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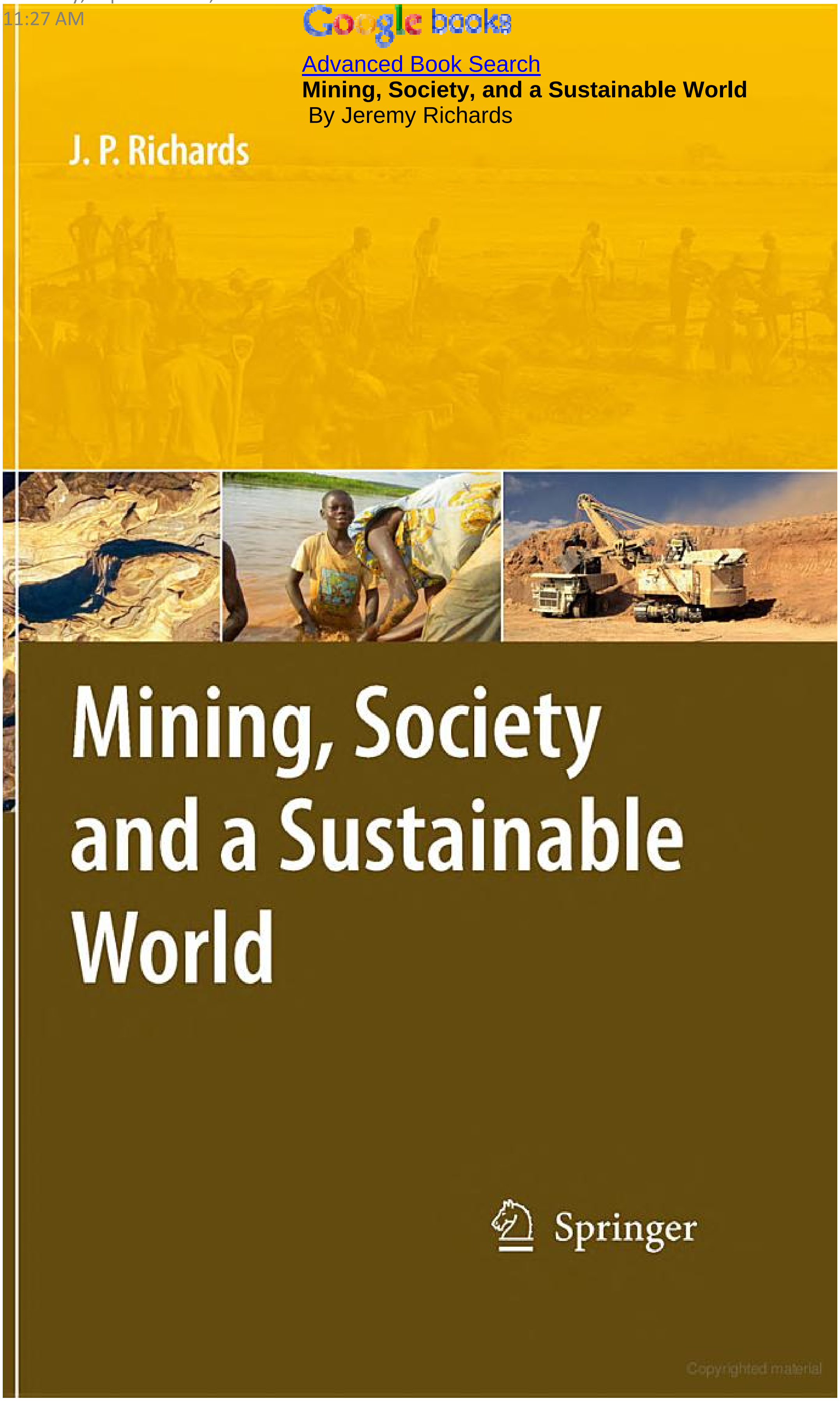
Mining, Society, and a Sustainable World

By Jeremy Richards



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1. Artisanal miners working in tailings pond of AngloGold Ashanti's Obuasi Mine, Obuasi, Ghana (photo credit: K. Slack, 2005).
2. Open pit copper mining operation, Zaldívar, Chile (photo credit: J.P. Richards, 1995).
3. Artisanal miners panning for diamonds Democratic Republic of the Congo (photo credit: M. Mazalto, 2008).
4. International Space Station photograph of the Bingham Canyon copper mine, Utah (Public domain image from NASA Earth Observatory: 2007).

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The Resource Curse: A Modern Myth?

Phillip Crowson

Is there any thing whereof it may be said, See, this is new? It hath been already of old time, which was before us.
(Ecclesiastes: Chapter 1, verse 10)

Abstract This chapter concentrates on the economic importance and impact of mineral development rather than its social and environmental effects. It first examines statistics on mineral dependency, demonstrating that many commonly used measures underestimate the contribution of minerals to economic activity. It then looks at the ways in which the development of mineral wealth can affect resource-rich countries for good or ill. Some historical examples of mineral development show that the issues raised today were no less relevant in times past. Changes in transport and communication technologies, and in the capital intensity of minerals extraction and processing over the past century and beyond have, however, reduced the prospects for strong multiplier effects of mining in many host countries. Far more than in the past, the main economic benefits to host countries are likely to be through their fiscal receipts and capture of mineral rents. The extent to which those benefits are realized consequently depends on the nature of their institutions and governance.

1 Introduction

In recent years a substantial body of literature has examined the impact of mineral development in resource rich countries. Rather than provide here a long list of references on this and later comments, readers are directed to Paul Stevens' useful survey of the extensive literature (Stevens 2007a). Commentators are divided between those who argue with conviction that mineral wealth is a blessing and those who

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3.2 Local Impacts

Apart from their contributions to national incomes and tax revenues, the main impacts of extractive industry projects are at the local level. Mining is usually an irreversible use of land, particularly where extraction is from open-pit rather than underground mines. Aside from the mine itself, there are waste dumps and tailings ponds. Large volumes of water are normally required for processing. Air and water quality can suffer from waste emissions unless these are properly controlled, and noise may also be a problem for any local community. Fragile ecosystems and existing social structures may be disrupted by extractive industry operations. These potential concerns can be overcome or mitigated by careful and sympathetic management, but that is not always forthcoming. Local communities may welcome the opportunities for employment and increased wealth offered by mineral development, regardless of any environmental costs. Nonetheless, tensions inevitably develop in many cases between the local communities who bear the social and environmental costs, and national governments who secure the economic and fiscal benefits. The investors often find themselves at the centre of these tensions.

3.3 Realisation Versus Potential

That the extractive industries potentially create wealth does not necessarily mean either that the potential will be realised, or that when it is it will be used wisely or well. Nor does it mean that the potential will be harnessed by the host country rather than leak overseas. Where investments are made by foreign companies, some leakages abroad of loan repayments, interest, dividends, and salaries of expatriate staff are inevitable. Those are not inconsistent with the host country maximizing its share of a project's economic rents as opposed to its value added.

3.4 The Construction Phase

Even during their construction phase, large projects raise issues for national economic management. The influx of capital and the associated consumer spending boost demands for goods and services that may not be locally available in sufficient quantities. In consequence, both imports of consumer goods and price inflation will tend to rise, especially where the capital expenditure is large relative to the national economy. Whereas unskilled workers may be recruited from the ranks of the under- or unemployed, skilled and semi-skilled labour will be attracted from existing industries, probably forcing up wage rates in the locality. Established industries will have to raise their own wage rates to compete or lose workers. This will reinforce any inflationary tendencies.

Typically, far more workers are required during the construction of large projects, and especially of major mining projects with their associated infrastructure, than during their subsequent operation. Thus, much of the surge in demand for labour