
Sustaining Livelihoods in Southern Africa

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Theme: Sustainable Livelihoods and Small Scale Mining

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Editor's notes

This month's theme is artisanal and small scale mining (ASM) and sustainable livelihoods. This bulletin provides a critical analysis of the impact of small scale mining on rural livelihoods. Marie Hoadly and Daniel Limpitlaw of the University of the Witwatersrand are the main authors of this newsletter.

Some background to Artisanal and Small Scale Mining

Globally an estimated 13 million people earn their living directly from artisanal and small-scale mining (ASM) and up to 100 million depend on the sector. These activities often cause extreme environmental and social impacts and seldom contribute to government revenues. In their current form, while contributing to livelihoods, they cannot be regarded as sustainable, but they provide emergency poverty relief and daily sustenance.

ASM is practiced extensively as an alternative economic activity in times of stress. It is also highly unregulated. An NGO working with ASM estimates that between 80 and 90% of ASM activities are illegal (Dresschler, pers comm., 2003). Up to 50% of artisanal miners are women (Borla, 1997, UN 1996, both in WA, 2000). Growth in the ASM sector is rapid, as the sector is seen as having the potential of providing a quick route to riches but, more realistically, a means of ensuring daily sustenance. Because the miners are used to working in the most primitive conditions, and with the most rudimentary equipment, they are able to carry out their activities in harsh and remote environments, where governments have not kept pace with the growth of the sector, or have ignored it. Therefore ASM flourishes in environments where the rule of law has collapsed and where unscrupulous traders can acquire minerals and metals without having to pay taxes or levies. In mineralised regions, and in developing countries, ASM appears to be a favoured economic response by poor people to crisis and poverty.

While ASM provides income for the miners, if externalities are included the benefits provided are outweighed by the costs and there is usually no net generation of wealth for the area. These costs may be borne directly by the miners, such as poor safety and health conditions in the workings, or may be externalised onto the surrounding communities, such as environmental degradation in a wider area around the workings and social disruption (such as alcoholism). In some instances, profit can only be generated by employing family members at wages below subsistence levels.

Because of its marginalized, frequently illegal and clandestine nature, the sector is usually regarded as one without a community context. However, artisanal miners do form part of a community and if ASM is to be evaluated in terms of its contribution to sustainable livelihoods (SL), this needs to be done against the characteristics of a sustainable community.

Artisanal Small Scale Mining and the Sustainable Livelihoods approach

To promote SLs, ASM should increase the sustainability of poor people's livelihoods in four inter-related ways:

- improving the community's ability to cope with, and recover from, shocks and stresses;
- improving economic effectiveness, or the use of minimal inputs to generate a given amount of output;
- promoting ecological integrity by ensuring that livelihood activities do not irreversibly degrade natural resources within a given ecosystem; and
- enhancing social equity, which suggests that promotion of livelihood opportunities for one group should not reduce options for other groups, either now or in the future.

ASM is often a short-term coping mechanism in the face of shocks and stress, but it is a hand-to-mouth activity and does not promote long-term sustainability. In the case of a gold-rush, the sector is itself responsible for placing the local community under stress, and contributes little that could increase the community's coping mechanisms. The inherent characteristics of the sector – resilience and adaptability – are used for short-term and individual gain or survival, rather than a co-operative or communal objective.

Ecological integrity is compromised and precludes other economic activities such as agriculture. In extreme cases, ASM activities result in the destruction of the ecosystem, not only in the immediate vicinity of the operation, but frequently across national boundaries by pollution of the water sources. Deforestation, river siltation and water-course diversion are just some of the impacts.

The clandestine nature of the activity inhibits access to formalized financial institutions, so limiting saving and access to technology. This inhibits investment in the mining operation. Consequently, rather than saving there is a tendency for men to spend their money on prostitution, gambling and alcohol (Hentschel et al., 2001) with associated risks of HIV/AIDS. ASM activities can accelerate the destruction of traditional livelihoods and leadership structures and increase social ills. It is left to women, who earn very little in the ASM sector, to spend money on their families.

Sustainable livelihoods require participation and development of social capital. They require access to good governance and ecological, socio-cultural, and economic resources. Fundamental requirements are equity, access to resources and participatory decision-making. The nature of the sector, and the manner in which its activities are conducted do not align with any of these requirements. ASM does not contribute to the formation of social capital, except in those cases where miners have formed co-operatives. The characteristic individuality of miners excludes participation, while the illegal nature of many ASM operations bars access to good governance. Miners do not have title to the land, nor the minerals deposits that they mine. They consequently do not care if these resources are sterilised during mining operations. They thus deprive themselves, and adjacent communities of ecological resources. They are isolated from society and the risky nature of their business denies them access to economic resources. Therefore ASM has a significant negative impact on communities.

In its current form, the ASM sector is important as a disaster-coping mechanism. It is critical that a way be found for the sector to contribute to livelihoods and the alleviation of poverty in a sustainable manner. Currently, there are usually few, and in some cases no, alternatives to ASM. Many people willingly enter the sector because they see it as an attractive alternative, but many more are forced into it because of poverty and a lack of other employment opportunities. However it is essential in rural development plans that ASM should only be one of a number of alternate economic activities.

Essential and enforced legislative requirements will improve environmental performance, and health and safety at operations, and will reduce and finally eliminate the worst aspects of the sector, such as child labour. These measures will increase costs, making the activity less profitable, and some people will be likely to leave. A smaller sector will be easier to monitor and this will contribute to improved governance in the sector.

Therefore legalisation is the most important step to developing the sector, both in minimising the negative effects, and in permitting legitimate expansion with associated access to finance and technology. Many countries, such as Tanzania and Ghana, have enabling legislation in place, but in general, developing countries' governments usually lack the capacity (and, in some cases, the political will) to enforce and monitor legislation. Yet every other step which could be taken to developing ASM depends on the support of the state. If ASM is to contribute to sustainable livelihoods, it has to fall within the ambit of the law.

How can the ASM sector be transformed to build the different capitals of sustainable livelihoods?

Without state support, these measures can only have limited success, but the following potential is present:

1. Formation into co-operatives and associations will increase:
 - i. social capital, by involving ASM in formal and informal networks,
 - ii. human capital, by making it possible to access training to skills and information relevant to the sector,
 - iii. physical capital, by improving access to appropriate technology, and
 - iv. natural capital, by the exploitation of viable ore bodies.

Co-operatives and associations have internal self-regulation, and there is greater potential for ASM to contribute to economic efficiency and environmental integrity. Co-operatives and associations reduce marginalization, open access to funding, training, technology, extension services (building social, human, physical capital)

2. Legalized buying and selling channels ensure a fair price for miners. The state is then in a position to insist on licensing and paying of taxes. The sector can thus become a revenue generator.
3. Operation outside of the law increases social instability and decreases access to social security nets, health and education services. Legalizing the sector will reduce these negative characteristics.
4. Very few NGOs or development agencies focus on ASM. Extension services to small scale mines should be encouraged and adequately resourced. Recognition of development partners in the sector (such as NGOs and development agencies) can compensate for the lack of enforcement and monitoring capacity. This will increase natural, economic and social capital.
5. Government capacity to enforce and monitor ASM operations can be augmented if ASM associations insist that members recognise their responsibility towards the surrounding community and accept responsibility for a large degree of self-regulation. The community can be involved in aspects such as monitoring.

The correlation between low HDI and high employment in the ASM sector emphasizes the poverty alleviation potential that poor people see (and to some extent, find) in ASM. Governments in developing countries wishing to address poverty need to focus on this sector, where a large percentage of their citizens are trying to earn a livelihood in adverse conditions with significant negative effects on local communities and the environment.

Key documents on ASM

Artisanal mining for sustainable livelihoods – (United Nations Development Programme Strategy Paper). November 1999. This strategy paper document the extent of artisanal mining at the global, regional and national level. It also determines the relationship between poverty and

artisanal mining, and discusses a framework strategy that facilitates the development of sustainable livelihoods in artisanal mining communities. Finally the paper examines UNDP's role in such a strategy. The paper can be viewed on:

http://www.undp.org/sl/Documents/General%20info/Artisanal_mining/Artisanal_mining.htm.

Small scale mining and sustainable development within the SADC region. The article provides a generic overview of small scaling within the SADC region with emphasis on Malawi, Zimbabwe, South Africa and Botswana. The relationship between small scaling mining and sustainable development is critically analysed. It's been edited by Bernd Dreschler of santer/ITDG, August 2001. The article can be viewed on. http://www.iied.org/mmsd/mmsd_pdfs/asm_southern_africa.pdf.

Useful Internet resources on ASM

ITDG – Intermediate Technology Development Group: <http://www.itdg.org/>

CASM – Communities and Small Scale Mining: <http://www.casmsite.org/>

International Labour Organisation: www.ilo.org/

UNDP: http://www.undp.org/sl/Documents/General%20info/Artisanal_mining/Artisanal_mining.htm.

World Bank: <http://www.worldbank.org/html/fpd/mining/key/Artisanal/Artisanal.html>.

Communities and small scale mining: <http://www.casmsite.org/db/index>.

Mintek Small-scale Mining Division: www.mintek.co.za/ssm/home.htm/

UNCTAD's Mineral Resources Forum: <http://www.natural-resources.org/minerals/smscalemining/>

IIED (International Institute for Environment and Development): www.iied.org/mmsd/

Business Partners for Development, Natural Resources Cluster: <http://www.bpd-naturalresources.org/>
Business Referral and Information Network:

<http://www.brain.org.za/SUPPORT/topics/ssmining.html#links>

UNEP Mercury Programme: <http://www.chem.unep.ch/mercury/mercury%20programme.htm>

SL activities/programmes

1. The Bradford Centre for International Development in partnership with its research partners from South Africa, Khanya, Tanzanai (Mzumbi University) and Uganda (EPRC) will hold a workshop looking at the institutional implications of sustainable livelihoods approaches on development intervention, at Bradford University, UK on 24&25 February. For more information, please contact Tom Franks at t.r.franks@Bradford.ac.uk.
2. Sustainable Development Practices on Mine Sites – Tools and Techniques. The Environmental Evaluation Unit (EEU) at the University of Cape Town, the School of Mining Engineering, University of the Witwatersrand (Wits) and the Australian Centre for Mining Environmental Research (ACMER) are offering a practical, three-day course on sustainable development in the mining and metals industry. The course will provide participants with an overview of the application of sustainable development concepts, principles and tools to the mining life cycle and critical problems within the South African mining industry. The course will be conducted in Johannesburg from Monday 8 March – Wednesday 10 March, 2004. For further information contact: Daniel Limpitlaw: limpitlaw@egoli.min.wits.ac.za 011-7277413 or Marie Hoadley: hoadley@egoli.min.wits.ac.za 011-7177422
3. One of the SLSA partners, CARE South Africa - Lesotho, has launched a new five year programme on Water, Health and Livelihoods - the WHELL Project - in Mpumlanaga and Limpopo provinces of South Africa. The programme will work with partner organisations to develop and promote replicable and locally accountable sustainable water and sanitation services that mainstream HIV/AIDS and gender equity. The programme is being funded by AusAID under their Australian Partnerships with African Communities Programme. For more details contact Joanne Abbot, Programme Coordinator at CARE South Africa - Lesotho at joabbot@caresa.co.za.
4. As a form of capacity building the International Institute of Rural Reconstruction (IIRR) has organised a training course on participatory monitoring and evaluation (PM&E). The course is designed for development program/project executives, extension officers, field personnel and development research leaders who design, manage and/or execute community-based

development. It is scheduled for 8-26 March 2004, Y.C. Yen James Center, Silang, Cavite, Philippines. <http://www.iirr.org/index.htm>. For more details contact Monette Pacia, Email: Monette.Pacia@iirr.org

5. The Cody International Institute is offering 3-week certificate programme that offers senior development workers and policy makers exposure to several practical assets-based tools designed to help community leaders build (or rebuild) a community-driven development process. The course also explores the appropriate role for intermediary organisations in promoting and supporting community development from the inside out. <http://www.stfx.ca/institutes/coady/Participatory.html>. For more information please contact the Coady International Institute Register, Mildred Toogood at coadyreg@stfx.ca.
6. The Institute of Development Studies, University of Sussex, UK, is offering anew MA in Participation, Development and Social Change starting in May 2004. The programme aims to deepen knowledge, innovation and practice of participatory approaches for engaging people in decision-making and active citizenship. It is designed for experienced practitioners, to help them deepen their abilities of critical reflection, analysis and application of participatory methods. <http://www.ids.ac.uk/ids/teach/mapart.html>. For further information contact Julia Brown Email: J.Brown@ids.ac.uk.

Future topics

We welcome feedback, ideas and contributions for upcoming topics. Future topics will include the highlights of the Goodbye to Projects? project, and grant-making.

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Sustaining Livelihoods in Southern Africa is an initiative of Khanya-managing rural change, and CARE. The editor is Tsiliso Tamasane and he can be contacted at tsiliso@khanya-mrc.co.za, tel 082 499 5497. Previous newsletters are available at the Khanya website, www.khanya-mrc.co.za. We welcome contributions, of events, relevant documents, comments etc.
