

**InBrief**

# Utilizing mining and mineral resources to foster the sustainable development of the Lao PDR

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In early 2010, ICMM undertook its fifth country case study on the economic and social contribution of mining. It applied the Mining: Partnerships for Development Toolkit in the Lao PDR with the active co-operation of the Lao PDR government and industry partners operating in the country. The study focused on the two existing large-scale mines in the country – MMG Sepon (owned by MMG, the subsidiary of China Minmetals Corporation, and ICMM's first Chinese-owned member company) and the PBM Phu Kham Copper-Gold Operation (owned by PanAust Ltd).

The findings were presented at a February 2011 workshop in Vientiane hosted by the Lao PDR government and ICMM. Around 150 participants debated the evidence on mining's economic and social contribution to the Lao PDR and identified areas where multi-stakeholder partnerships can help enhance the sector's contribution. The main findings of the study are summarized below – full details are included in the main report which is published on the ICMM website at [www.icmm.com](http://www.icmm.com).

The Lao PDR provides an ideal subject matter for a rigorous assessment of mining's socio-economic impacts. A resource rich but relatively undeveloped country, the Lao PDR is undergoing significant socio-economic change. Following liberalizing reforms of the 1990s, major international mining firms began to take an interest in the country. Two relatively new large-scale copper and gold mines now account for the bulk of mineral production. With revenue from these mines set to increase, and more than 570 mineral deposits identified across the country (including gold, copper, zinc and lead), the potential for further growth in mining is significant.

The country's economy is dependent on agriculture, while politically it is a one-party state. Formerly state-controlled, central control over the economy was relaxed as a result of the 'New Economic Mechanism' in 1986 and the country's constitution in 1991 created an investor-friendly climate. Although macro-economic conditions in the Lao PDR still reflect its Least Developed Country status, with trade and budget deficits and a relatively high level of external debts, these elements have improved in recent years.

In this context, the International Council on Mining and Metals (ICMM) undertook a fifth country case study to assess mining's economic and social contribution to the Lao PDR in order to identify future opportunities and challenges for the country. What the study found, in short, is that mining is making some striking contributions at both local and national levels in the country – albeit significant work will be needed to avoid potential future challenges.

At a local level, big leaps in average incomes, generally improved economic opportunities and greater income equality have made the mines a welcome addition to communities. Among the visible signs of development locally is that mobile phones, refrigerators, water pumps and motorbikes are much more common now compared with a decade ago. The mines have also so far experienced few of the local social tensions associated with resource extraction in some other countries.

At a national level, mining has come to account for 80% of the Foreign Direct Investment (FDI) stock since 2003; it is also a huge foreign exchange earner for the country, providing 45% of total exports. The sector generates 12% of government revenues. In terms of national income, the two mines examined in the study are expected to contribute around 10% to GDP on average over the next 14 years; their contribution to government revenues is set to steadily increase. Moreover, some 30,000 people are economically dependent upon the two mines. (Although this approximates to only 1% of the national workforce, this is a common pattern internationally: modern mining is capital rather than labour intensive).

At the same time, the study points to potential challenges going forward. Critically there needs to be sufficient government capacity to effectively spend mining revenues when they begin to ramp up, as well as to ensure that the wider economy can benefit from the growth in the mining sector. With the vast majority of the country's population living in rural areas, for example, it will be important to find ways to enhance further the positive 'spillovers' from mining and to use mining revenues to improve rural quality of life.

## About Mining: Partnerships for Development

ICMM's Mining: Partnerships for Development initiative focuses on enhancing mining's economic and social contribution. It supports the formal commitment made by ICMM member companies to actively support or help foster multi-stakeholder development-focused partnerships in countries where they are active.

Mining is economically critical for millions of the world's poorest people with some 50 countries being significantly dependent on mining. Yet mineral wealth does not always mean positive economic growth – the so-called "resource curse" theory.

In 2004, ICMM began the Resource Endowment initiative in collaboration with UNCTAD and the World Bank Group. It developed a substantial body of research on why some countries have avoided the "resource curse" and developed practical actions for companies, governments and civil society. It was overseen by an independent international advisory group including the Head of the UN Global Compact and a former Prime Minister of Senegal.

The Resource Endowment initiative showed that the "resource curse" is not inevitable. Mining investments can drive economic growth and reduce poverty nationally and locally. However, companies alone cannot unlock the development benefits from mining – governance is key and multi-stakeholder partnerships can help fill capacity gaps. The findings were based on the application of ICMM's *Resource Endowment Toolkit* (April 2006) in four countries – Chile, Ghana, Peru and Tanzania.

The toolkit has been now been revised, extended and re-published as the *Mining: Partnerships for Development Toolkit*. It responds to a clear need in different parts of the world for a more systematic and objective way to quantify and agree ways to enhance mining's economic and social contribution. It is currently being applied in a number of countries and can be used by mine managers and those interested in promoting economic and social development (host governments, development agencies and development-focused NGOs). For more information, visit [www.icmm.com/mpd](http://www.icmm.com/mpd) or email us at [info@icmm.com](mailto:info@icmm.com).

**“Large-scale mining in the Lao PDR has produced striking economic and social benefits at both local and national levels – maintaining and enhancing these benefits over time will require strong ongoing efforts by the government, companies and other stakeholders”**

### Positive impacts

Some of the most interesting data on local economic and social impacts in the study resulted from the innovative use of biannual household surveys by the companies operating the country’s two large-scale mines. Even on a global basis, relatively few mines monitor their local economic and social impacts so systematically. The surveys have found that in nine years, average incomes have increased seven-fold at Sepon and five-fold at PBM’s Phu Kham Copper-Gold Operation. Although the people in the mining areas still remain relatively poor, the increased wealth has led to greater food security, improved housing, and greater mobility – among other benefits.

Both companies have put in place a range of explicit initiatives to enhance positive impacts. These include the management of in-migration, supplier development programs, robust grievance mechanisms and community development funds. For example, since 2003 MMG Sepon has distributed close to US\$3 million on community development programs. PBM has spent some US\$950,000 since 2007 and expects to introduce two new funds worth US\$100,000 each for new projects in 2011. In terms of supplier development, PBM and MMG Sepon were both able to procure about 50% of their goods and services through national contractors in 2009, with about 10% of total procurement made locally. Creation of jobs has been significant too: at Sepon, there were some 3,900 people directly or indirectly employed (e.g. through contractors) in 2010. This excludes the many additional jobs created by mine employees spending their wages locally.

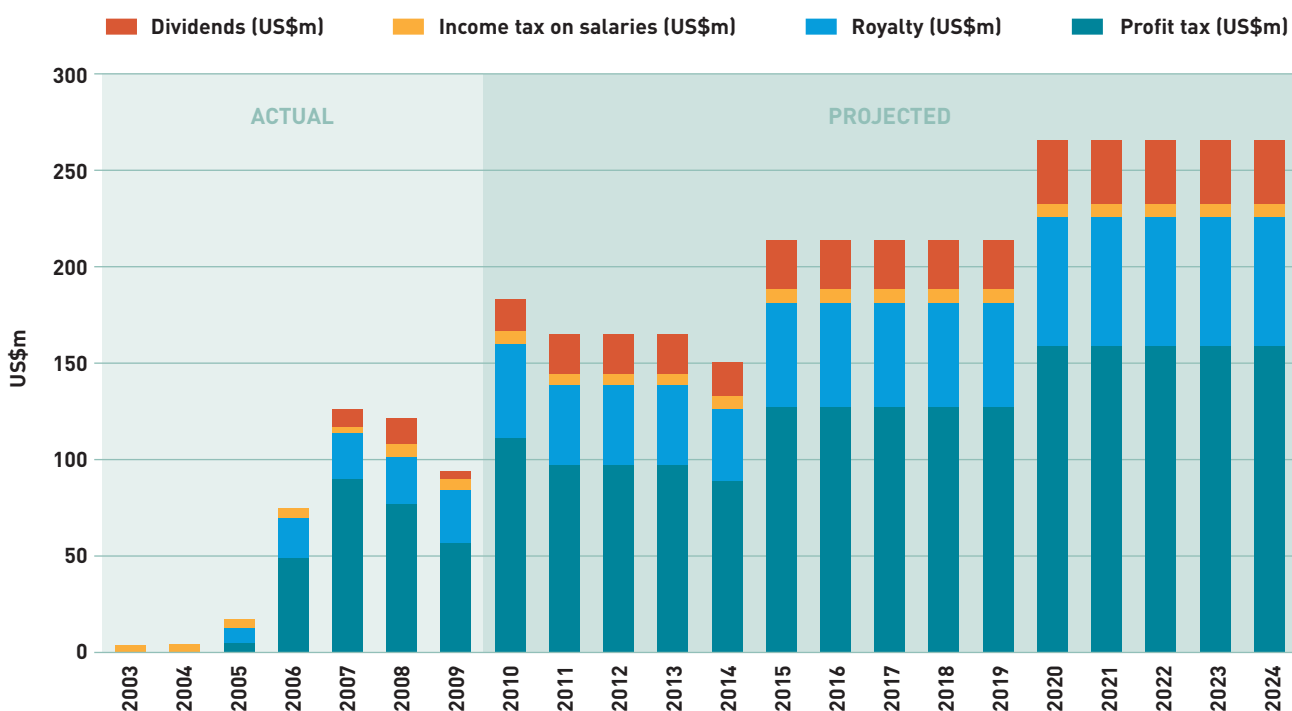
Interestingly, the study also argues that mining in the Lao PDR has potentially strengthened social cohesion for a number of

reasons. First, mining revenues have been distributed across the country favouring low income districts where ethnic minority groups are most highly represented. In the mining regions infrastructure and alternative development opportunities are scarce, so mining provides a rare chance for local communities to escape from poverty. Also the companies are both pursuing equal opportunities policies, which can also reduce inequalities between social groups and offer income earning opportunities for women. The fact that income inequality has declined rather than increased, as is often the case in areas affected by mining, underlines the positive impact.

Turning to national economic impacts, mining has clearly emerged as a key contributor to the economy over the past decade. The Lao PDR’s recent impressive economic growth rates – consistently around 6–8% per year – have coincided with the growth in mining investment (as well as other nonagricultural activities, chiefly major hydro power projects). Measured in terms of the UN’s Human Development Index during the period 2000–2009, when mining took on greater macroeconomic importance, poverty in the Lao PDR fell (albeit from previously high levels). Again large-scale mining has clearly played a key contributing role in this, including through the payment of taxes and royalties to the government (it provided around 12% of government revenues in 2009) and by opening up new economic opportunities more broadly.

The study also modeled the potential future economic contribution of the two mines in question drawing from an innovative approach set out in the Mining: Partnerships for Development Toolkit to estimate contributions from mines over their full life cycle – see Figure 1. The projections made by the study also suggest revenue payments to the government will

**Figure 1: Dividends, income tax, royalties, and profit tax, 2003–24**



Source: MMG Sepon and PBM.

The International Council on Mining and Metals (ICMM) was established in 2001 to improve sustainable development performance in the mining and metals industry. Today, it brings together 20 mining and metals companies as well as 31 national and regional mining associations and global commodity associations. Our vision is of member companies working together and with others to strengthen the contribution of mining, minerals and metals to sustainable development.

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increase over time. As noted previously, the two mines are expected to contribute on average around 10% to GDP over the next 14 years (mainly through the profits made by the firms but also through the wages and salaries of directly and indirectly employed workers).

In terms of macroeconomic governance, the Lao PDR government has so far shown restraint and responsible management of these revenues from the mines. It has pursued a cautious policy throughout the last few years, wisely opting to pay off external debts and build up foreign exchange surpluses.

Broad national governance trends also appear to have been largely positive in recent years judging by various World Bank and Asian Development Bank indicators. Clearly significant governance challenges remain, including at the regional and local levels. Even so, one small, but positive, step in local governance is worth highlighting here. Whereas governments of many mineral-rich countries provide weak support to local authorities in mining areas, the Lao PDR government has transferred a reported additional 200 government employees to the Sepon area to help respond to the extra demand for public services created by the mine's presence. Such extra capacity will provide important support for the area's socio-economic development going forward. The companies have also assisted in this respect, building the skills and understanding of district government workers through internships at the companies. For example, PBM has established a series of internships for the Department of Geology.

### Future challenges

For all these impressive developments, however, ensuring mining's full potential contribution is captured locally and nationally going forward will be neither automatic nor straightforward.

Locally, companies will need to adapt as mining activity expands. To give just one example from the study: as the mine's footprint grows at Sepon, land will be lost to operational requirements but it is unlikely that many new jobs will be created to offset loss of land. While compensation procedures are well established, it is jobs that people value most highly in these poor areas.

This raises the broader point highlighted by the study that the companies and government authorities will need to continue to make significant investments and to collaborate in areas such as job creation, small business development and agricultural improvement. This could be done by integrating mining agendas more closely into regional and district development planning, thereby finding ways to enhance the positive economic 'spillovers' from mining at the local level. Another clearly important area for the companies is continuing to ensure that environmental impacts – whether on water, land or air, and including any impacts which might affect local livelihoods – are effectively mitigated and managed.

At a national level, meanwhile, the critical challenge will be to ensure that governance and macroeconomic management remain strong. As revenues and capital inflows from PBM and MMG Sepon increase, the government will need to maintain economic stability, prevent the appreciation of the real exchange rate and generally use the revenues to drive broad-based growth. In order to sustain the interest of top tier investors in the country and ensure a continued licence to

operate, there is scope to further strengthen governance by, for example, recognizing the importance of property rights and by regulating across different mining companies irrespective of size and experience. Stronger regulatory enforcement needs to be undertaken together with reforms that remove administrative bottlenecks and excessive regulation, both of which can slow development and provide scope for rent-seeking behaviour.

The Lao PDR remains a relatively difficult country in which to do business: a World Bank 'Doing Business' report found that it ranks lower than neighbouring countries including Thailand and Vietnam. To give one illustration it is reported to currently require nine procedures, and to take an average of 50 days, to export from the Lao PDR. It will be important to improve the enabling environment for businesses, not least so that local firms can respond to opportunities to supply the mines and, over time, firms across the wider region.

Importantly, such reform can also help to support growth in the mining sector itself beyond MMG Sepon and PBM. If there is no further investment in exploration and the construction of mines, then production, exports, and tax revenues will all decline as mine closure approaches. New investment is required fairly soon since it typically takes at least 10 years from exploration to develop a mine.

Finally, while the quality of macroeconomic management to date has been improving, there is little transparency in how resources are managed and it is hard to get a sense of the control the government has over spending. These issues will become more important as mining revenues increase. Careful planning on the part of government, development partners and the mines is also needed to determine how mining can be integrated into national growth and poverty reduction strategies.

Again, these observations should not detract from the recent improvements in governance, including the government's notable support for local capacity building in the Sepon area. Overall, the picture regarding large-scale mining in the Lao PDR remains a positive one. By building on the strengths of its approach so far, the country has the opportunity not just to capture very substantial socio-economic benefits from mining over the long term, but to become an exemplar in this respect for the wider region. It is hoped that the findings and analysis generated by this study will make that outcome even more likely.

ICMM would like to thank all of the individuals and organizations that contributed to the Lao PDR country case study, full details of which are included in the main report. In particular, ICMM appreciates the co-operation and support of the Government of the Lao PDR, including staff at the Ministries of Energy and Mines and of Planning and Investment, as well as representatives from Savannakhet Province and Vientiane Capital. Staff from MMG Sepon, subsidiary of China Minmetals Corporation, and Phu Bia Mining Ltd (PBM), subsidiary of PanAust Ltd, provided a wealth of useful data and material.

The Lao PDR country case study was written by the National Economic Research Institute (NERI) and economic staff from the National University of Laos, Oxford Policy Management, and Earth Systems Lao (ESL).

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