THE BUSINESS ADVOCACY FUND

Improving the environment for mining

A cost benefit analysis

April 2017

This is the third in a series of reports intended to offer an assessment of the benefits delivered by selected projects supported by the Business Advocacy Fund compared to the costs incurred by BAF in supporting the project. As we note in our factsheet (available from businessadvocacy.org), cost benefit analysis (CBA) is a technique used to estimate the monetary value of the benefits and the costs to the community to assess whether a proposed initiative is worthwhile. The concept was originally developed by Jules Dupuit, a French engineer, and was further elaborated by a British economist, Alfred Marshall. Much of the practical development, however, came about because of the US Federal Navigation Act of 1936 which required that the US Corps of Engineers carry out projects to improve the waterway system when the total benefits of a project, irrespective of where they accrued, exceeded the costs. Inevitably, there are a large number of assumptions made in preparing a cost benefit analysis and this is particularly true in environments where there is a lack of detailed data. However, we think that it is appropriate to provide these assessments publicly, partly so that interested parties can consider whether the projects offered value for money, but also to provide an opportunity for others to challenge our assumptions and to offer better data on which to base our calculations.

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1. Background

Kenya is not a major mining country, though it is believed to have significant and largely unexplored potential. It currently produces soda ash, fluorspar, titanium, rare earth minerals, cement, gemstones, manganese, iron ore, gypsum, diatomite, chromites, silica sand, limestone and gold.

Vision 2030 identifies mining as a priority sector. The 2013 government created a stand-alone Ministry of Mining (MoM) in place of a Department of Mines and Geology in the previous Ministry of Environment and Mineral Resources. By 2014, mining contributed around one per cent of GDP though it was expected to grow around 10 per cent in 2014 compared to GDP which was expected to grow around four per cent, making it one of the few sectors delivering the Jubilee Coalition's manifesto commitment of a 10 per cent per annum growth rate.

Given investment, the sector could grow quickly, potentially contributing three per cent to GDP within four years and 10 per cent by 2030. Until the end of 2013, government policy on mining was largely tacit, with the Mining Act dating from 1940. A process of review was initiated in 1992, with United Nations Development Programme support, and then started again in 2002, with Commonwealth support. In part, issues were addressed by passing additional legislation. With support from BAF, the Kenya Chamber of Mines was able in 2009 to secure amendments to the Mining & Minerals Bill as it related to land and mining titles. MoM agreed that the existing legislation was too limited, failing to address emerging issues such as environmental concerns, the importance of communities and equitable sharing of benefits, devolution of decision making, in line with the new constitution, as well as licensing, accountability, efficiency and predictability. And all parties recognised that there was a need for a complete overhaul of the legislation rather than just further tinkering.

After some discussion and a number of internal drafts, the government published a draft Mining Bill in June 2013. KCM was invited to make presentations, both in writing and orally, which they did, and then nothing more happened – until the government published the Mining Bill 2014 on 17 March 2014.

KCM, amongst others, made considerable effort to seek amendments to the Bill and, in the end, secured around 80 per cent of what they sought by way of reform.

After careful consideration by both Houses of Parliament, and numerous amendments, the Mining Bill was finally approved and sent to the President for assent. It was gazetted on 20 May and came into effect a few days later. Perhaps because of the Government's ambition for the sector ultimately to contribute as much as 10 per cent of GDP (about $3 billion), the President made a formal presentation of the Mining Act to the CS on 13 June.[1]

2. The evidence

The Government of Kenya has high hopes for Kenya to contribute much more to the economy. The contribution of mining to GDP has been identified from tradingeconomics.com[2] who not only report on historical figures but makes predictions, based on trends and what they know about what is happening in the economy. We have used their figures, therefore, to provide the counterfactual, that is, the predicted growth in mining's contribution to the economy without the reforms brought about by the Mining Act.

The Government hopes and aims for mining to generate revenues of KES300bn by 2030[3], so we have assumed a constant percentage increase each year starting from 2017 so as to give KES300bn by 2030 (at current prices). We have then calculated the difference between the trend growth and the targeted growth rate.

There are then two further challenges in determining the total benefits: over what period should we count them and what is the level of attribution.

Often, a cost benefit analysis looks ahead five years or thereabouts.

We have only looked five years ahead, though arguably given the timescales to bring mines into production, we should look ahead at least 10 years, with lower growth in the early years and faster growth in later years. However, many of the benefits in jobs for example will come in the earlier years, whilst the mining companies invest more, and then the mines will become more profitable in later years. The contribution mainly comes through increased jobs and increased taxation, but we have assumed for the purposes of this calculation that the government's estimates of revenues will be the net benefit to the economy. We argue, therefore, that assuming straight line growth and looking five years ahead gives a reasonable estimate.

It is also necessary to ensure that benefits and costs are brought back to current values, so we have used net present values for future years, with a discount factor of 11, which represents the approximate borrowing rate. (A lower discount factor would increase the net benefits, and we are erring on the cautious side).

[1] A detailed case study is available in the Sage Handbook of International Corporate and Public Affairs, see https://www.bookdepository.com/SAGE-Handbook-International-Corporate-Public-Affairs/9781446276112

[2] See https://www.tradingeconomics.com/kenya/gdp-from-mining/forecast

[3] See, for example, http://www.nation.co.ke/business/New-mining-law-hopes-to...nual-revenue-by-2030/-/996/3301332/-/oco4ar/-/index.html

Figure 1: Summary of economic analysis

			2016	2017	2018	2019	2020
			-1	0	1	2	3
Estimate of mining contribution to GDP (1)		KES'bn	11.02	11.79	12.66	13.78	14.89
Estimate of revenue from mining (KES300bn by 2030) (2): annual increase of	27%	KES'bn	11.02	13.95	17.67	22.37	28.33
Benefits							
Benefit beyond trend		KES'bn	0.00	2.16	5.01	8.60	13.44
Benefit beyond trend	0.103	$'m	0	21	49	83	130
Costs							
Balance (ie net benefit)			0	21	49	83	130
Net present value			0	21	44	68	95
Total benefit		$'m					228
Attribution	High	100%					228

Often it is difficult to make an assessment of attribution. Several organisations lobbied the Government, but KCM lobbied more than anyone else (according to the Parliamentary reports) and many of their proposals were accepted. The Government would have adopted a new Mining Act even without KCM's lobbying efforts, but the outcome is considerably better than it might otherwise have been, and makes it more likely that mining companies will invest and deliver the Government's target. So we have assessed attribution as high. This gives a total net benefit $228m.

3. Costs

BAF supported KCM in 2007 to lobby on the Mining Resources Policy and in 2009 to lobby for the amendment of the Mining & Minerals Bill. But the main effort to support KCM came through the provision of a sustainability grant during phase II and additional support specifically towards the costs of seeking amendment to the Mining Bill. These grants totalled almost KES12m or about $133,000 at an average exchange rate of KES90:$1. However, this rather understates the total cost since KCM participated in training programmes and was given advice, guidance and support by the BAF team. The total budget for BAFII was $8m. The grant support given to KCM was about 2 per cent of the total given as grants for advocacy, so a fair proportion of the total cost would be $160,000.

4. Conclusion

In some ways it is still too early to tell whether the forecast benefits will ever be realised, though Acacia struck gold in February.[4] The Government of Kenya is extremely keen for mining's contribution to the economy to grow considerably, as evidenced by the creation of a Ministry of Mining. In the short term, benefits may be low, but they should start to grow exponentially fairly quickly. The ratio of benefits to costs, if the benefits are delivered, will be around 1,400.

[4] Daily Telegraph 27 Feb 2017