

1.1.1 Understanding the scale and contribution

Estimates of artisanal and small-scale miners vary from 20 to 30 million. The last official figures were 10 million (including up to 50 per cent women and 10 per cent children), estimated by the International Labour Organization (ILO) in 1999. Over the past 10 years numbers have increased dramatically (see Table 1 below) — driven by a host of factors including increasing gold prices (rocketing from \$290/ounce in October 2001 to \$1740/ounce in October 2011), new conflict areas where ASM activity can be a source for funds (particularly in the Democratic Republic of Congo), and increased demand for minerals such as tin, tantalum and tungsten (all used by the booming personal electronics industries).

Overall, artisanal and small-scale mining contributes 15–20 per cent of global minerals and metals. Within this, the sector produces approximately 80 per cent of all sapphires, 20 per cent of all gold and up to 20 per cent of diamonds (Estelle Levin Ltd 2012).

ASM operates in over 80 countries and is the dominant livelihood in some. In the Central African Republic two-thirds of people are estimated to rely directly or indirectly on artisanal diamond mining and conservative estimates suggest it injects as much as \$144.7 million into the economy (Eftimie *et al.* 2012). In Bolivia, mining makes up approximately 40 percent of current income from exports, 32 per cent of which comes from ASM, with 85 per cent of the mining sector's total employment in small mining cooperatives and mines (ILO 2005:6). In Mongolia, local economies near mining are worth an estimated \$505 million annually (Eftimie *et al.* 2012).

1.1.2 Understanding the diversity

ASM shows considerable diversity in scale (from rudimentary mining with picks and shovels to small-scale mining with simple machinery) and in employment (from 'diggers' to the 'miner' or 'gang leader'). 'Diggers' tend to be wage labourers who are excavating, washing, hauling, picking and sorting waste and transporting or providing security. Different terms are used in different cultural contexts, and each role tends to have its own local incentives and accountability structures. Diggers often include women, the elderly, and children. They are hired by the miner or gang leader — owner of the equipment, ghetto or pit — who bears all the costs and sets the terms of employment.

Most ASM is informal — operating in the absence of an applicable or appropriate legal framework. However, some miners operate within a legal framework, holding land titles and government permits, paying taxes and subject to social and environmental regulations (Gamarra Chilmaza 2005). This is termed 'legal' or 'formal' ASM. Others are illegal — operating in contravention of an applicable or appropriate legal framework.

Miners can be local people or migrants from within country or from neighbouring countries. ASM may be year-round ('permanent ASM') or 'seasonal' (for example, in conjunction with farming). Newly discovered resources can draw huge migrations into an area ('rush mining'). Increasing market demand and mineral prices (particularly for gold) also attract opportunistic and wealthy miners into the sector. But these should be distinguished from the majority of

marginalised and vulnerable miners, driven by poverty. ASM may also be a coping mechanism for shocks ('shock-pull mining') — such as loss of employment, conflicts or natural disaster. So although ASM groups may face the same problems — such as child labour, mercury use, illegal trade — their structural challenges and drivers can be very different. Policy responses need to understand mining communities' varying incentives and the particular challenges facing different groups within those communities. Figure 1 sets out the diversity in poverty driven ASM graphically.