of their pre-project status.

Each year, more than 10 million people are involuntarily displaced to make way for development projects (Cernea 2000). Hydropower generation is responsible for most of this displacement, but mining accounts for an undetermined proportion.[3] The likelihood that MIDR will be a significant issue increases as eight factors converge—as rich mineral deposits are found in areas with relatively low land acquisition costs (in the global market) that are being exploited with open-cast mining and are located in regions of high population density—especially on fertile and urban lands—with poor definitions of land tenure and politically weak and powerless populations, especially indigenous peoples.

From this perspective, MIDR is unlikely to occur in Avondale and Peoria, Arizona. These affluent, politically powerful, highly populated, non-indigenous, urban communities sit on top of the state's most valuable deposits,[4] but the problem of MIDR makes mining these deposits economically and politically implausible. Conversely, MIDR is likely to occur where rich deposits are found in India and comparable locations. India has, in fact, become the bellwether not only of displacement problems, but also of possible MIDR solutions. The Indian government estimates that more than 30 million people have been displaced since Independence. Three-fourths of these are still awaiting resettlement and rehabilitation (Mahapatra 1999a 1999b, Berne Declaration 1996, Fernandes1994). Some displacements, such as those at the Sardar Sarovar Project (Narmada), have become the foci of major international and national environmental and human rights confrontations (Roy 1999a, Morse and Berger 1992, McCully 1996, Cody 2001, International Rivers Network www.irn.org/programs/india/). Displacement is now so acute in South Asia that some communities have been displaced more than once, creating a floating population of development-induced poor.

By conservative estimates, mining displaced 2.55 million people in India between 1950 and 1990 (IGNOU 2001).[5] MIDR increased substantially since the 1970s as the country's coal production shifted from underground to open cast mining (from 40 to 156 million tons

[2] I prefer to use "affected peoples" (APS) rather than the Asian Development Bank's "affected persons" (AP) to emphasize the social and individual nature of project-induced displacements and to avoid the temptation of individualizing what is fundamentally a socio-cultural and economic process.
[3] The estimated number of MIDR displacees may be substantially higher if displacements required for hydropower to smelt minerals are included.
[4] This aggregate deposit is more valuable than Arizona's copper deposits, for which the state holds an international reputation.
[5] This figure is now quoted frequently in both official and non-official documents, including IGNOU 2001 (Pandey, personal communication).

during the 80s alone). The issue has gone beyond economics and environment; local NGOs, such as Operations Research Group (ORG), a consultant of Coal India Limited (CIL), reported that MIDR is creating a pattern of "gross violation of human rights," and "enormous trauma in the country." NGOs and academic research centers have documented—in great detail—the difficulties in rehabilitating formerly sustainable communities dismantled by mining (Pandey 1998a, Fernandes 1994 , Mathur and Marsden 1998, World Bank 2001b). CIL confirms in an environmental impact assessment for one of its pending coal sector projects that the victims of resettlement "often end up as exploited contract laborers trapped in perpetual poverty or they simply leave the area, to reappear in the slums of the city or as squatters" (Berne Declaration 1996).

By the mid-90s, CIL's inability to deal with mounting MIDR problems was influencing its attractiveness to capital markets. Its policy of providing inheritable employment for displaced families has resulted in a sustainable economic liability. The World Bank required a distinct $US 63M Coal Sector Environmental and Social Mitigation Project (CSESMP)—known as the Coal Indian Rehabilitation Project (CIRP)—as a condition for CIL's obtaining a $US 500M loan. A large part of the CSESMP was a pilot project that helped CIL implement appropriate policies for environmental and social mitigation of MIDR and test the effectiveness of these policies on 25 of its 469 coal mines (Pantoja 1999, CSESMP Project 1996 on worldbank.org).

Unfortunately, no global survey has assessed the scale of MIDR. Available evidence suggests that the problem is significant: Freeport Mine in Indonesia has reportedly displaced about 15,000 people (Hyndman 1988, 1994), and the Ghanan Tarkwa mine forcefully removed 20,000 to 30,000 people from their homes (Coakley 1998, Goldfields Ghana Ltd. 2001, FIAN 2001).[6] The southern Africa MMSD regional report discovered 37,000 displaced over 5 years (Sonengberg and Munster 2001).[7] I am unaware of any MIDR census for Latin America that would allow an estimate, but there are hints that the numbers may be high, especially if mineral processing plants and their allied hydropower plants are included in the count. For example, 25-35,000 people were forcefully relocated because of the Tucuri Hydropower Complex in Brazil, a dam whose economic justification was to provide power for aluminum smelting (La Rovere 2000). Cases of mining-induced displacement and resettlement are now highly visible in Papua New Guinea, Indonesia, the Philippines, Peru, Venezuela, Suriname, Guyana, Argentina, Chile, Honduras, Tanzania, Botswana, and Namibia. Displacement can be expected to increase as national mining policies are liberalized, as companies opt for open-cast mining, and as rural population density increases (FIAN 2001).

[6] Another study in Orissa found that 79 villages with 3143 families and 2427 hectares were displaced between 1950 and 1993 (Walter Fernandez, J.C. Das and Sam Rao 1989).
[7] The Sonngberg and Munster (2001) report did not census or estimate the size of MIDR in Africa.

2 The Resettlement Effect

MIDR is accompanied by what displacement specialists call the resettlement effect, which is defined as the "loss of physical and non-physical assets, including homes, communities, productive land, income-earning assets and sources, subsistence, resources, cultural sites, social structures, networks and ties, cultural identity, and mutual help mechanisms" (ADB 1998).

The risks of creating "new poverty"

Development-induced displacement unleashes widespread social, economic and environmental changes that follow well-established patterns. Although they vary in severity, these patterns are remarkably consistent regardless of what type of project or industry is responsible for the displacement (ADB 1998a, 1998b; Pandey 1998a, 1998b; Mathur 2001; Cernea 1999b, 2000; Downing 1998; Scudder and Colson 1982; Scudder 1996).

A frequently used model for organizing these risk patterns is the Impoverishment Risk and Rehabilitation Model (IRR), developed by the senior social policy advisor to the World Bank, Michael Cernea, and his team during their portfolio-wide review of the Bank's development-induced displacement experience (Cernea 1996, 1999, 2000; World Bank 1994).[8] The model has subsequently been elaborated, tested and revised (Mahapatra 1999; Pandey 1998a, 1998b; Downing 1996b, 1998, Mathur and Marsden 1998; Agarwal 1998, Mathur 1999).

The most visible MIDR risk is loss of land. This loss, however, may address only 10-20% of the impoverishment risks known to be associated with involuntary displacement. Investigations into displacement have found other potential risks that deeply threaten sustainability; these include joblessness, homelessness, marginalization, food insecurity, loss of common lands and resources, increased health risks, and social disarticulation (Cernea 1998, 1999, 2000, 2001; McDowell 1998). Worldwide academic research has confirmed this model, expanding its scope to include two additional risks: the loss of civil and human rights (Downing 1998) and the disruption of formal educational activities and loss of access to basic public services (Marsden and Mathur 1998).

Failure to mitigate or avoid these risks may generate "new poverty," as opposed to the "old poverty" many APS already suffer (Cernea 2002); poor people *do become even poorer* (Pandey 1998a; Aronsson 2002, Mathur and Marsden 1998). Measured in terms of daily survivability and human dignity, the loss for the poor, of even a small bit of resource, is devastating. Measured in terms of long-term impacts, MIDR significantly truncates social and individual chances for sustainable development. Societies that have endured for hundreds, if not thousands, of years can quickly unravel and disintegrate under the pressures of forced

[8] A second well-known involuntary resettlement model, developed by Colson and Scudder (1982) and subsequently elaborated by Scudder (1996, 1997), focuses on the stages of the displacement process. Based on more than four decades of detailed anthropological investigations, this model has been supported in scores of field studies (Guggenheim 1997). Downing (1996, on the web at www.ted-downing.com) has developed a social geometry model that focuses on the manner in which displacement reorganizes a peoples' social-temporal-spatial order. Ethnographic work by Aronsson (2002) supports and elaborates on this model.

displacement. Conversely, properly developed actions that reduce—though they may never nullify—the effects of MIDR increase societal sustainability.

Landlessness

To better understand the concept of new poverty, let's more closely examine the risk of landlessness. MIDR raises the significant risk of landlessness by removing the foundations upon which productive systems, commercial activities, and livelihoods are articulated. This form of decapitalization and pauperization occurs not only from the loss of land to mining, but also as a result of the inability of the displaced to find suitable replacement land, either because of inflated local prices due to increased demand or because households use compensation paid for land to meet immediate survival needs that surface during resettlement (see Table 1). Decapitalization may also occur when the land's productive capacity is lost on account of mining-related contamination, flooding, or environmental damage. [9]

MIDR-related impoverishment from landlessness may take four forms: 1) the initial loss of land to mining, 2) damages to the land's productive potential in the surrounding, non-appropriated area, 3) subsequent losses in the productive value of land on account of environmental problems, and 4) loss of land occurring because landless people are unable to gain access to alternative lands.

Evidence of "new poverty" is surfacing in displacement studies throughout the world, but is well illustrated by pre/post displacement research on those forcefully resettled by six infrastructure projects in the State of Orissa in eastern India (Table 1). Following displacement, landlessness increased in all six populations, reaching up to five times its pre-displacement rates. The latter problem is reported again and again in involuntary displacements throughout the world.

Table 1: How displacement produces new poverty: landlessness in Orissa, India resettlements (adopted from Pandey's 1998a data by Downing 1999).

Project	Families displaced	% Landless among displaced families	
		Before displacement	After displacement
Sam Barrage	318	24	38
ITPS	44	12	75
Ib Valley	39	56	92
UKP	74	12	31
NALCO (mining)	100	20	88
HAL	44	36	59

[9] Land-based productive economies—particularly in traditional agricultural and indigenous communities—often involve highly articulated knowledge of the land (ecological niches, fauna and flora) that is not readily transferable (OXFAM 2001, Downing et al 2002).

Joblessness

As the eight-dimensional likelihood model predicts, MIDR is most likely to occur in rural areas. Observers unfamiliar with rural peasant and indigenous economies tend to overlook potential economic impacts not directly related to land ownership, such as the loss of wage employment, access to leaseholds and share-cropping opportunities. Post-displacement unemployment or underemployment is often chronic following the dismantling of the local income-generating resource base. Often overlooked are the loss of pre-displacement economic opportunities linked to recurring local and regional economic cycles and sustained social relations of production.

Determining whether or not mining improves the local situation requires investigating the overall employment losses and gains throughout all displacement stages: recruitment, transition, potential development, handing over, and incorporation (Scudder 1996, 1997a, 1997b; Scudder and Colson 1982). Assuming there are local hire provisions, mining increases employment—for some. It is increasingly difficult for an industry moving to less labor-intensive methods and toward more skilled labor to argue that it brings employment to unskilled local laborers (Lassey 2000). Only about 100 of 17,300 Freeport workers in the Grasberg mine are native to the mining area (Oxfam 2001). The argument that mining employment may substitute for lost local jobs is problematic and, in sustainability terms, does not hold if the lifespan of the mine is shorter than the lifespan of the sustainable economy it dismantles.

More evidence that MIDR generates new poverty is found in pre and post displacement employment studies, also conducted by Pandey (1998a, 1998b) and his research team. They discovered that before displacement about 56% of women were jobless; the figure rose to 84% after displacement. In the primary sector, employment dropped from 37 to 12 percent, while in the secondary sector it fell from 6% to nil. As a result, women who were already marginal in the production process were deeply downgraded.

Homelessness

The pattern of new poverty persists in the third displacement risk, homelessness, defined as the "loss of house-plots, dwellings and shelter." For many people homelessness may be only temporary, but in poorly executed displacements, it remains chronic. New poverty becomes a problem when the losses go beyond the simple loss of a structure. Homelessness or the replacement of a house with a structure that its occupants may not consider "a home" is often associated with a profound loss of identity and cultural impoverishment as the symbolic importance of place, in terms of family cohesion and a remembered location for mutual support, not only from the household but neighboring households, is disturbed (Bonwell 1998, Downing 1996, www.ted-downing.com; Aronsson 2002). Homelessness emerged as a major impoverishment risk for the former inhabitants of Teberebie in Ghana who were displaced by the American-Ghanaian gold mining company Teberebie Goldfiels Ltd. in the early 90s. Their illiterate chief signed an agreement for 168 housing units, but seven years later, the agreement was not yet fulfilled (Brande 1998).

The Risk of Marginalization

The risk of marginalization threatens displaced individuals and entire communities as they slip into lower socio-economic status relative to their local areas. Research has shown that such marginalization is accompanied by a loss in self-esteem, especially when the displaced become "outsiders" and "newcomers" in host communities.

Health Risks

Health risks associated with displacement are well documented. The already marginal health status of displacees is worsened by the stress and trauma of moving. Recurring problems are reported with resettled populations gaining access to safe potable water and safe sewage; increased diarrhea, dysentery and epidemic infections often result. As might be expected, the health impacts fall disproportionately on infants, children, expecting mothers and the elderly.

Disruption of Formal Educational Activities

An often-overlooked MIDR-associated risk occurs in the disruption of education and routine socialization. Cernea notes that "displacement and relocation often cause a significant interruption in the functioning of schools and in child access to education during the year of transfer or for longer periods of time. Empirical studies show that a number of these children never return to school and instead join the labor force at an early age. The chaos of relocation distracts parents from focusing on the concerns of their children as they struggle to reconstruct their physical and productive environment.

Other Risks

Comparable examples of new poverty have been documented with the loss of access to public services, increased food insecurity, the loss of access to common property, social disarticulation, and the loss of civil and human rights (see Kibreab 2000 on common property losses).

Vulnerable groups

Of those affected, certain groups—especially indigenous peoples, the elderly and women—have been found to be more vulnerable to impoverishment. This pattern has been observed in indigenous (tribal) areas in India, Peru, Papua New Guinea (PNG), Australia, the western United States, Canada, and northeastern Brazil (Fernandes 1991,1992, Downing et al 2002, Ali and Behrendt 2001). A study of 110 development projects taking place during India's Eighth Five Year Plan (1990-95) discovered that 1.6M people were displaced, of which almost half were tribal people (Pandey 1998a); quite often, their ownership rights to the land were in dispute (Mander 1999). As a general rule, vulnerable groups rely heavily on their surrounding environment, and alterations to the surrounding ecology are likely to overwhelm individual and community adaptive responses and result in displacement. When evicted from their land—the foundation of their culture—without appropriate compensation or rehabilitation, the damage to indigenous people is extreme.

Like indigenous people, women and the elderly are also more likely to be victims of the resettlement effect. Scheduled castes and scheduled tribal women in India were most adversely affected. The loss of authority and right was compounded by the breakup of families, a weakening of kinship ties, and a loss of the security and insurance created by family and kinship relationships. The situation was most dismal for landless women who were dependent on other people's land (where they worked as agricultural laborers) or on forest resources. These women became further impoverished and often destitute (Pandey 1998c). The poorest of the poor pay the price of other peoples' progress. Nahmad (1999) and Aronsson (2002) documented comparable impoverishment in Zimapan, Mexico.

Besides the aforementioned increase in unemployment, researchers identified two additional negative impacts on women resulting from their forced displacement by coal mines (Pandey 1998b). Women suffered from an increase in domestic violence, while their children suffered the long-term consequences of suspended or curtailed education (Cepes 1999, Lassey 2000). As their productive activities in farm work, kitchen gardens, and the collection and sale of minor forest produce and other cottage industries decreased or ceased entirely, women were no longer productive contributors to their households, and lost social status within the community where they once held recognized roles. The authority and right they enjoyed as income earners in decision-making was weakened. Comparable degradations in women's contributions to assuring food security options were found by Bonwell (1998) in the Porgera Valley.

3 Countering the Resettlement Effect

The means by which to avoid grafting new, displacement-induced poverty onto preexisting poverty are known. Forty years of studies and lessons learned in involuntary resettlement provide a rich vein of knowledge. Reasonable guidelines and checklists have been developed by international financial intermediaries and NGOs, and special assemblies offer reasonable guidelines on how to avoid landlessness and homelessness (The World Bank 2002; Asian Development Bank 1998a, 1998b, 2000; the Inter-American Development Bank 1999; Oxford Declarations on Involuntary Resettlement 1995 and 1996 www.ted-downing.com).

The core wisdom is that restoration of livelihoods and rehabilitation are more likely when all potential impoverishment risks are identified early and when organizational and financial arrangements are made to mitigate or avoid these risks. Rather than dwell on the fact that mining displacements have not addressed these risks, I choose to focus on ways to get on track and avoid what all sides agree is an unacceptable outcome.

A key organizational step in reaching this objective is a **resettlement plan** (also known as a resettlement action plan), a time-bound action plan with a budget which sets out resettlement strategy, objectives, entitlement, actions, responsibilities, monitoring and evaluation. **Social preparation** is an integral part of the plan and involves the prior informed consultation with affected peoples—undertaken before key resettlement decisions are made—to build their capacity to deal with resettlement. Early in project preparation, APS—individuals, households and communities—are identified. **Impoverishment risk assessments** are also made at this time. Assessments examine risks in the ten known risk categories, and include identification of the risk exposure of **vulnerable group**s more likely

to suffer disproportionately from the resettlement effect. Based on the assessment, social preparation and identification of vulnerable groups, **entitlements** are defined. **Entitlements** include the range of measures, including compensation, income restoration, transfer assistance, income substitution, training, benefits and other actions due to affected people—depending on the nature of their losses—to restore their economic and social base.

A clue to restoring or improving incomes and livelihoods of affected peoples surfaced in the previously referenced 1994 World Bank-wide resettlement review. The Bank discovered that decades of dismal performance were due to their projects' flawed economic analyses and to methodologies that failed to deal with the risks previously mentioned. Under-financing of the resettlement component was a key cause of failure. "Less than 30 percent of all resettlement plans were found to mention economic rehabilitation programs beyond compensation" (World Bank 1994). Failure to properly account for involuntary resettlement costs can, under certain circumstances, also turn otherwise profitable projects upside down. Pearce (1999) reports on a 1993 internal Bank study by Guttman showing that if the resettlement costs of a project were no more than 10% of its total costs, a 50% overrun could jeopardize the rates of return on 30% of the projects. If resettlement costs were under 10% of the total project costs, overruns were not likely to threaten the internal rate of return.[10]

It is important to distinguish between involuntary displacement goals and means (Figure 1). There are three possible goals or anticipated outcomes for the displaced. The least acceptable is simply to **displace** them without concern for their shattered livelihoods. Those responsible often justify this brutal option with claims that the occupants had no legal or recognized rights. **Relocation** involves some commitment to compensation for, or rebuilding of lost assets, particularly infrastructure such as housing or lost public facilities, at the new location. Those displaced are left to reestablish productive systems on their own. **Rehabilitation** entails processes provided in addition to compensation and relocation in order to ensure that, by having income streams, livelihoods and social systems restored, affected peoples and their offspring are substantially better off as a result of the project (Mander 1999, ADB 1998a).[11] The objective is to reach a point where the displacees are not worse off than they were before displacement. Rehabilitation or restoration only ensures that the rehabilitated society can continue *as it was*. Sustainable development—the highest goal—involves not only relocating and rehabilitating the displacees, but assuring that they are better off than before and that they are beneficiaries of the project that was responsible for their displacement in the first place.[12]

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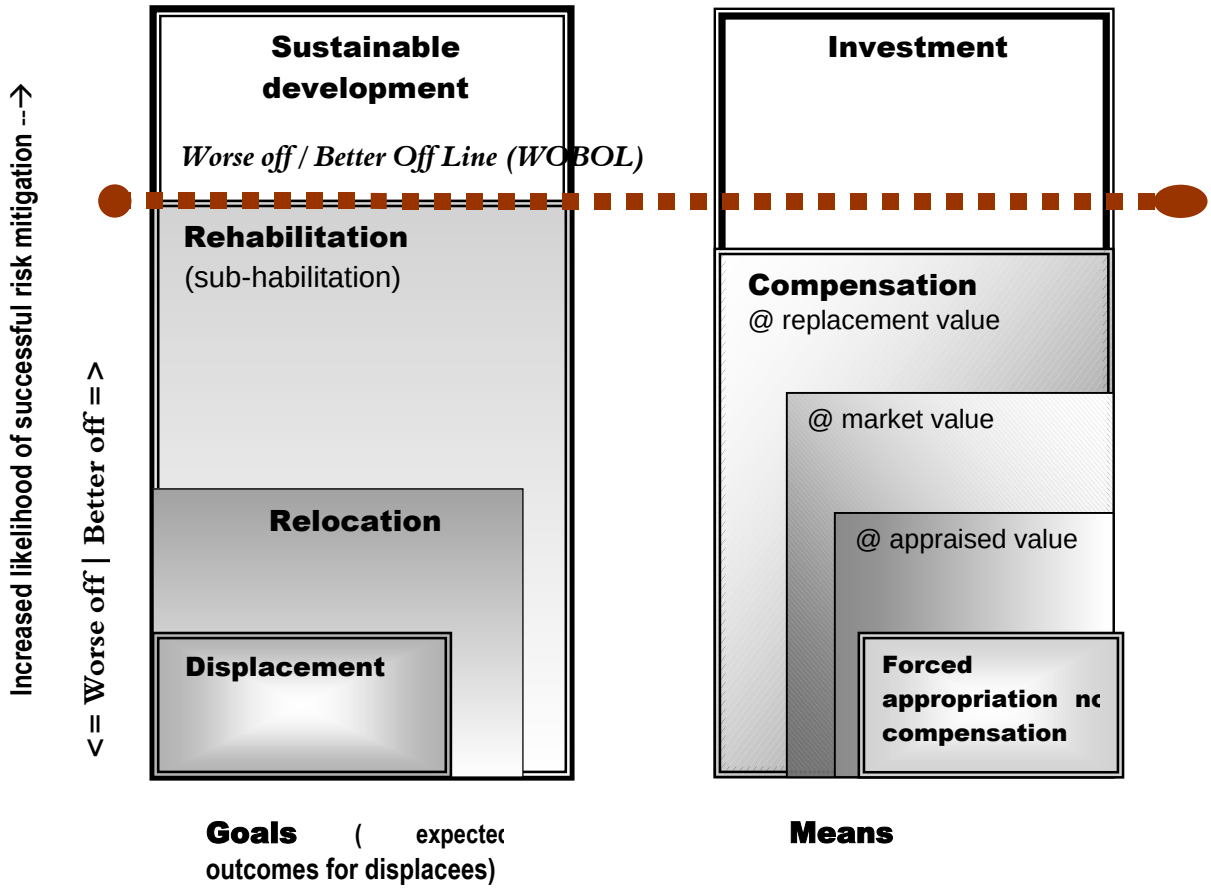
[10] Some operations may be running so close to the margin that a small increase in costs to cover involuntary resettlement could pose a financial risk. A venture operating on such a thin margin is probably not commercially viable—with or without MIDR. If externalizing the resettlement costs is the only difference between a profitable and non-profitable venture, then what profits there are in the operation are being transferred out of the livelihoods of the displacees.

[11] A major issue is when the baseline is set and whether adjustments should be made for the opportunities for development lost in the chaos of displacement.

[12] Care should be taken not to confuse the rehabilitation of communities that are displaced by mining with the rehabilitation efforts frequently called for after a mine is decommissioned. Moreover, speaking of compensation interchangeably with rehabilitation can be used in effect to devalue the scope of rehabilitation (Mander 1999).

Figure 1: Goals and Means for improving the performance of MIDR



Note: Investments include grants, benefit-sharing arrangements (van Wicklin III 1999) business development arrangements, educational development, and so on.

MIDR goals can be accomplished by three broad means. **Forced appropriation** involves taking assets of the displaced without compensation. Though project owners may think such a scenario unlikely, displacees are sometimes deprived, without compensation, of something they see as an asset. **Compensation** is money or payment in kind to which the people affected are entitled in order to replace lost assets, resource or income (ADB 1998a, Mander 1999). Compensation can be made at appraised value (for tax purposes, for example), market value or replacement value. If all lost assets are compensated at replacement value, the displacees might appear, in terms of that asset, to have reached the line where they are neither worse nor better off. This would not be true, however, unless compensation included a transaction cost accounting for the effort expended to replace the asset and its lost productive returns. Compensation—in whatever form—does not entail investment or benefit sharing. **Benefit sharing** occurs when the displacees share in a project's benefits. These shares may include project equity, benefit sharing arrangements, educational investments in the displacees and their children, development of micro enterprises, or grants. Project owners, financiers and governments are apt to mistakenly call relocation and rehabilitation costs benefits for the displaced. If a mining promoter is injured in a car

accident when hit by Mr. X, would the promoter call the damages Mr. X pays for his injuries benefits?

Compensation Dilemma

Compensation by itself cannot adequately restore and improve the income levels and livelihood standards of people subjected to expropriation and forced displacement. Involuntary resettlement projects have persistently been unable to reach these goals. Projects are faced with persistent problems in reaching sustainable development goals (Downing 2002; Pearce 1999; Cernea 1999a, 1999b, 2002): expropriated assets are undercounted, replacement prices are undervalued, problems emerge in measuring non-physical losses, non-market incomes prove difficult to calculate, changes in values between the time of assessment and payment are not considered, payment is delayed, and corruption sometimes runs rampant. From the operational perspective, goals are forgotten as compensation—*not rehabilitation or sustainable development*—becomes the goal rather than a means to help ensure a sustainable outcome.

Examining these problems, specialists conclude that involuntary resettlements have been persistently under-funded and dislocated people persistently undercompensated (Cernea 1999a, Ericksen 1999). Asset replacement through compensation does not prevent affected peoples from being worse off. The disruptive process of displacement leads displacees into playing "catch up," and assets must be created through investment in ways to reestablish income streams and build wealth. The root cause of this problem is the "basic incompatibility between goals (restoring and improving incomes) and means (compensation for losses) … the goals are inherently condemned to remain most often and chronically unreachable" (Cernea 2002).

4 Defining Liability

When law can do no right
Let it be lawful that law can bar no wrong.

Shakespeare, King John Act 3

Impoverishment risk assessment may provide a fairly good estimate of losses and rehabilitation costs (measured in terms of time, restorative actions and money). But the key question remains: *Who pays for countering the resettlement effect in mining-induced displacements and resettlements*?

Externalizing Costs

At present, mining, financiers and governments are externalizing displacement costs onto the weakest party, the displacees. It may be argued that profiting from a mining endeavor without paying the costs for rehabilitation of newly created, local poverty is morally indefensible. In such a situation, the poor are in effect taxed to benefit those who profit financially from the mine. Arguments that displacement is for "the greater common good" are difficult to defend if revenues flow to a select few (Roy 1999a).

On the other hand, it is accepted business practice to reduce costs by having someone else pay them. Costs may be rolled into a fee or the price, or transferred to a third party. Such transfers to third parties are coercive, especially when the costs are transferred without their consent. If the recipient gains benefit, then the transfer might be economically justified. But if the unfortunate third party gains no benefit from the transaction but must pay the price, then there is no economic justification. Willingly or unwillingly, the third party is subsidizing whoever is benefiting from its loss. Justification for this outcome might still be made on moral, but not economic, grounds.

Ironically, the cases for and against externalization are both made on moral, not economic, grounds. Some argue that because governments grant companies concessions for mining, they accept responsibility for the resulting impoverishment. While establishing blame, this argument moves us no closer to a solution. Governments might claim that they did not accept responsibility because neither the risks nor the possible mitigating steps were identified. Governments might also be indifferent to the plight of the displaced; in such a case, mining interests and their financiers are considered willing accomplices to what may be judged by others to be an unethical business transaction.

Concerns over liability occur at three levels, depending on the degree of regularization of obligations. Some liabilities are widely acknowledged (**acknowledged liabilities** in Figure 2). Other liabilities are not currently accepted though scientific research has found them valid (**possible liabilities**). Liabilities for health and social disarticulation impoverishment impacts fall within this range. A broad, unstable band of **probable liabilities** falls between the possible and the acknowledged. Examples include liability for rehabilitation, for accepting the emerging international finance intermediaries' safeguard policies on involuntary displacement, and for drafting and following corporate responsibility statements. This range should be of particular interest to our discussion of MIDR—especially when external events are pressing for a redefinition of what risks should be shifted from the probable to the acknowledged liability side.

The boundaries between acknowledged, probable and possible liabilities change. Despite disagreements over details, predefined liabilities are preferred since they regularize obligations for all concerned. An excellent example is workman's comprehensive insurance (workman' comp) whereby employers' liabilities for on-the-job injuries are clearly defined and, except in the case of gross negligence, companies pay their premiums and insurance underwriters anticipate and pay legitimate claims. Employers post notices and employees may opt out of the plan if they wish, accepting the risk that they may not be paid if injured, but retaining the right to sue. The resulting system regularizes obligations and transforms an uncertainty into a fixed cost.[13]

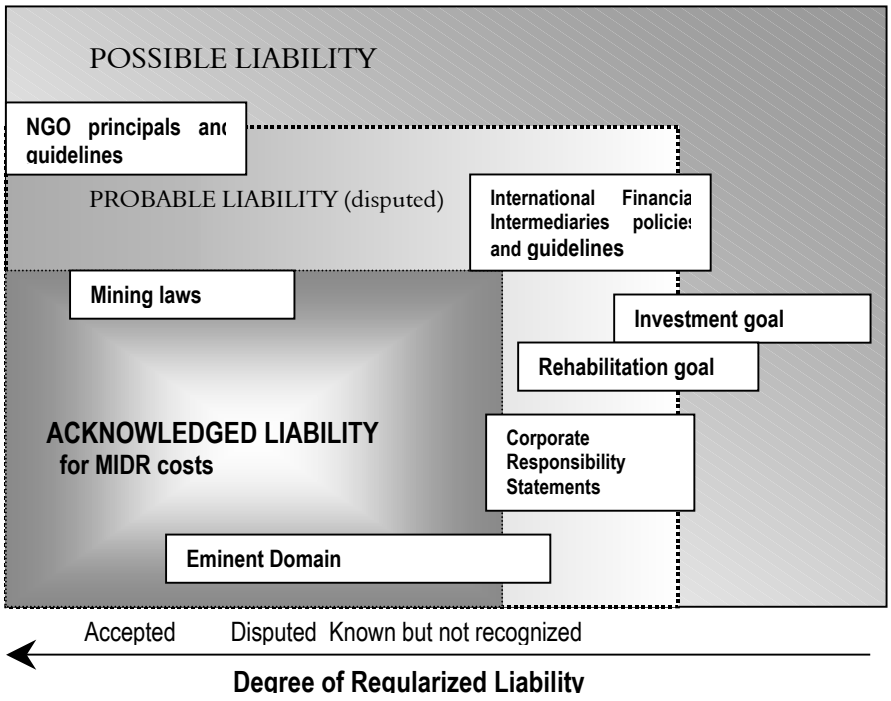
Until recently, stakeholders have been willing to absorb the costs of dealing with MIDR. Each company anticipating a displacement must at the least subjectively assesses its administrative, political, moral and financial risks, including the costs of possible work stoppages and delays, political controversies, trouble shooting, corporate board time,

[13] I favor the implementation of a development-induced displacement insurance, based on the structure of workman's compensation, as a comparable solution to the MIDR impoverishment problem (Downing 2002).

security, strained government or NGO relations, and the like. Risks to the displaced, although critical to the displacees, are not given center stage. That companies routinely ignore MIDR risks to people affected by their projects testifies to displacement's low industry profile. In contrast to workman's compensation, in which businesses are compelled to purchase insurance to limit their liability, companies have no compelling reason to do more than the legally required minimum in dealing with MIDR.

Pressures are now building from many directions to regularize liabilities that until now have been viewed as probable and possible liabilities. Governments are rethinking their willingness to absorb the new poverty created by involuntary displacement in light of public concern for local impacts. Environmental and human rights organizations are forming alliances to champion the cause of the powerless. International development banks and insurers are increasingly accountable to political pressures from developed countries. Increased scientific knowledge, including longitudinal before/after studies, of involuntary displacement processes has found that compensation is not sufficient for rehabilitation. In sum, the economic reasoning underlying the notion that compensation paves a yellow brick road to the restoration of livelihoods or post-displacement, sustainable development is wrong (Cernea 1996, 1999, 2002; Pearce 1999; Kanbur 2001, Downing 2002, Scudder 1997).

Figure 2: Regularizing Liability



Pressures to redefine liability is also appearing in different forums: in NGO recommendations and declarations; in consultants' terms of reference; in compensation arrangements within eminent domain; in self-imposed standards through corporate responsibility statements (CRS); in the redrafting and/or harmonization of liability and compensation parts of legal frameworks on mining, environment and indigenous peoples;

and in the redrafting of involuntary resettlement policies and guidelines by international development banks. An example of such changes can be seen in eminent domain; legal theories in India are moving in the direction of providing for relocation costs (especially of relocated businesses) and the government taking limited "use rights" to land rather than acquiring the land outright (Ramanathan 1996). A company might likewise obtain only these restricted use rights to land.

Liability Limits

Liability limits are established by setting different goals, restricting or broadening eligibility criteria, expanding or restricting spatial and temporal boundaries, and by including or excluding different risk elements.

Entitlement or eligibility criteria may be restricted by arbitrarily creating geographic boundaries to a displacement. Occupational categories may likewise be precluded from entitlement—the most problematic of which would be the displacement of small-scale miners by large-scale mining.[14] A major liability limitation issue involves determining which risks are and which are not acknowledged. Scientific investigation has moved some impoverishment risks within the realm of possible or probable risks, but they are not yet acknowledged liabilities. The most difficult of these are impacts not directly related to the taking of land or the destruction of physical assets like dwellings.

A more subtle way to limit liability is to declare that payments or actions be limited to "direct economic and social impacts." This method was recently folded into the World Bank's revised involuntary resettlement operational policy. In effect, the indirect/direct clause allows the borrower to arbitrarily define its liability at almost any point simply by calling a cost "indirect." At a Chile dam, for example, Garcia-Downing and I report (2001) the project owner's decision that only those directly impacted were eligible for assistance, meaning that assistance would go only to those whose homes ended up under water. A set of poor indigenous people along the shoreline of the reservoir were ineligible, even though they were placed under pressure to leave their land and make way for planned shoreline tourist developments. The correct, economic litmus test should be: If the costs would not have accrued without the project, then they are project costs and must be factored in.

Moral and economic arguments are being mustered around the issue of liability limits as companies, financiers, governments and NGOs attempt to nudge the liability boundary. And moral arguments can make the leap from academic debates to laws and policies. The ongoing discussion over displacement goals—restoration, rehabilitation and sustainable development—may have a strong impact on liability by redefining what is and is not regularized liability (Figure 2).

[14] It is unclear whether or not small-scale miners displaced by large-scale mining projects should be entitled to displacement compensation or better. Often the original exploiters of mineral wealth in an area, small-scale miners are suddenly excluded from any mining activity and lose both an essential source of income and an identity as legitimate miners (see Community Aid Abroad 2001). From the perspective of sustainability, an argument can be made that groups that have persisted on-site and in established communities for three or more generations should be considered relatively stable societies.

Governments have slightly different risk profiles than private sector companies or affected peoples. Unlike other stakeholders, governments have the option of limiting liability by declaring themselves immune from the legal actions of citizens, but they are not unaccountable. Unlike companies that may be bought, sold or simply vanish, governments persist and must, at times, to be held accountable or be forced to pay the costs of unacknowledged, unmitigated liabilities that, in the end, become mining-induced, new poverty.

5 Ways Forward

"Should the cost of reducing poverty for some be paid in the coin of impoverishment for others?"

Cernea 2002

Mining–induced displacement and resettlement and the new poverty they create are not high priority issues for the industry (see corporate survey by Warhurst 1998). This report suggests, however, that circumstances are forcing it to the surface. Issues of liability, demographics, politics, economics, and geology are already limiting mining companies' access to land and investment capital in some areas.

The MIDR process is, from the scientific perspective, well understood. Forty years of studies and lessons learned in involuntary resettlement offer up a rich vein of knowledge. The literature on displacement is mature, rich and expanding, but largely composed of ethnographic case studies. Displacement theory itself is in its infancy — barely beyond classificatory schemes of phases and identification of risk factors. And the rich experience of peoples, including those who have survived forced displacements, is untapped. Building on the available knowledge base, (somewhat) reasonable guidelines and check-lists on avoiding landlessness and homelessness have been developed by international financial intermediaries, NGOs and special assemblies. Clarity is missing in how to deal with other impoverishment risks, particularly health. Investigations are urgently needed on the effectiveness and socio-economic consequences of deploying different investment options.[15] Avoidance of new poverty will clearly come from arranging sufficient financing and moving beyond compensation to an equation based on "compensation + investment + stand-alone financing."

The key players are poorly prepared to respond to the problem. Mining companies recognize that, while well qualified in construction and engineering, they are not in the business of social development, poverty alleviation, or rehabilitation. Likewise, forced development-induced displacement is not a socio-political problem routinely faced by most governments. The fact that NGOs or academics have had long experience with a group before displacement does not mean that they are any more prepared than the displacees to

[15] Investment options include foundations, benefit-sharing schemes, education development, grants, and small business development (related and unrelated to the temporary mining operations). A key question is the effectiveness of these options for jumpstarting sustainable development and when they should be deployed (before, during or after relocation). My work on the Pehuen Foundation might help (Downing 1996)

deal with the immense economic and social disruption caused by involuntary displacement. Only one university is training peoples in development-induced displacement, and the first international professional organization—the International Network on Displacement and Resettlement, www.displacement.net—was only formed in 2000. For the immediate future, the solutions for on-the-ground displacements are likely to be ad hoc, their outcomes varying with the quality of the displacement specialists who create them.

It is too early to expect harmonization and the emergence of a detailed industry-wide approach. My suggestion of developing involuntary displacement and resettlement insurance to protect affected peoples from impoverishment is probably politically premature; too many issues are on and under the table. In the meantime, nasty things are happening to innocent people.[16] What might be done to reduce unnecessary conflict, control conflicts of interest, and avoid dumping new poverty in the tailings of future mining? How do we find solutions in a situation where the stakeholders are mostly unaware of their obligations, operating with undefined limits, and immersed in conflicts of interest?

MIDR Contingency Clause as a Precondition in Project Preparation

A MIDR Contingency Clause (MIDR-CC) might offer an interim on-the-ground solution. The MIDR-CC would be an agreement that all likely MIDR risks are assessed, goals set, costs estimated, organizational arrangements proposed, and financing secured *before* a mining project goes forward. The agreement would be a publicly disclosed, legally binding agreement among all parties (relevant government agencies and entities affected by the MIDR, the company and their financial backers and the affected peoples). To contain conflicts of interest, the MIDR-CC would transfer the assessment and mitigation work to an objective (scientific) third party competent to train and work with affected peoples using participatory methods (see Downing and Garcia-Downing 1996b www.ted-downing.com/ for examples). All parties willing, the clause might also include a set of operating principles for dealing with the MIDR assessment as well as subsequent financial and organizational arrangements for covering all risks.

The MIDR-CC is important for what it does *not* say. It is not an agreement to go forward with the mining endeavor. It does not propose a "one size fits all" solution on every MIDR situation—for all companies, for all governments, or all financiers. It does not specify what risks are and are not to be considered; these are determined by a technical analysis. And it does not state who is and is not liable for different risks. It intentionally avoids any language that assigns or denies liabilities, and signing the agreement implies no other commitment on the part of stakeholders. In sum, MIDR-CC is a preemptive decision from all stakeholders to avoid dead-end discussions for establishing blame or demanding respect, and to contain inherent conflicts of interest.

The MIDR-CC must include a clear plan for the informed participation of all potential

[16] The cover piece of this report lists only a few of the hundreds—perhaps thousands—of sustainable communities that have disappeared. For an industry well known for leaving ghost-towns in its wake, this may not seem important. But these were sustainable communities dismantled to make way for mining.

PAPs, with initial eligibility for participation defined in economic and sociological terms, not by some arbitrary lineal distance from the project fence. Affected peoples (broadly defined) should not enter into an agreement without competent, independent legal advice; negotiation support; and training in MIDR-related issues in a culturally appropriate language and forum. Support means that APS will gain routine access to communications with any group of their choosing and be given the capacity to consider what will happen to them under alternative futures (Downing and Garcia 2001). Without this provision and support, the MIDR-CC risks violating the civil and human rights of those affected. Since APS cannot be expected to pay for this support themselves, early provision might be made for internationally recognized human rights and development groups to arrange for and monitor the quality and independence of local legal representation.

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