

## C5 | PUBLIC HEALTH IN THE EXTRACTIVE SECTOR IN EAST AND SOUTHERN AFRICA

### Equity and development in East and Southern Africa

Countries in East and Southern Africa (ESA) have significant biodiversity and considerable genetic, mineral and other natural resources. Resources available in this region are enough to satisfy the basic social determinants of health. However, the Human Development Index (HDI) improved in only five of the sixteen ESA countries between 1997 and 2005, despite growing economies in most of these countries (EQUINET, 2012). For example, the Democratic Republic of Congo (DRC), a global leader in strategic mineral reserves, hydroelectric power and other natural resources has one of the lowest official per capita GDPs in the region (EQUINET Steering Committee, 2007).

ESA countries with higher levels of aggregate wealth have also had higher levels of inequality in wealth, suggesting that growth paths are not addressing the inequality and may be intensifying it (EQUINET, 2012). In an analysis of trends in the 16 ESA countries, inequality, measured by the Gini coefficient, appeared to be a critical factor limiting household access to resources, a phenomenon that was observed to have been intensifying since 1995 (EQUINET Steering Committee, 2007). An analysis of 70 developing and transition economies in the 1990s similarly found rising relative inequality to be a barrier to poverty reduction (Ravallion, 2005). This makes equity a key issue for health and social development in ESA countries, raising a policy demand for more inclusive economic growth and a wider distribution of its benefits (AU Commission, 2015).

Such discourses on economic pathways are not unique to the ESA region. The significant structural asymmetries, social deficits and inequality in the global economy have led to debates over development in many parts of the world. They have sought to identify alternative relationships between society, economy and the environment to address universal rights and strengthen human capacities, build a more harmonious relationship with nature, balance the liberating qualities of work and leisure, reconstruct the public sector and build a representative, participatory democracy (Boron, 2015). The '*buen vivir*' paradigm in several Latin American countries, for example, critiques the equation of progress with economic growth, when this is at the cost of intense exploitation of nature and significant social inequality. It focuses on the well-being and quality of life of the individual and community, and integrates the social rights of current and future generations as a collective or common

good and in a balance with nature (Gudynas, 2011). Health systems, and the choices, organization and implementation of public health services, play a role in achieving this common good.

### **Health in a region of increasing extractive activities'**

Most ESA countries are richly endowed with mineral reserves, providing an important source of export earnings and investment (Yager et al., 2012). Africa accounts for 70 per cent of the world's cobalt production, 57 per cent of diamond production and 19 per cent of gold and uranium production (ibid.). African minerals have been sought after for centuries by high-income countries (HICs) and more recently by emerging economies (AU and United Nations Economic Commission for Africa, 2007; Besada and Martin, 2013). The ownership of mines, referred to as extractive industries (EIs), is highly concentrated. In South Africa, for example, five companies were reported to account for 85 per cent of the total mine ownership (Munnik, 2010).

Countries rich in mineral resources also experience high levels of inequality and poverty – a situation often referred to as 'the resource curse' (Global Witness, 2012). While the extraction and export of unprocessed raw materials may lead to rapid growth, it is often unsustainable and not accompanied by higher value-added processing activities in African countries (ibid.). Trade in unprocessed natural resources thus accounted for nearly 80 per cent of African exports in 2000, compared to 31 per cent for all developing countries (Commission for Africa, 2005). EI activities lead to periods of economic boom, but with equally fast declines when commodity prices fall (African Union, 2009). They are commonly 'enclave' activities, using imported equipment, and technical, financial and managerial services and with refinement and processing taking place outside ESA countries. They, thus, create limited linkages with the national economy and limited job opportunities outside the EIs themselves (Catholic Relief Services, 2011). While they contribute through taxes, they also get significant tax concessions, including exemptions on value-added tax on imports or export sales, waiver of customs duty on imports and exports, lower corporate income tax rates, lower withholding tax rates and reductions on taxes on profits and royalties (Lambrechts et al., 2009).

EIs present a number of benefits. The benefits largely come from the jobs, income security and other benefits for those directly employed, from the EI's tax contribution and from the social services some EIs provide to employees and their families. They may also contribute to local capacity-building and investment in infrastructure (Shelton and Kabemba, 2012).

They also bring health risks. Besides a high rate of accidents and risk to workers from hazardous working conditions, environmental and other ills affect the health of workers and of the wider community. Poor infrastructures and living conditions, degradation of ecosystems, air and water pollution and poor social conditions in communities living around mines raise the risk of



**Image C5.1** Women demonstrate against effects on extractive industries (Louis Reynolds)

disease. Income differentials and insecure employment in some EI activities have been associated with increased alcohol consumption, commercial sex work and sexually transmitted infections (STIs).

The commencement of EI activity may displace local people, affecting their living and social conditions, their economic activities and health (Catholic Relief Services, 2011). Displacement has been reported, for example, of the San communities in Botswana to facilitate diamond mining; in Marange, Zimbabwe, to facilitate diamond-mining; in Tete province, Mozambique, of approximately 2,500 families, to facilitate coal mining (GEF, OSISA & UNDP, 2013; Human Rights Watch, 2013). Poorly planned involuntary resettlement of communities to enable EI activities has led to loss of livelihoods, loss of access to water, depletion of flora, arable land and pastures for livestock, and conflict between communities and the mining companies over unfulfilled commitments (Human Rights Watch 2013; Kabemba & Nhancale, 2012).

In addition, there are numerous health risks associated with specific EI processes (Table C5.1), quite apart from the risks of accident and injury at work and the ill-effects of noise pollution associated with mining.

Low-income communities living around the mines are particularly vulnerable to pollutants, given their poor living conditions. They are also least able to obtain reliable information on health risks or to register their concerns with decision-makers (Catholic Relief Services, 2011). A study of communities adjacent to 800 mines across 44 low- and middle-income countries, including

countries in ESA, found that lead and heavy metals possibly present within a 5-kilometre radius of mines depressed blood haemoglobin in women, with a 3–10 per cent increase in the incidence of anaemia as compared to control groups in areas not close to the mines. It was found that the affected women recovered more slowly from blood loss during pregnancy and delivery, and their children had stunted growth due to in-utero exposure to lead and heavy metals (Von der Goltz and Barnwal, 2014).

TABLE C5.1: Risks to health in mining activities

Mining of	Potential risks
Coal	Inhalation of CO <sub>2</sub> , nitrogen, sulphur oxides and hydrocarbons causes eye, nose and throat irritation. It can lead to black lung disease, silicosis and skin diseases and complicate TB. Radionuclides can lead to respiratory diseases, lung cancer and gastrointestinal problems. Communities living near mines are exposed to carbon, nitrogen gas, mercury, cadmium, copper, nickel, ammonia and fluoride, and to water, soil and air pollution from waste and fly ash spills. Abandoned mines can lead to sinkholes and heavy metal contamination.
Gold	Exposure to asbestos, silica dust and arsenic increases the risk of lung disease and lung, liver and oesophageal cancer. Mercury contamination of water, soil and food raises the risk of pulmonary, gastrointestinal, neurological and renal diseases, and reproductive risks in female workers. Health is also affected by mine contamination of water and stress to water tables. Unlined mine tailings and silicosis elevate the risk of TB.
Diamond	Illegal trading, money laundering, criminal activity and violence have been reported.
Uranium	Exposure to fine particles of uranium and to radon gas increases the risk of bronchial and lung cancer, leukaemia, stomach cancer, silicosis, chromosome mutations and birth defects. Radioactive and heavy metal contamination of groundwater, the use of waste rocks from mines to improve roads, and radioactive metal reuse by locals to make utensils and other goods raises the risk of birth defects, cancer and immune impairment. Water extraction can reduce the groundwater table, with risk of toxicity from pumping contaminated water back into rivers and lakes, and from arsenic in tailing ponds of abandoned mines.
Copper	Long-term exposure to copper dust causes respiratory irritation, headaches, dizziness, nausea and diarrhoea. Water with high levels of copper may cause nausea, vomiting, stomach cramps and diarrhoea.
Cobalt	There is risk of asthma, pneumonia, and metal lung disease due to chronic exposure to dust and fumes. Dermal exposure can result in contact dermatitis.
Oil and gas	Pollution and environmental destruction from oil spills, waste dumping and gas flares are damaging to soil fertility and agricultural productivity. Threats to food security may occur due to the shift away from agriculture.
Energy (hydro power)	There are health risks from asbestos dust, lubricants and insulation products, as well as electrical hazards and risks from equipment contaminated with polychlorinated biphenyls. Environmental changes increase risks of flooding, and reduction of water supply and of the fish population downstream.

Source: Adapted from Loewenson, R, Hinricher, J & Papamichail, A, 2016 pp 8–9

### International norms to promote fair benefit from EI activities

For ESA countries, the contradiction between the EIs' potential economic contribution and the reality of poor returns for local communities and economies is driving demand to implement policy choices that link the finite stock of natural resources to wider well-being and a more sustainable development. The *African Mining Vision* (African Union 2009, p. 3), for example, seeks to make the mining sector contribute to growth and development in a way that is "sustainable and well-governed", that "effectively garners and deploys resource rents and that is safe, healthy, gender and ethnically inclusive, environmentally friendly, socially responsible and appreciated by surrounding communities" (ibid.). Various initiatives taken by Africa states have begun to strengthen and take forward this policy intention. The African Commission on Human and People's Rights has established a Working Group on Africa to examine and propose responses to the impact of the extractive industries on human rights and the environment (Manirakiza, 2012). The Economic Community of West African States (ECOWAS) has set a directive on the harmonization of guiding principles and policies in the mining sector, while the Southern African Development Community (SADC) with the UN Economic Commission for Africa (UNECA) is advancing the harmonization of mining policies, standards, legislative and regulatory framework in Southern Africa (African Union 2009; Murombo 2013, pp. 31–49; United Nations Economic Commission for Africa 2004)

"These policy initiatives are consistent with international standards, codes and guidance documents. Various United Nations (UN) instruments have elaborated upon the governance of EIs and natural resources, and the duties in relation to human rights principles set out in UN declarations, including the right to health in the International Covenant on Economic, Social and Cultural Rights (ICESCR). The Organization for Economic Co-operation and Development (OECD), covering the states in which many of the multinational enterprises (MNEs) operating in the sector are headquartered, has set the „Guidelines for MNEs and due diligence guidance for responsible supply chains of minerals from conflict-affected and high-risk areas“. Financial institutions investing in EIs, such as the International Finance Corporation (IFC), have set performance standards for EI operations (Equator Principles, 2006; International Finance Commission, 2010). The International Council on Mining and Metals (ICMM), the organization of mining and metals companies, has established the 'ICMM 10 Principles' for sustainable development in the mining and metals industry (ICMM, 2017). Civil society, through the Natural Resource Charter „offers policy options and practical advice for governments, societies and the international community on how best to manage resource wealth“ (Natural Resource Governance Institute, n.d.).

The health-related content of the standards is detailed in Loewenson, et al. (2016). Collectively, the standards provide for

- consultation, impact assessment and protection of health in the negotiation of prospecting rights, including rights to culture, identity, employment, education and fair benefit-sharing
- health and social protection in the resettlement/relocation of affected communities
- occupational health and safety (OHS) for employed workers and subcontractors
- health benefits for workers and their families
- environmental, health and social protection for surrounding communities, and access to remedy where harm has occurred
- EI fiscal contributions for health promotion and healthcare
- fair local benefit from EI activities, and
- transparent, democratic and accountable governance of these issues by government, civil society and affected communities and industry on an equal footing.

Efforts are under way to move some of these international norms into practice. For example, the Extractive Industries Transparency Initiative (EITI) has been actively promoted and used in many ESA countries, among others, Mozambique, the DRC, Zambia and Madagascar, to advance EI transparency and accountability, with public reporting of their activities (Moffatt and Haralampieva, 2014, pp. 4–13; Von der Goltz and Barnwal, 2014). In South Africa, the 2009 King Committee Report on Corporate Governance has sought to bring local companies in line with global best practices (GEF, OSISA and UNDP, 2013). Kenya has similarly sought to adopt the UN Guiding Principles on Business and Human Rights in its emerging oil and gas sectors by initiating ‘The Nairobi Process: A Pact for Responsible Business’ (Samuel, 2015).

### **Variable application of international standards**

A comprehensive review of the national constitutions and their provisions for health and occupational health and of the environmental, labour, mining and company laws of the 16 ESA countries reveal that some elements of the international standards relating to health are found in different ESA countries, but no country covers them completely (Loewenson et al., 2016). The protection of health during negotiations on prospecting rights and EI agreements is largely pursued through environmental impact assessments (EIAs). Only a few countries, such as Kenya and Zambia, have explicitly included health or social impacts in EIAs, and none explicitly requires health sector approval of EIAs. There are weak *specific* provisions for health and social protection in relocating affected communities, with poor representation of directly affected communities in decision-making and grievance redressal. Occupational health and safety, and workers’ compensation, is universally provided for in all ESA countries for employed workers and contractors in the mining sector. Fewer

countries, however, include healthcare or medical surveillance for workers, their families and the larger community, as this is regarded as a matter for voluntary corporate social responsibility. Some countries, such as Angola, Kenya, Mozambique and the DRC, require that municipalities in mining areas benefit directly from a share of the taxes, and others such as South Africa and Zimbabwe have provisions for historically disadvantaged people to benefit from mining, potentially yielding resources for health services and infrastructures. Newer environment laws now cover healthy environments, including for the surrounding communities, but their ‘polluter pays’ remedy may leave public health harms unresolved. Further, while laws in most ESA countries include the obligation of ensuring environment and public safety after mine closure, none have provisions for the handing over of social service obligations post-closure with regard to occupational lung diseases and other chronic conditions (Loewenson et al., 2016).

Moreover, even where laws do exist, there may be gaps in their implementation. The World Health Organization has noted that health issues often trigger claims against EIs, but are not often the basis for corrective action, given difficulties in establishing the burden of proof in relation to health and environment and the lack of uniform interpretation of what health responsibilities imply, especially if there is no public sector implementation of health impact assessments (WHO, 2011). Shelton and Kabemba (2012, p. 197) note from studies in Angola, the DRC, Mozambique, South Africa, Zambia and Zimbabwe that “Legislative and policy shortcomings are...not the most important constraint...the most serious problem is the gap between what the law or policy says should happen and what does happen.”

In many countries, and particularly in those with new mining operations, the state has appeared to be less well prepared to manage the social issues in the rapidly growing EI sector, and laws were often introduced after social reaction or pressure. In Mozambique, for example, the legal instrument to guide resettlement was introduced in 2012, following community unrest due to poor resettlement conditions. In Malawi, the churches and local non-governmental organizations (NGOs) took court action to block uranium mining until appropriate laws were in place (Catholic Relief Services, 2011).

Multinational EIs are often more highly resourced technically and financially than the states or communities they operate in, generating asymmetrical interactions, especially when actively supported by the governments of their source countries (African Union, 2009; Shelton and Kabemba, 2012). The volatility in the minerals market weakens the negotiating power of states to demand tax reforms and measures for social benefit, especially at times of falling commodity prices (Lambrechts et al., 2009; Lungu, 2008). The same executive who oversees the regulation of EIs also encourages their economic contribution, and a desire to set investor-friendly outcomes impacts on the willingness to enforce fair-benefit conditions (African Union, 2009; Murombo,

2013). This ambivalence has led civil society to express doubts as to whether the interests of citizens is ever prioritized over that of EIs and to demand the inclusion of community representatives in the oversight of agreements (Shelton and Kabemba, 2012; Ujamaa Centre and Institute for Law and Environmental Governance, 2010).

States face capacity deficits that weaken the regulation of EIs, including in relation to qualified staff, infrastructure, information, technology and financial resources (Human Rights Watch, 2013; Kabemba, 2014). Further, even when they do act, the fines imposed are reported in many cases to be too low to have a deterrent effect (Human Rights Watch, 2013).

Fiscal contributions for public sector interventions and voluntary corporate social responsibility thus often become the primary means, *de facto*, for addressing public health in EIs. With respect to fiscal contributions, a range of practices exist. Zambia, Zimbabwe and Tanzania have increased metal royalties to improve public revenues; Zambia has implemented a windfall tax on ‘super-profits’ from EIs; and South Africa has proposed a capital gains tax of 50 per cent on sales of prospecting rights (De Backer, 2012; Kabemba, 2014; Lambrechts et al., 2009). The DRC in 2014 introduced a micro-levy on EIs of US\$ 0.10 on every barrel of oil sold by the state, with the funds to be used to fight chronic malnutrition (Innovative Finance Foundation, 2014). Some countries (South Africa and Zimbabwe) have set targets for a share of public revenues earned from operations of EIs for historically disadvantaged people, while others have obtained direct state ownership in EIs (such as Zimbabwe, the DRC, Zambia, Botswana, Namibia and Mozambique (Kabemba, 2014). Others, such as Botswana and Zimbabwe, have established a sovereign wealth fund, to build reserves from current resources for the well-being of future generations (Mutonhoru, 2014).

As is the case for all fiscal contributions, these revenue flows may not go to health, especially given the poor performance in the ESA regions in meeting the Abuja commitment of 15 per cent of government spending on health (EQUINET Steering Committee, 2012). Financial contributions are more likely to have potential benefit for communities affected by mining if there are fiscal and investment rules that align with equity and avoid elite capture, are accompanied by clear responsibilities and ethical standards, and are subject to regular audits and public disclosure, and strong and independent oversight and enforcement of fund rules (De Backer, 2012; Mutonhoru, 2014; Zimbabwe Environmental Law Association, 2011).

In practice, however, the significant tax incentives that many EIs get may reverse the public revenues gained from these initiatives, especially when there are ‘no change’ clauses in agreements with EIs that promise to not amend such incentives for substantial periods of time, regardless of law reforms (Lungu, 2008, pp. 403–15). In Zambia, for example, when the government introduced a windfall tax in response to protests over EI tax incentives, it remained bound





**Image C5.2** Protest against mining and tax dodging in South Africa (Louis Reynolds)

to earlier incentives through such a ‘stability period’ in the existing agreements, restricting its policy space to act (*ibid.*). Poorly negotiated contracts, tax concessions and various creative accounting mechanisms by MNEs are estimated to have cost countries significant revenues, with annual estimates as follows: South Africa, US£ 359–499 million in 2006; Tanzania, US\$ 29 million annually between 2002 and 2006; Malawi, US\$ 16.8 million; and the DRC, US\$ 0.36 million annually between 2001 and 2003 for a single-mine contract (African Union, 2009; Lambrechts et al., 2009).

As a second *de facto* approach, voluntary corporate social responsibility (CSR) takes various forms, such as through donating funds or technical resources to support health services and epidemic control; investing in non-mine social development programmes and providing grants for community health programmes, infrastructure and services (International Institute for Environment and Development, 2002; Lambrechts et al., 2009). The use of a share of profits for public good evidently has benefits. However such voluntary activity does not address the health determinants that arise from EI activities and may focus on visible and physical projects, reflecting corporate public relations concerns more than local community or national health system priorities (Lange and Kolstad, 2012). Left to decisions taken in corporate boardrooms, voluntary CSR has no commitment to involve affected communities or their representatives or state officials; nor does it set obligations that can be monitored, reviewed and publicly reported (Brereton, Owen and Kim, 2011).

### The demand for more direct social voice and accountability

There is a recognition that those affected by EI activities have a right to participate in decisions that affect their health and livelihoods. Most ESA countries provide constitutional rights to information, association, assembly and participation and provide for tripartite consultation on occupational health. Newer laws include duties of public information and consultation, while some countries (the DRC, Mozambique, Kenya, Tanzania) provide for informed participation of the affected local communities in EI governance and resettlement plans, and prohibit public officers from acquiring mining interests to protect against conflicts of interest. Tanzania's Extractive Industries (Transparency and Accountability) Act has, for example, provisions for transparency, the inclusion of civil society in an independent oversight committee with disclosure obligations on EIs, and measures for public reporting and citizen awareness on agreements (Loewenson et al., 2016).

States and civil society institutions have cooperated in legal reviews and consultations in the EI sector (Massawe, 2010; Twesigye, 2010). Workers, unions and the government in Zambia have, for example, successfully exercised joint pressure for first aid kits and ambulances to be provided at mines (Human Rights Watch, 2013; Shelton and Kabemba, 2012). Environmental law reforms have led to representation from affected communities and civil society in the oversight of EI activities, with accompanying actions to build local community capacities to rightfully claim and use information and to participate in processes (Ujamaa Centre & Institute for Law and Environmental Governance, 2010).

In some countries, however, the state is formally assumed to represent the interests of the communities, weakening their direct formal voice (Murombo, 2013). This may involve only employed workers with a more direct and formal means of engagement with EIs, often around wage demands (De Backer, 2012). There is some debate as to who makes up the 'local community', and to what extent those identified as leaders or representatives can be trusted to put forth community views and claims. Further, civil society itself is noted to be weak in relation to the significant power of EIs (Kabemba, 2014; Murombo, 2010).

A gap between what *should* exist and what *does* exist in relation to the social and health impacts and obligations of EIs has led to social protest (Bambas-Nolen et al., 2013). For example in Mozambique in 2011, resettled communities in Tete province voiced their concerns about poor resettlement conditions in a letter to the company and local government. When they did not get a response a month later, they took part in a demonstration that blocked the railway transporting the coal, leading to police action and arrests (Human Rights Watch, 2013). Civil society has also protested against procedural issues. For example the Zimbabwe Environmental Law Association (ZELA) walked out of the Kimberley Process Intersessional Meeting in 2011 due to perceived executive disrespect towards civil society (Zimbabwe Environmental Law Association, 2011).

A demand for a meaningful voice in the face of perceived deficits in state protection has led to a range of civil society actions: for example, the People's Mining Indaba was organized as a counter-event to the Stakeholders' Mining Indaba (Bambas-Nolen et al., 2013). In Kenya, perceiving inadequate action by local state authorities, a coalition of a civil society organizations (CSOs) brought cases to the Kenya National Commission on human rights in the early 2000s. This legal action was taken on behalf of communities in Malindi district affected by forcible evictions, health and safety and worker's rights violations, environmental degradation, and harassment by companies undertaking salt mining in the area (Ujamaa Centre & Institute for Law and Environmental Governance, 2010). In Malawi, local CSOs took the government to court for constitutional and environmental law violations in the negotiations over a uranium mine in Kayalekere. The CSOs alleged that an environmental impact study had not been conducted, that the agreement had been kept a secret, and that the project should not have progressed in the absence of national laws to regulate uranium mining (Lambrechts et al., 2009).

While the demand for information and participation in decision-making by those affected is their right, it is also a matter of health equity. When local communities do not participate in decision-making or in acting on or preventing the impacts of mining, they "bear a disproportionate share of the costs of mineral development without adequate compensation, and receive an inappropriately small share of the economic and social benefits" (International Institute for Environment and Development, 2002, p. 208), particularly when there is poor response to their grievances (Human Rights Watch, 2013).

### **Steps to advance health equity in relation to extractive industries**

The evident contradictions within the extractive sector in Africa has raised questions at all levels, from community to international, on what choices to make to generate wealth in a manner that does not sacrifice the health and well-being of future generations. The evidence of the health impacts of EI activities, of the gaps and variations in ESA country laws in relation to international standards, and the power asymmetries between global corporate actors and the states and communities they interact with suggests that ESA countries may benefit from regional processes to strengthen their ability to protect health. The findings validate the policy intention to harmonize these standards at the regional level, to avoid a downward competitive push on standards and to support those countries with newly emerging or growing EI sectors. While no single ESA country addresses all the required standards of health and social welfare in EIs in their laws, in combination the laws across ESA countries can provide guidance (Loewenson et al., 2016).

At the same time, the evidence suggests the need to close the gap between law and practice, through raising public awareness of rights and duties in the sector, and building evidence and capacities for the implementation of

these duties, such as through health impact assessments. Models of corporate social responsibility often promote public–private partnerships, partnering often weak local authorities with powerful EI companies. However, the evidence suggests a need for strengthened *public–public* partnerships, between affected communities, civil society and state institutions, and across different public sectors, to promote population health. The range of determinants of health in EIs point to the interconnections between the choices made on environment, employment, production, infrastructure, fiscal policy and trade, and their consequences for health.

What is the role then for health sectors in the ESA region? What expectation may communities have as they watch wagons carry their natural resources away, as they breathe air pollutants that leave them short of breath, watch huge infrastructures rise while they don't have access to safe water or sanitation, or are displaced from their cultural roots, homes and livelihoods?

Certainly, communities would expect the state to exercise the public health authority it has in law and to detect and prevent harm to health, no matter what institution is causing it. They would expect that their countries would collect the evidence and regulate commercial interests that are harmful to health, even if this means confronting their economic power. They would expect the public health sector to not only make commitments for what it will do, but also to move from the limited confines of disease programmes and medical care services to raise and advocate 'bottom lines' of what rights and obligations must be secured from others to protect public health. They would expect that in doing this, the health sector, as a people-driven sector, would build strong partnerships by involving the people.

## Notes

The evidence cited from literature on health in the extractive sector draws on Loewenson, Hinricher and Papamichail (2016). The chapter also draws on other evidence to offer analysis, discussion and conclusions that are the author's alone.

## References

- African Union 2009, *Africa mining vision*, AU, Addis Ababa.
- AU Commission 2015, *Agenda 2063: the Africa we want*, AU, Addis Ababa.
- AU & United Nations Economic Commission for Africa 2007, *Accelerating Africa's development through diversification*, Ethiopia.
- Bambas-Nolen, L, Birn, A E, Cairncross, E 2013, *Case study on extractive industries*, prepared for *The Lancet* –University of Oslo Commission on Global Governance for Health.
- Besada, H & Martin, P 2013, *Mining codes in Africa: emergence of a 'fourth' generation?* The North–South Institute, Ottawa.
- Brereton, D, Owen, J & Kim, J 2011, *Good practice note: community development agreements*, Centre for Social Responsibility in Mining, Brisbane.
- Boron, A 2015, *Buen vivir (sumak kawsay) and the dilemmas of the left governments in Latin America*, <http://climateandcapitalism.com/2015/08/31/buen-vivir-and-dilemmas-of-latin-american-left/>
- Catholic Relief Services 2011, *Extractives and equity: an introductory overview and case studies from Peru, Angola and Nigeria*, CRS, Baltimore, MD.

- Commission for Africa 2005, *Our common Interest: Report of the Commission for Africa*, London. [http://www.commissionforafrica.info/wp-content/uploads/2005-report/11-03-05\\_cr\\_report.pdf](http://www.commissionforafrica.info/wp-content/uploads/2005-report/11-03-05_cr_report.pdf)
- De Backer, S 2012, *Mining investment and financing in Africa: recent trends and key challenges*, Webber Wentzel, Johannesburg.
- Equator Principles 2006, *The equator principles*, viewed 1 May 2017 [http://equator-principles.com/resources/equator\\_principles.pdf](http://equator-principles.com/resources/equator_principles.pdf)
- EQUINET Steering Committee 2007, *Reclaiming the resources for health: a regional analysis of equity in health in East and Southern Africa*, EQUINET, Weaver Press, Zimbabwe; Fountain Publishers, Uganda; Jacana, South Africa.
- EQUINET 2012, *Regional equity watch 2012*, EQUINET, Harare.
- GEF (Global Environment Facility), OSISA (Open Society Initiative for Southern Africa) & UNDP (United Nations Development Programme) 2013, *Land, biodiversity and extractive industries in southern Africa: how effective are legal and institutional frameworks in protecting people and the environment?* GEF, Washington DC; OSISA, Johannesburg; UNDP, New York.
- Global Witness 2012, *Extractive sector transparency: why the EU needs a strong set of rules*, Global Witness, London.
- Gudynas, E 2011, *Transitions to post-extractivism: directions, options, areas of action*, Uruguay. [https://www.tni.org/files/download/beyonddevelopment\\_transitions.pdf](https://www.tni.org/files/download/beyonddevelopment_transitions.pdf)
- Human Rights Watch 2013, *What is a house without food? Mozambique's coal mining boom and resettlements*, HRW, New York.
- ICMM 2017, *ICMM 10 principles*, <https://www.icmm.com/en-gb/about-us/member-commitments/icmm-10-principles>
- Innovative Finance Foundation (IFF) (2014) 'Implementing an extractive industries micro-levy to fight chronic malnutrition: Executive summary', Innovative Finance Foundation: Geneva.
- International Finance Commission (IFC) 2010, *Performance standard 5 (rev. 1, 14 April 2010) – land acquisition and involuntary resettlement*, IFC, Washington DC.
- International Institute for Environment and Development 2002, *Breaking new ground: mining minerals, and sustainable development*, Earthscan Publications, London and Sterling, VA.
- Kabemba, C 2014, *Myths and mining: the reality of resource governance in Africa*, SARW and OSISA, Johannesburg.
- Kabemba, C & Nhancale, C 2012, *Coal versus communities: exposing poor practices by Vale and Rio Tinto in Mozambique*, SARW, Johannesburg.
- Lambrechts, K, Darimani, A, Kabemba, C & Olaleye, W 2009, *Breaking the curse: how transparent taxation and fair taxes can turn Africa's mineral wealth into development*, SARW, TWN Africa, Tax Justice Network for Africa, ActionAid and Christian Aid, Johannesburg.
- Lange, S & Kolstad, I 2012, 'Corporate community involvement and local institutions: two case studies from the mining industry in Tanzania', *Journal of African Business*, vol. 13, no. 2, pp. 134–44.
- Loewenson, R, Hinricher, J & Papamichail, A 2016, *Corporate responsibility for health in the extractive sector in East and Southern Africa*, EQUINET discussion paper 108, Training and Research Support Centre, Harare, [www.EQUINETafrica.org/sites/default/files/uploads/documents/EQ%20Diss108%20EIs%20and%20health2016.pdf](http://www.EQUINETafrica.org/sites/default/files/uploads/documents/EQ%20Diss108%20EIs%20and%20health2016.pdf)
- Lungu, J 2008, 'Copper mining agreements in Zambia: renegotiation or law reform?' *Review of African Political Economy*, vol. 35, no. 117, pp. 403–15.
- Manirakiza, P 2012, *Report of the working group on extractive industries, environment and human rights violations in Africa*, African Commission on Human and Peoples' Rights, Banjul.
- Massawe, E S 2010, 'Securing rights of communities against state and private sector actions in the mining sector: experiences from the Tanzania lake region mining sites', in Mtisi, S (ed), *Securing environmental, economic, social and cultural rights in the natural resources sector*, ZELA, Harare.
- Moffatt, P & Haralampieva, V 2014, 'Through the looking glass: the role of the Extractive Industries Transparency Initiative (EITI) in sustainable resource development', *Law in transition*, Spring 2014, pp. 4–13.

- Munnik, V 2010, *The social and environmental consequences of coal mining in South Africa*, Environmental Monitoring Group, Cape Town; Both ENDS, Amsterdam.
- Murombo T (2010) 'Conceptual framework for implementation and enforcement of environmental, economic, social and cultural rights in Southern Africa: Challenges and opportunities' in S Mtisi (ed) *Securing environmental, economic, social and cultural rights in the natural resources sector*. Zimbabwe Environmental Law Association (ZELA): Harare. 4-12.
- Murombo, T 2013, 'Regulating mining in South Africa and Zimbabwe: communities, the environment and perpetual exploitation', *Law, Environment and Development Journal*, vol. 9, no. 1, pp. 31-49.
- Mutonhori, N 2014, *A commentary on the Sovereign Wealth Fund Act of Zimbabwe*, ZELA, Harare.
- Natural Resource Governance Institute n.d., *Natural resource charter*, [https://resourcegovernance.org/sites/default/files/NRCJ1193\\_natural\\_resource\\_charter\\_19.6.14.pdf](https://resourcegovernance.org/sites/default/files/NRCJ1193_natural_resource_charter_19.6.14.pdf)
- Ravallion, M 2005, *A poverty-inequality trade off?* World Bank policy research paper 3579, World Bank, Washington.
- Samuel, M 2015, *Mitigating the extractive industries resource curse in East Africa: adopting the UN Guiding Principles on Business and Human Rights*, *AfricLaw*, <https://africlaw.com/2015/05/04/mitigating-the-extractive-industries-resource-curse-in-east-africa-adopting-the-un-guiding-principles-on-business-and-human-rights>
- Shelton, G and Kabemba, C (eds) 2012, *Win-win partnership? China, Southern Africa and the extractive industries*, SARW, Johannesburg.
- Twesigye, B 2010, Oil, 'Environment and the people: key issues and considerations in the governance of oil resources in Uganda', in Mtisi, S (ed), *Securing environmental, economic, social and cultural rights in the natural resources sector*, ZELA, Harare.
- Ujamaa Centre & Institute for Law and Environmental Governance (ILEG) 2010, 'Securing community assets in mining areas: case of salt mining in Kenya', in Mtisi, S (ed), *Securing environmental, economic, social and cultural rights in the natural resources sector*, ZELA, Harare.
- United Nations Economic Commission for Africa 2004, *Harmonization of mining policies, standards, legislative and regulatory frameworks in Southern Africa*, UNECA, Addis Ababa; SADC, Gaborone.
- Von der Goltz, J & Barnwal, P 2014, *Mines: the local wealth and health effects of mining in developing countries*, viewed 1 May 2017 <http://cdep.sipa.columbia.edu/sites/default/files/cdep/von%20oder%20Goltz%20and%20Barnwal%20Mines%202014%20with%20Appendices.pdf>
- WHO 2011, *Environmental law: an instrument to promote and protect health in extractive industries*, WHO, Geneva.
- Yager, T R, Bermúdez-Lugo, O, Mobbs, P M, Newman, H R, Taib, M, Wallace, G J & Wilburn, D R 2012, *2010 Minerals Yearbook – The Mineral Industries of Africa*, US Geological Survey, Reston, VA.
- Zimbabwe Environmental Law Association 2011, *Update and analysis of extractive sector and mining issues in Zimbabwe*, ZELA, Harare.