1 Why is the DDI Important at a Micro Economic Level?

A large number of actors

A huge number of people, mostly young men, work in the alluvial diamond fields of Africa. In Sierra Leone there may be as many as 120,000. In the Congo, the government estimates 700,000. In Angola, despite the recent expulsions of illicit Congolese diggers, there may still be 150,000. Taken together with diggers in Guinea, Ghana and elsewhere, there are probably a million African artisanal alluvial diamond diggers. There are perhaps another 200,000 in Brazil. The number of artisanal alluvial diamond miners can be placed conservatively at a million; it may actually be half again as high. As in other types of mining, there are more people involved in informal diamond mining than there are in the formal sector.

Despite its size and importance, the informal diamond mining sector is characterized by deep poverty and other social ills

Almost all artisanal miners are unregistered and unregulated. Most work for nothing except what they are lucky enough to find. Their work is dirty, hard, sometimes dangerous, and it produces little more than a couple of hundred dollars a year for most diggers. In fact, the competitive scramble in a largely informal economy only serves to drive prices down at the pit level, creating a lucrative business for middlemen.

Children are widely involved; residents of the mining areas complain of environmental degradation, water pollution, and the influx of a migrant labour force with high rates of prostitution and HIV/AIDS. Family and societal violence follow. And most alluvial diamond diggers lead hard, insecure, dangerous and unhealthy lives. With average earnings of less than a dollar a day they fall squarely into the broad category of “absolute poverty”.

The informal diamond mining sector is a breeding ground for insecurity
In addition to the standard kinds of insecurity that result from poverty, underemployment and overcrowding, the unregulated diamond mining areas of Sierra Leone, Angola, the DRC and elsewhere present other security challenges. Attempts by government to deal with illegal miners have often resulted in violence. And the mining areas have attracted more than young men looking for diamonds. They have attracted unscrupulous buyers, money launderers, weapons and drug traffickers, and rebel armies. Without better regulation and development, these threats remain. Mineral resources respect no boundaries.

**The Artisanal Mining Poverty Trap**

Large numbers of miners chasing limited resources

Low income and lack of investment opportunities

Low productivity

Inadequate and inappropriate technology

Environmental Degradation

The cycle is exacerbated by legal and regulatory failures and social instability

*The importance of artisanal diamond mining to the overall economy of several countries*

Despite the low levels of revenue generated for governments from artisanal alluvial diamond mining, the Antwerp value of such diamonds may be as high as a billion dollars annually. This generates income for at least a million artisanal diggers or more, and their families. It also generates investment in the local economy. It can therefore be extremely important from a survival and a development perspective.

*The importance of artisanal diamond mining to the diamond industry at large*

Artisanal miners produce at least ten per cent and perhaps more of the diamonds that go into the jewellery shops of London, Tokyo, Paris and New York. They are an important part of the diamond industry.

*Successful investments could yield important dividends*

Given the number of people involved, and given the half century of destabilization fostered by unregulated informal diamond economies, any successful investment could
yield major dividends for miners, governments, the general population of diamond producing countries and the industry. Real change could reduce the chaos and instability that the diamond fields spawn. At a minimum, diamonds could produce decent incomes for hundreds of thousands of families, rather than unsafe, unhealthy, badly-paid piecework.

Artisanal diamond mining has relevance for every single Millennium Development Goal

Artisanal alluvial diamond miners subsist on poverty livelihoods of a dollar a day or less. Artisanal mining keeps children out of school, leaves women to manage families and homes and is a known vector for disease, especially malaria and HIV/AIDS. It damages the environment. Tackled in a comprehensive manner, these problems lend themselves to the MDG’s 8th goal: the creation of a global partnership -- for diamonds and development.

2 What are the constraints to a free, fair and competitive market for artisanal diamond miners?

While the alluvial artisanal diamond economy may appear to be competitive it is not. At the level of the digger, it is a dog-eat-dog casino economy. At the export level in most countries, the market is dominated by a handful of companies and individuals. At the middleman or “dealer” level, price fixing, gouging, opportunism, fencing and smuggling are endemic. There is no free market in the artisanal alluvial diamond economy.

In Sierra Leone, 74 per cent of all exports in 2003 were from five companies or individuals, all of them foreign nationals. The following year, 91 per cent of the exports were handled by only four firms. In the DRC and Sierra Leone (and in Angola until recently), a high proportion of the middlemen have also been foreign nationals. The result is a concentration of profits in the hands of a small number of dealers and exporters, most of whom re-invest very little in the industry or the country. The value they add to the diamond trade is the pittance they pay the diggers – often little more than a meal a day – and the sieves, shovels, pumps and loans needed to keep the diggers working.

The issue, however, is not just one of middlemen and excessive profits. Because diamonds are internationally negotiable, they can serve as a substitute for currency and can be used to finance imports and to hide the export of profits. For many dealers, diamonds are a convenient financing vehicle for their retail trade. In fact the imported rice which is often a form of payment for diggers may be financed by diamonds. Middlemen may well be able to pay higher-than-market prices for diamonds, financing the transactions through price manipulation on imported foodstuffs.

It does not take much study to understand that there are possibilities for change at the micro level. The large mark-up between the digger and the first point of sale is enormous. And the mark-up between the first buyer and the exporter is also large. If exporters could
move closer to diggers and pay better prices – i.e. closer to market value – those who actually mine the diamonds might be able to move beyond their poverty-level incomes. The change would probably not be dramatic in absolute terms, because even if the return to diggers were to increase threefold, the net effect would not be great. But in relative terms, it would be enormous. Tripling the income of a million Africans living in poverty would be a major achievement.

Despite the potential, the social, historical and economic obstacles to change are enormous. Five of the most immediate, from the digger and mine operator’s perspective:

- Diggers are often completely unorganized, except in gangs that suit the holder of the mining license;
- Often there is a conflict – real or perceived -- between the interests of alluvial diggers and those of larger companies with more formal mining operations;
- For diggers, getting access to land is fraught with costs and difficulties; access to finance and even slight improvements in technology is equally problematic;
- Diggers expect and need immediate payment for what they find. Any initiative that requires them to wait, even if the promised prices are higher, is likely to run into problems;
- Getting a digging operation licensed can be enormously time consuming and expensive. In each country there are a dozen or more costly and time-consuming steps required before any mining can officially commence. Bribes are required almost every step of the way. The same is true for dealer and export licences. Systems must be streamlined and the cost must be reduced before any successful pilots can be taken to scale.

3 Are there entry points, pressure points or “choke points” that might advance initiatives that aim to support artisanal miners? Are there identifiable barriers for “bad actors”?

Meaningful change in the political economy of alluvial diamond buying may be a zero sum game. In other words, better prices for diggers will mean lower prices for middlemen. There are large amounts of money involved, and the potential for harassment and violence is enormous. Governments will have to make special arrangements to encourage and protect initiatives that provide better prices to diggers, and they may be obliged to de-license or restrict some existing dealers.

Middlemen, however, provide a service – at least in the eyes of those they buy from and sell to. Nobody forces diggers or mine license holders to sell to middlemen. They do so because the middleman provides working capital and a quick, hassle-free purchasing arrangement. His stock in trade is ready cash and simplicity. If this can be provided by others, those currently in the business would face competition that might result in better prices for diggers.
That said, the most obvious pressure point in most countries is the diamond exporter. These are very few in number, and it may be possible to persuade them to buy their diamonds in different ways, and from different people.

If exporters can ensure better prices for diggers, they are likely to see fewer diamonds leaking away to other buyers. In other words, diggers will steal fewer diamonds if the price in the formal market is good.

One barrier to the entry of “bad actors” is the local community in mining areas, if there are incentives enough for it to act against bad actors, rather than with them. Communities will protect what they perceive to be in their best interests. Meaningful rewards for the arrest of illicit operations, quickly paid, might be a further way to dissuade bad actors.

4 Are there positive and/or negative lessons from current or previous initiatives?

Since colonial times, African governments have sought to limit the influx of people into alluvial diamond areas by a variety of means: pass systems; arrests; fines; imprisonment. There are reports of the shooting of illegal diggers on a mining concession in the DRC, and Angola has recently deported tens of thousands of illegal Congolese diamond miners. In Brazil, miners and mining have been banned from the lucrative Cinta Larga diamond fields. Few of these initiatives have ever worked for long.

There are, however, a few recent examples of alternative approaches:

- The government of Ghana has created one central bourse in Accra managed by the Precious Minerals Marketing Company; sellers are paid by cheque through the PMMC with funds placed on deposit by registered buyers and exporters. The system is simple, open and secure;
- The government of Sierra Leone has created a “Diamond Area Community Development Fund”. A percentage of the diamond export tax is returned to communities where diamonds are mined. The aim is to give something back to diamond communities and to encourage local commitment to legal operations. In 2003 more than $500,000 was returned to diamond mining communities through the DACDF. In 2004 the fund was suspended because of irregularities, pending a review;
- Sierra Leone is also looking into the possibility of setting up public information office in order to educate diggers on issues such as diamond prices;
- The government of the DRC has created SAESSCAM, Service d’Assistance et d’Encadrement du Small Scale Mining, to assist with the creation of artisanal mining cooperatives, training and financial assistance;
- With support from USAID and the World Bank, the Peace Diamond Alliance in Sierra Leone is organizing diggers in a cooperative arrangement and plans to hold diamond tenders for local and international buyers in the diamond area itself, bringing international prices to the diamonds, instead of the reverse;
The government of Brazil has encouraged the formation of garimpeiro cooperatives in Juina Province. These cooperatives are young, and the results, in terms of probity, earnings and environmental protection, have so far been very mixed.

These pilot initiatives remain small, and each one has its own problems. Other generic initiatives have been discussed, including:

- loans to diggers, enabling them to invest in alternatives to diamond mining, such as agriculture;
- Loans to diggers to release them from the ubiquitous “supporter” systems, which are usually tantamount to indentured labour;
- training for diggers to increase their productivity;
- improved market and price knowledge for the digging community through training and publications;
- the provision of special benefits or social services for licensed diggers (i.e. creating economic or social incentives for diggers to become licensed);
- media campaigns to build public awareness and commitment in diamond mining areas to fair pricing and legitimate behaviour on the part of miners, traders and government officials;
- external assistance aimed at increasing governmental capacity for effective oversight of labour, safety and environmental regulations, and probity in the overall diamond trading system;
- the creation of bourses in capital cities and regional diamond towns, including the provision of valuation services, to encourage competitive financing, greater transparency and better prices for miners.

The problems and possible solutions can be clustered under a variety of headings:

- policy and regulatory framework: on mining, micro enterprise development, licensing, land tenure and access to land;
- technical issues: access to technology, technical training;
- financial issues: access to credit and finance; access to markets and market information;
- social and environmental issues: health and safety; gender and child labour; environmental protection;
- institutional issues: governmental regulatory capacity; support capacity; security – personal and institutional; organization of miners; the role of donors and civil society.

Ultimately the most important issue is the development of free and open access to markets, closing the distance between the digger and the market, and reducing the barriers to digger participation in the formal economy (e.g. the cost and difficulty of entry, access to land, information and capital.).
What capacities exist to deal with the challenges and opportunities? What additional capacities are needed?

The inadequacy of regulations as a solution

As noted above, forced removals and pass systems have rarely worked for long in the regulation of alluvial diamond fields. Other forms of regulation have also failed. The International Labour Organization (ILO) has specified one of the major difficulties with small-scale mining:

Regulations to control and tax [small scale mining] are often in place, and the existence of informal or illegal operations at this level is generally attributable to a lack of inspection and the lax enforcement of regulations rather than to the lack of a legal framework, much the same as for small manufacturing plants... The size and character of small-scale mining of this type, [however], has often made what laws there are impossible to apply or has highlighted their inadequacy.5

Two solitudes: mining and development

Most ministries of mines have little experience of what might be called “grass roots development”. Their primary mandates usually run to much larger mineral extraction operations, and most of their day-to-day experience outside government is with companies in the formal sector. Most governments everywhere in the world, in fact, have little knowledge or understanding of the informal sector. Conversely, development and social sector ministries have traditionally shied away from extractive industries, except in the provision of ancillary social services. They rarely tackle the core issues discussed in this paper head-on.

While many NGOs, national and international, have seen extractive industries as a target for reform-oriented campaigns, few have actually become involved in development projects directly related to the industry itself. Similarly, few bilateral and multilateral agencies have taken a direct interest in the political economy of the informal mining sector. DIFID and USAID have recently made investments in understanding the diamond industry and its informal sector better, and have contributed funds to pilot projects. UNDP and IDRC have commissioned studies on artisanal mining. The CASM initiative, supported by the World Bank, UNECA and DFID is another recent initiative. Generally, however, the development community has so far shown little interest in diamonds as a vehicle for development.

What more do we need to know?

• In any pilot or policy intervention, it will be important to have good baseline data on income levels in order to determine the success or otherwise of an intervention;6
• It would be helpful to establish a “beneficiation index” to determine what percentage of the Antwerp market price actually remains in the producing country.
This is important because it is an indicator of the economic multiplication factor (i.e. the turnover of money in the local economy);
- It would be useful to know what percentage of Antwerp prices are actually received by diggers in various weights and qualities of diamond. Much has been written about this, but empirical data is weak;
- This paper posits a lack of competition at the middleman level while in fact there are sometimes dozens of buyers in key diamond towns. To what extent does this help to push prices up for diggers? If it does not, how does the implied price-fixing take place?
- Is there a clear distinction to be made between different levels of middleman – e.g. the “supporter” (often the license holder and first point of contact for the digger), and the dealers who buy from them?
- With increasing sales through the formal diamond systems, it would be useful to know what percentage of diamonds is still being smuggled out.

7 Who needs to be involved in taking the issue forward?

Governments

While an enabling regulatory framework will be important to sustainable change, this paper takes as a starting point the ILO argument that regulations alone are insufficient for genuine forward movement. Nor is the issue primarily one of enforcement. Where regulations are concerned, adaptive legal and fiscal regulatory arrangements, greater simplicity and a better understanding of the motivation of artisanal miners are likely to go a lot farther than the heavy-handed policing tactics of the past.

The most important element of change, however, is more likely to be the creation of an enabling *economic* environment for artisanal miners. This topic may be more the purview of this paper’s companion piece on the macroeconomic environment. Needless to say, however, governments will be one of the most important parts of any meaningful change in this area.

Industry

The diamond industry is absolutely essential to advancing this issue. The industry has been a key part of the Kimberley Process, not just because it was the subject of the exercise, but because it understood the diamond pipeline and the political economy of the business, from mining to retail sales. Here too, the industry has the necessary knowledge, as well as important market information and projections. And it has a vital stake in the reputation and the long-term security of its product. Industry can advise and participate in virtually any aspect of the DDI that might arise, from policy advice and pilot projects to market analysis and consumer education.

It is important to note, however, that “the industry” is not homogeneous. The interests of large companies, small companies, middlemen and exporters are not congruent. Each set of players will bring different experiences to the discussion. It has often been said, for
example, that middlemen, especially the Lebanese diaspora, need to be involved in discussions about ways forward.

**Donors**

Donors will have an important role in assisting with policy advice, the funding and dissemination of findings from pilot projects, and in helping to take successful pilots to scale. The community of interest among donors on this topic is so far very small. In addition to becoming more active themselves, those that are currently involved can play an important role in bringing others on board. And while direct involvement may not be possible for some, it will be important that donor programs and projects in other areas complement DDI-type activities, rather than the opposite.

**Civil Society**

National and international NGOs have an important role to play in devising and managing pilot projects, and in helping to take successful pilots to scale. They have grass roots contacts and experience that often elude government and donor agencies. They can bring a wide variety of other perspectives to bear on this neglected area, and they can widen the context, dealing with some of the social, health and educational problems confronting artisanal miners.

**Miners**

In all of this, it will be extremely important that the voices of artisanal miners are heard, *and listened to*. Finding ways to understand their lives and to bring their concerns, experience and ideas into the discussion will be extremely important if the DDI is to be effective in the long term.

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NOTES

1 This is one of two background papers emerging as a result of a January 2005 meeting held in London to discuss the possible creation of a Diamond Development Initiative. Participants requested some disaggregation and elucidation on the many issues discussed at the meeting, and several helped with valuable comments on an early draft of this paper.


3 This is a guesstimate and is open to correction. 80% of Sierra Leone production, 50% of DRC and 25% of Angola would represent approximately $775 million on a global production of $10 billion (2004). Add artisanal production in South Africa, Central African Republic, Ghana, Guinea and Brazil, and the total would represent at least ten per cent of annual global production. It would be larger if higher percentages are used for the main alluvial producers. The companion paper on macroeconomic issues says that countries with large artisanal or mechanized alluvial productions represent some 25-30% of the world’s output – Angola ($900 million), Namibia ($700 million), DRC ($900 million), Sierra Leone, Guinea, Republic of Congo, Tanzania and others.

4 In Angola, the middleman may be a military officer whose economic influence in the community is limited to his purchase of diamonds. In fact a corrupt and violent military elite are highly problematic where change is concerned in both Angola and the DRC. In Sierra Leone the middleman is more often of Lebanese origin. The Lebanese community, despite the challenges it presents, is seen by many as a mainstay of the economy.


6 A recent article by Marieke Heemskerk examines the problems in gathering reliable data from artisanal and small-scale mining communities (see bibliography).