

Artisanal and small-scale mining – agriculture linkages

Research summary

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Democratic Republic of Congo

Author

Decision Support Unit

This is a summary of a research paper produced for the UK Department for International Development's (DFID's) private sector development programme in the Democratic Republic of Congo (DRC). This study was developed through a collaboration between **Oxford Policy Management** and **Pact UK**.

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Introduction

This is a summary of a research study undertaken for the DFID private sector development programme in the Democratic Republic of the Congo (DRC). **The full version of the report can be downloaded [here](#)**

The **study examines the relationship between artisanal and small-scale mining (ASM)¹ and agriculture in the DRC**. It aims to provide an evidence base to broaden understanding of the stability and livelihood promoting qualities of the two sectors. The analysis is used to provide recommendations on how to promote the development of the sectors and build stability in the DRC. The recommendations arising from this analysis are wide-ranging. From highly complex proposals that, in effect, require a change in the political economy to more achievable suggestions that can be implemented by an international development agency without significant progress on the structural constraints that exist.

The full report complements an accompanying literature review and is based on fieldwork carried out in Kinshasa, North and South Kivu and the Kasai in the Congo in September to October 2019. The context is the **very poor economic performance since Independence in 1960. The level of conflict and violence since the 1990s has been extraordinarily high and continues** – despite the War having officially ended in 2003. The damaging effect on agriculture has resulted in **very high levels of malnutrition across the country** and particularly in our minerals-rich study areas.

¹ In this study the terms artisanal, and small-scale are used interchangeably to refer generally to ASM activities. There is no universal definition of ASM due to the highly context specific and dynamic nature of activities. But generally, these operations are comprised of low-tech, labour-intensive mineral extraction and processing.

The political economy of conflict and development

The picture on the ground is of **almost complete institutional collapse in Government and many civil society institutions**. Whilst policies and regulations promulgated in Kinshasa are generally sound, they are not being implemented appropriately on the ground. In some cases this is because spheres of local government and line departments are not funded adequately. But, even where funding is adequate, the Government agencies mandated to support miners and farmers are often unable to provide the needed level and type of support, and in some instances even harass and extort these 'invisible' people.

Cooperatives and women's groups could provide an institutional structure which benefits their members. However, most of the mineral coops reviewed do not represent the interests of ordinary members and instead have ownership structures that only include the top level founding members, investors, and managers creating elite capture. Contrastingly, all the women's groups the study team met were led by professional women in leadership positions in other organisations. This form of elite capture appears to impact less negatively on the activities of these women's groups, compared with most formal mineral cooperatives.

The **main institutions which appear to focus on the needs of the population are some NGOs**. Many of these focus on short-term emergency relief, which is not necessarily appropriate in a context of protracted crisis. But some have a more developmental orientation.

The sectors: agriculture and mining and economic development

Mining livelihoods contrast sharply with those of farmers. An individual mine worker will typically relocate to the mine site from a farm and earn between four to ten times as much as a smallholder household. As elsewhere, mining appears to be a very dangerous livelihood in the DRC with a very high rate of fatal accidents and due to the high value of minerals mine workers can be target of hassle and extortion by others, including in some cases government workers. Without additional robust monitoring systems and safeguards, an unintended consequence of mineral development initiatives is that by bringing miners into frequent contact with multiple government agencies there is a greater potential for corruption. Though there are already mineral traceability schemes in place to address such issues.

Despite the agricultural potential of DRC, farming livelihoods are being depressed by two binding constraints. The roads are so poor physically and corruption by officials so intense that it is difficult and sometimes impossible to transport produce to market. In the Kivus, access to land by smallholders is challenging and expensive. Secondary constraints are the lack of access to quality inputs and the lack of Government agronomic support. The consequence of this is that smallholder agriculture is becoming untenable for many and there is evidence that agricultural households are increasing diversifying to earn income off-farm.

There are real, tangible costs to farming communities from mining activity. The two biggest cost drivers in farming – land rent and labour – become more expensive as land is lost to the mining sector and rural labour markets tighten. For ASM, it is often a challenge for operators to implement environmental regulations. This is due to the high degree of informality of the sector including limited knowledge among artisanal miners beyond simple backfilling techniques, lack of financial and material resources and incentives, and lack of awareness of legal requirements, as well as limited monitoring and enforcement. The result is greater instability and tension between mining and farming and immediate negative impacts for downstream users and farmers living near the mine sites. Soil erosion, ground collapse, pollution and the trampling and theft of crops impose real costs on farmers. A weakened agricultural sector receives a boost in local demand for food but is unable to respond adequately to the surge in demand for food from mining and so food prices increase to the detriment of the food security of the majority.

Overarching and reinforcing these negative effects is the **difficulty of the state to implement its own laws to protect land rights, the natural environment, the public and particularly women.** The laws, regulations,

organisations and policies in Kinshasa purporting to support farmers and miners are well meaning but are lacking implementation on the ground in the study areas. The government agencies tasked with implementing these formal rules and technical support have instead focused mainly on formal tax and revenue collecting activities and in some cases agents have used their position to receive informal payments.

Inherent to these negative interdependencies, two important positive aspects stand out.

1. First, the tightening of rural labour markets increases the price of agricultural labour which we know to be one of the most powerful early indicators and generators of broad-based economic development.
2. Second, although the supply side response by agriculture to rising food demand from mines is unable to prevent food price increases and food insecurity, mining is clearly providing a stimulus to agricultural development.

The positive synergies between mining and agriculture are significant.

There is evidence of mining wages being recycled back to smallholder households – some of which is used for agricultural investment. Given the difficulties of transporting agricultural produce to urban consumer markets, the emergence of buoyant demand for food in rural areas provides an important boost to farmers in areas surrounding mines. There is some anecdotal evidence that mining sites can stimulate the improvement in road infrastructure between the mine and the urban regional centre. This has important spill-over benefits for farming because it, at least partially, releases one of the binding constraints on agricultural development in DRC.

The gender context in the DRC is challenging. Notwithstanding Constitutional guarantees, women are almost uniquely marginalised economically, in terms of representation and subject to extreme levels of gender-based violence in the home at work and elsewhere. Despite this, women are responsible for 75% of agricultural work on the farm and work across all roles at mines – although they tend to be concentrated in the lower wage parts of the minerals supply chain. This considerable level of economic activity does not appear to translate to a higher status within Congolese society and women find it harder than men to access the land and finance that is necessary for empowerment..

Recommendations

Using the framework of institutional economists, we distinguish our recommendations between those which, whilst they would deliver huge benefits, are likely to be extremely challenging to implement and those which are more realistic within the context of a short-term aid programme.

Recommendations which would deliver huge benefits but would be extremely challenging

Rationale: The rationale for these recommendations is based upon seeking to bridge the very significant implementation gap between the generally sound policy environment in DRC and the on-the-ground reality. The lives of some 50 million smallholder households would be greatly enhanced if they had more secure and equitable access to land; access to agronomic support; less violent conflict and corruption; and, they could transport their surplus on functional roads. The lives of 2 million people engaged with ASM would be significantly improved if they experienced less corruption; safer working conditions; and greater support from SAEMAPE. 40 million women would benefit from the equality guaranteed in the Constitution being translated into tangible support in the economic and social sphere.

Recommendation 1: Government officials need to deliver better on their mandates and perform their state functions more effectively. Priorities should include renovating roads; providing security with the military and police; and provide appropriate technical support through SAEMAPE to miners and agricultural extension support to farmers.

Recommendation 2: Existing laws and regulations on environmental management; mining titles; gender equality; mine safety and dispute resolution should be implemented impartially by the state.

Recommendation 3: Government should implement its commitments to value agriculture by ensuring that the benefits of the considerable budget allocation benefit farmers on the ground.

Recommendation 4: Government should implement an independent review of previous land and mineral titles to overturn incorrect decisions made in the past.

Analysis: These recommendations are aspirational. They are framed around the normative building stability framework building blocks of 'fair power structures', 'inclusive economic development', 'conflict resolution mechanisms', 'effective and legitimate institutions' and 'a supportive regional / global environment'. If implemented, these recommendations would have a huge positive impact. However, using the framework of institutional economics, they are unlikely to be implemented because they are based on a wider fundamental and systemic change in the DRC social, economic, and political sphere beyond what a short-term aid project can address.

Recommendations which could feasibly be implemented in the context of a five year aid programme

Rationale: The rationale for these recommendations is that they do not challenge the fundamental systemic issues and, therefore, are much more likely to be implementable. The analysis in this report indicates that the lives of farmer and miners would be incrementally improved if financial literacy and financial services were improved for miners to help them manage their erratic incomes and transmit the liquidity of the mining sector more effectively into the rest of the local economy. Support to progressive cooperatives, women's groups and private sector suppliers represents an attempt to rebuild civil society institutions that can advance the interests of the vulnerable.

Recommendation 1: Building on existing ELAN, GIZ and DMFA interventions, DFID develop and market a commercial savings (and later credit) product to miners and farmers, with associated financial literacy training, to improve household cash-flow management and investment in agriculture.

Recommendation 2: DFID work with accountable and effective cooperatives and women's groups to support the empowerment of vulnerable farmers, miners and women.

Recommendation 3: Building on existing ELAN interventions, DFID extend working with the private sector to improve access to quality agricultural inputs and agronomic support to mining areas.

Analysis: There is much to commend these recommendations. Experience suggests that they are implementable and the outcomes are somewhat predictable, because they work within the existing governance framework. The drawback of these initiatives is the flip-side of their advantages, they are relatively incremental and will improve the lives of specific groups of people living in mining areas somewhat.

Recommendations which recognise the political economy of DRC and seek to change it by thinking and working politically

Rationale: The rationale for these recommendations is that they retain the ambition of those in the first group but are based on the political economy of DRC and so are more likely to work. This approach recognises that the poor development outcomes described in this report are in part the outcome of different interests in farming and mining whose incentive structures need to be properly understood and incentives to change identified to the benefit of all.

Recommendation 1: DFID to undertake a detailed political economy analysis to better understand the challenges between mining and farming detailed in this report; what groups have (and do not have) an interest in different types of reform to determine whether and how a feasible package of reform can be formulated.

Recommendation 2: Making full use of DFID's convening power with other donors and DRC officials DFID, working with local champions, will develop and implement a programme of progressive reform.

Analysis: This is a more challenging strategy, but there significant experience in the extractives sector in complex environments like Nigeria where development partners have been able to stimulate change to incentive structures that have delivered better development outcomes in challenging and diverse contexts.