Towards a Sustainable Development Licence to Operate for the extractive sector

Consultation paper from the International Resource Panel Working Group on mineral resource governance for sustainable development, September 2017

Mineral resources are a foundation of social and economic development. The 17 Goals and 169 Targets in the 2030 Agenda for Sustainable Development recognise the importance of these resources, and depend on infrastructure and technologies that use them in vast quantities. Mineral resources present major governance challenges for many countries, in particular for developing countries. The governance architecture of the extractive sector currently suffers from a range of well-documented shortcomings, which undermine its ability to deliver social, economic, environmental and governance benefits.

*This consultation paper introduces—and seeks feedback concerning—the International Resource Panel's efforts to formulate a new multi-level governance framework for the extractive sector, entitled the **Sustainable Development Licence to Operate** or **SDLO**. The SDLO builds on the achievements of the social licence to operate, and is not intended to function as a licence in the regulatory sense. It will instead set out clear principles, policy options and best practice that are intended to function as a common reference point, enabling all public, private and other relevant actors in the extractive sector to make decisions compatible with the 2030 Agenda's vision of sustainable development.*

The global extractive sector—current status and future trends

As Figure 1 illustrates, extraction of mineral resources has increased markedly in recent decades, and over the last decade at a faster rate than economic growth.[1] There is currently an oversupply of mineral resources in world markets.[2] However this masks a significant long-term challenge—of how to meet the mineral resource needs of a growing global population that is expected to reach 8.5 billion by 2030.[2]

Though their demand will track economic cycles, the overall demand outlook for mineral resources remains positive as economies grow, technological innovation continues, and as developing economies catch up.[3] In recent years the global mining industry has downsized in response to a cycle of declining commodity prices,[4] which will delay responses to future increases in demand. Recent studies suggest that, over the coming 2–3 decades when availability of metals for recycling is expected to remain low,[5] the extractive sector will struggle to meet demand for several minerals for which substitutes are not readily available.[2,6,7]

There is a significant risk in this context of price volatility, which could hamper the efforts of resource-rich countries to manage their endowments in a manner that delivers enduring benefits for societies, economies and governance. Disasters such as the Benito Rodrigues tailings dam collapse in Brazil[8] also highlight the need to carefully balance mining, with stewardship of other valuable natural resources and the rights of local people and communities. Given these challenges there is a clear need for effective governance of the extractive sector across local, national, regional and global scales, to ensure that needs for minerals are met, without undermining other development outcomes.[1,2,9]

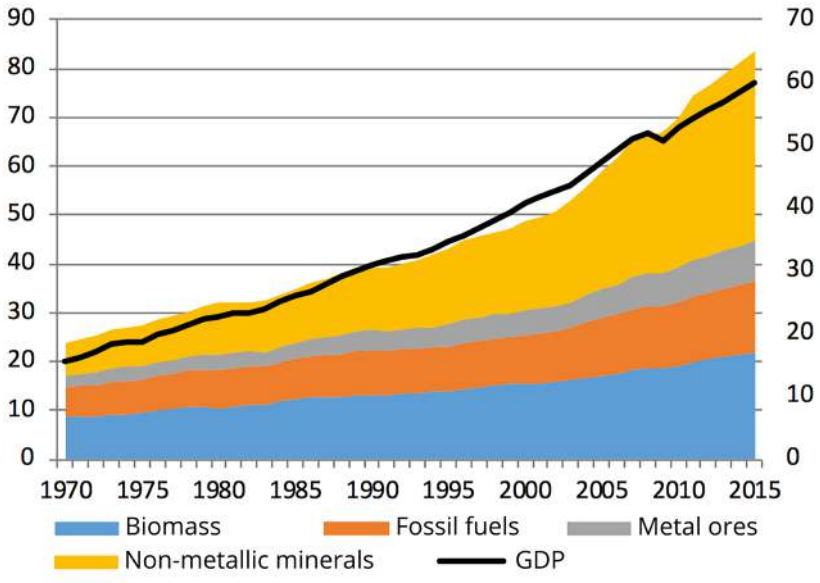


Figure 1: Global material extraction in billion tonnes (LEFT SCALE), global GDP (RIGHT SCALE) in trillion US dollars[1]

Governance challenges for the extractive sector at local, national, and global scales

Decision-making in the extractive sector is shaped by a complex array of governance frameworks and initiatives operating at multiple scales (see Figure 2).[1,10] This complexity is compounded by highly globalised minerals value chains, characterised by the involvement of diverse actors (see Figure 3). The need to coordinate and reform this governance landscape is driven by the adoption in 2015 of the 2030 Agenda for Sustainable Development.[11] Recent analyses—including the **2016 Atlas Mapping Mining to the SDGs**[12] published by the World Economic Forum and partners—highlight how a well managed extractive sector can promote delivery of the SDGs and Targets, both in relevant countries and globally. The notion of sustainable development—integrating the pillars of people, planet, prosperity, peace and partnership—has become the organising framework for global development cooperation and is key to framing discussions about the extractive sector's future. A growing range of frameworks and initiatives focus on delivering overlapping subsets of this global development vision, but do not currently operate in a sufficiently coordinated or integrated manner.[1,13]

Despite the extractive sectors' potential to act as a catalyst for development in mineral-rich countries, many challenges prevent this potential from being fully realised.[13,14] These include the volatility of commodity prices which have exposed developing countries to external shocks triggering macro-economic instability;[15] difficulties of managing large and volatile inflows of foreign capital;[16] technical complexities of large-scale projects with limited national capacities; enclave nature of mining with weak linkages to other economic sectors; and redefinitions of resource nationalism, absent consensus on what would constitute shared value from mining.[17] Technological advances in the extractive sector could have disruptive impacts on job creation and local procurement of goods and services, as well as transform production and consumption dynamics with profound global implications. These challenges are compounded by the uneven geographical distribution and finite nature of mineral deposits, which ensure that discussions about the future of the extractive sector are influenced by geo-political factors and tensions.

Another important issue for several countries is the discrepancy between formally recognised rights to mineral resources, and the expectations and dependencies of local communities. Policies in developing countries have in some cases facilitated large-scale acquisition of formal property rights by commercial sector actors (including transnational corporations which can prove difficult to regulate) to enable mining.[18] Negative outcomes of property acquisition by the extractive sector include expropriation without adequate compensation of rights held by individuals and communities; extinguishment of long-standing informal rights held by individuals and communities; dislocation of local communities from acquired areas; destruction of local livelihoods; and development that maximises marketable private benefits (e.g. mining) to the detriment of public benefits (e.g. clean water).[19]

Finally, the extractive sector's development benefits are impeded by incomplete accounting of sector impacts on wealth, which in comprehensive terms includes both infrastructure and financial capital, institutions and communities, and natural capital including biotic and abiotic components of the environment.[13,20–23] A range of impacts on institutions and communities and biotic natural capital assets (including ecosystems) are not currently valued in markets, and represent well-documented externalities of the extractive sector.[24] As all countries strive to achieve sustainable development, there is a need for a framework that enables, at each level of globalised value chains, all actors to assess the compatibility of their decision-making with the SDGs and Targets, including efforts to address the abovementioned challenges.

Figure 2: (BELOW) Key governance frameworks and initiatives in the extractive sector.

Africa Mining Vision • Aluminium Stewardship Initiative • Inclusive Framework on Base Erosion and Profit Shifting • Better Coal Code • Better Gold Initiative • Communities and Small Scale Mining Initiative • Conflict Free Gold Standards • Conflict Free Sourcing Initiative • Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains • Commonwealth Mining Network • Certifitied Trading Chains • Diamond Development Initiative and Standard • Devonshire Initiative • EICC Environmental Sustainability Working Group • Extractive Industries Transparency Initiative • Equitable Origin • Equator Principles • Alliance for Responsible Mining and Fairmined Standard • Fairtrade Gold and Previous Metals • The Financial Action Taskforce • Fraser Institute Annual Survey of Mining and Exploration Companies • Framework for Responsible Mining • Green Mining Initiative • The Green Lead Initiative • Global Reporting Initiative • Health in the Extractive Industries • Great Lakes Region Initiative against the Illegal Exploitation of Natural Resources • International Cyanide Management Code for Gold • International Council on Mining and Metals • IFC Performance Standards on Environmental and Social Sustainability • International Financial Reporting Standards for the extractive sector • Mining Policy Framework of the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development • Indigenous Rights in the Arctic • Initiative for Responsible Mining Assurance • ITRI Tin Supply Chain Initiative • Kimberly Process Certification Scheme • London Bullion Market Association Responsible Gold Guidance • Mining Investment and Governance Review • NamiRo • The Natural Resource Charter • Natural Resources Risk Index • OECD Due Diligence Guidance for Responsible Supply Chain Management of Minerals for Conflict Affected and High Risk Areas • Global Forum on Transparency and Exchange of Information for Tax Purposes • Oil for Development • Public-Private Alliance for Responsible Minerals Trade • Publish What You Pay • Australian Steel Stewardship Forum and Steel Stewardship Council • Responsible Jewelry Council • Responsible Mining of Cobalt • Responsible Mineral Development Initiative • Responsible Mining Foundation Responsible Mining Index • Raw Materials Initiative • Responsible Raw Materials Initiative • Solutions for Hope • The Stolen Asset Recovery (StAR) Initiative • Strategic Dialogue on Sustainable Raw Materials for Europe • The Access Initiative • Towards Sustainable Mining • UNDP Sustainable and Equitable Management of the Extractive Sector for Human Development • UN Global Compact

A new paradigm—the Sustainable Development Licence to Operate

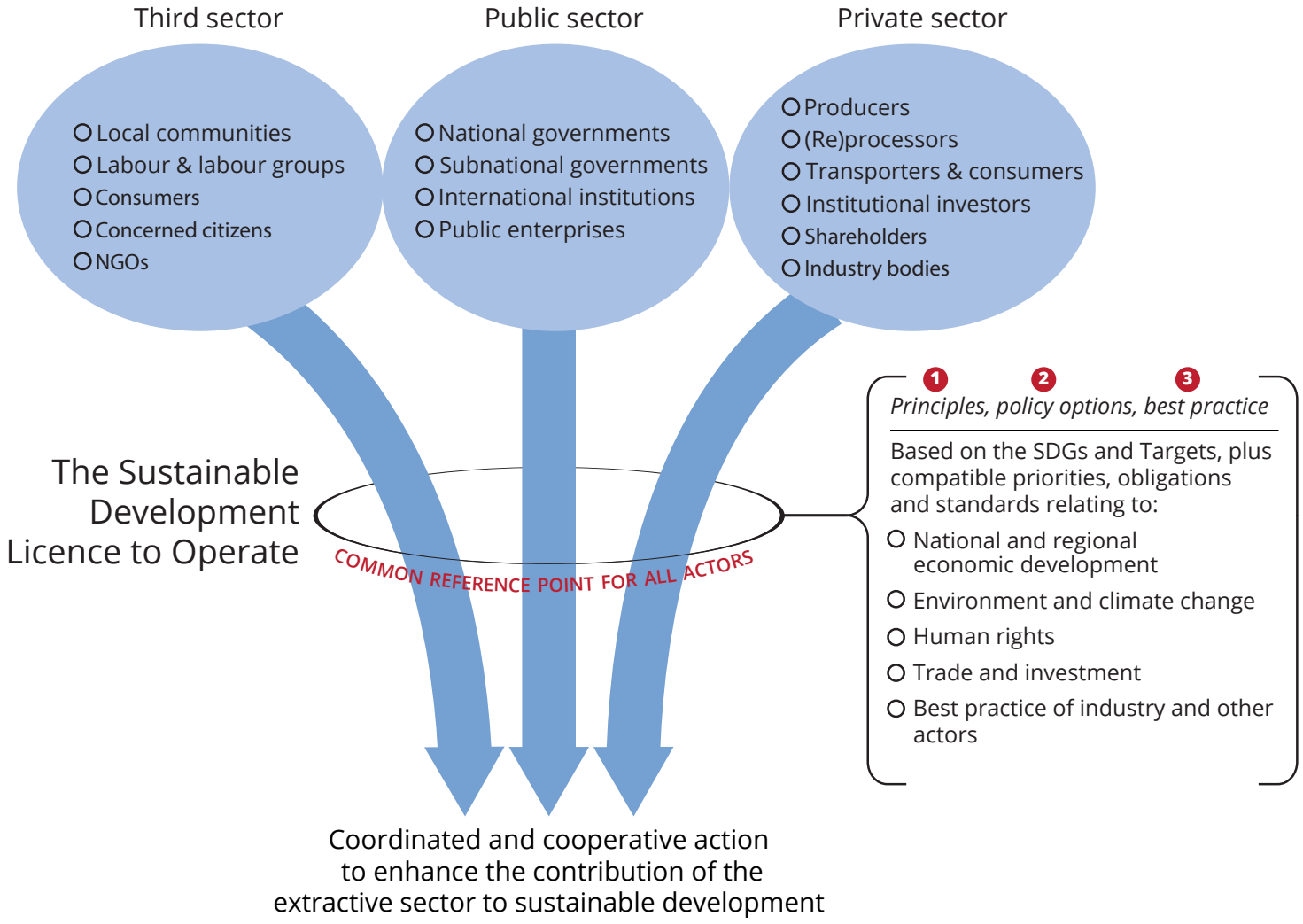
Responding to challenges outlined above, the International Resource Panel is coordinating a global process to *(1)* systematically analyse current evidence concerning governance challenges in the extractive sector, and *(2)* identify governance options for the sector that are compatible with delivery of the 17 SDGs and 169 associated Targets. A key focus of these efforts will be build on previous efforts such as the 2016 Mining SDG Atlas[12], to transparently and consultatively formulate a new multi-level governance framework for the extractive sector—the Sustainable Development Licence to Operate or SDLO.

Since the late 1990s, mining companies have increasingly sought to secure the acceptance of mining activities by local communities and stakeholders, in order to build public trust in their activities and prevent social conflict.[25] Such attempts to earn a Social Licence to Operate (SLO) are premised on engagement between mining companies, governments and civil society to ensure that mineral resource extraction contributes to national and local development, and that damaging impacts on host communities and the environment are mitigated or otherwise managed.[13]

The SDLO is similar to the SLO in that it is designed to improve the societal net benefits of mining, and is not designed to function as a licence in the compulsory or regulatory sense. However the SDLO extends the SLO concept in several important ways, so that it can function as a normative reference point oriented towards the achievement of sustainable development (see Figure 3):

First, the SDLO addresses broader subject matter, covering all environmental, social and economic concerns that fall within the ambit of the SDGs and Targets. Second, the SDLO is designed to be relevant to all actors in the extractive sector across the public, private and third sectors—articulating a set of internally consistent principles and policy options that are compatible with the SDGs and Targets, plus other priorities, obligations and standards compatible with the 2030 Agenda. Finally, the SDLO is designed to set out not only minimum standards of behaviour, but also evidence-based best practice and opportunities for enhancing the extractive sector's contribution to sustainable development.

Figure 3: (BELOW) Key elements of the Sustainable Development Licence to Operate.



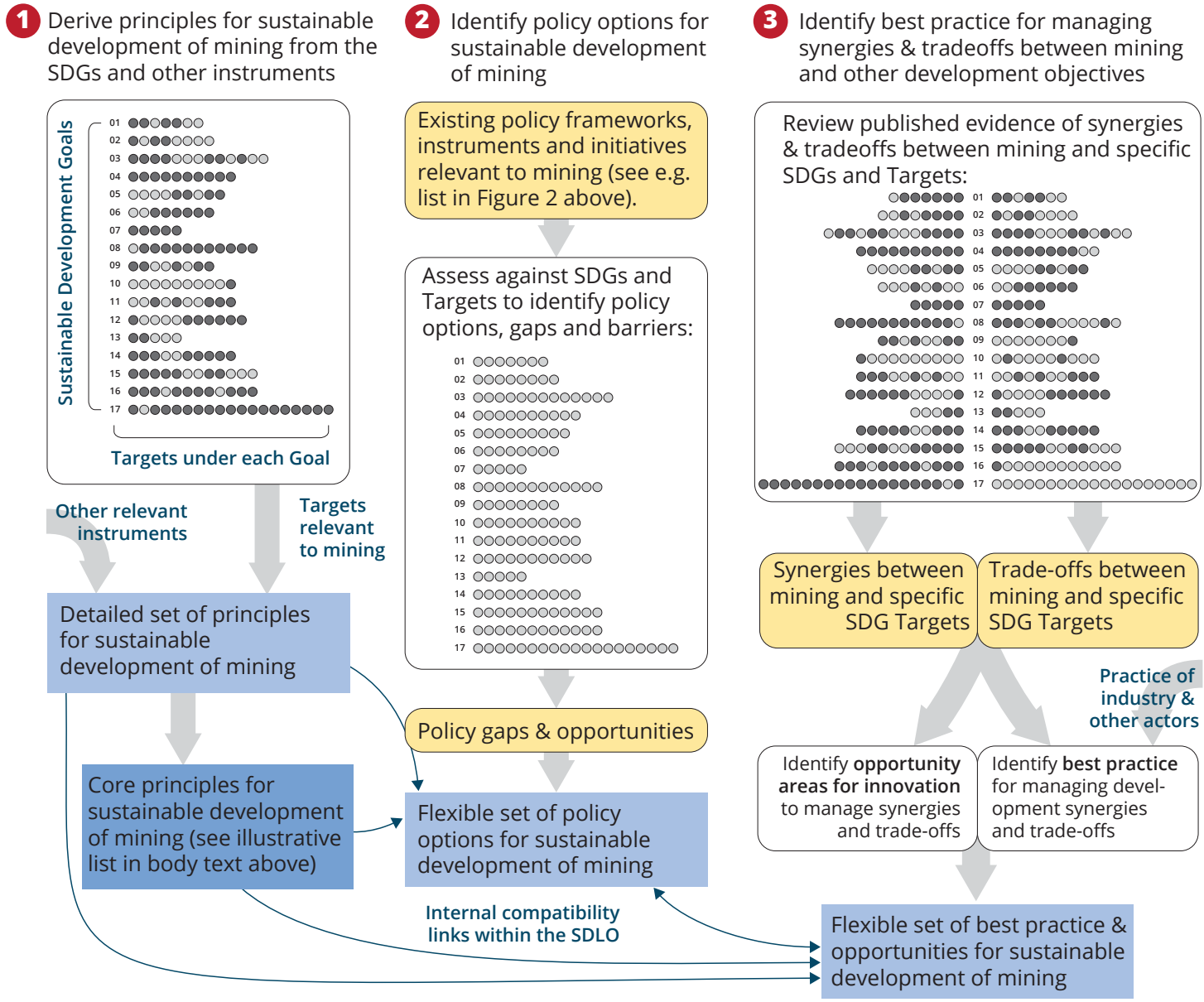
Developing and implementing the SDLO—towards principles, policy options, and best practice

Formulation and design of the SDLO is necessarily an inclusive process—requiring input from diverse stakeholders across the public, private and third sectors, and from multiple and representative developed and developing countries. Subject to feedback from stakeholders, the IRP is planning to support three overlapping analytical processes to clarify and develop the normative content of the SDLO (see Figure 4). All of these involve detailed analysis of all 17 Goals and 169 Targets recognised in the 2030 Agenda for Sustainable Development, building on important previous works such as the 2016 Mining SDG Atlas,[12] and International Council for Science Guide to SDG Interactions.[26]

First, identification of principles for sustainable development of mining entails analysis of the content of the SDGs in order to identify all Targets that stipulate changes in the extractive sector. For example, SDG Target 5.1 calls for an "end to discrimination against all women and girls everywhere" including in decision-making about mining. These Targets can then be distilled into a manageable, practical list of detailed and core principles. Second, identifying practical and flexible policy options (and opportunities) for sustainable development of mining will involve a global multi-level review of existing policy frameworks, instruments and initiatives, and assessment of these against the SDGs and Targets in order to identify options, gaps and opportunities. Finally, identifying best practice for the extractive sector will need to be informed by an understanding of how mining activities have synergies and trade-offs with action to achieve all SDGs and Targets, coupled with analysis of what existing practices are most compatible with such efforts, and opportunity areas for innovation.

It will be important to ensure throughout these processes that the SDLO incorporates and complements other relevant frameworks and initiatives.

Figure 4: (BELOW) Proposed process to develop the normative content of the SDLO.



Key questions for stakeholders

To support the International Resource Panel's efforts as explained above, the Panel would be very grateful for your responses—in brief or in detail—to the following questions:

1. What key features of extractive sector governance need to change in order to deliver the 2030 Agenda for Sustainable Development?
2. How could the International Resource Panel's proposed work to develop a Sustainable Development Licence to Operate add value to your activities? How could the SDLO become operational as part of your work?
3. What changes do you think would improve the IRP's suggested process (illustrated in Figure 4 above) to develop the Sustainable Development Licence to Operate?
4. What ***core principles*** do you think should guide efforts in the extractive sector to achieve sustainable development?
5. What ***policy options*** do you think should be included in the Sustainable Development Licence to Operate?
6. What examples of ***best practice*** do you think should be included in the Sustainable Development Licence to Operate?
7. Which organisations and individuals should the IRP consult for feedback concerning the Sustainable Development Licence to Operate?

How to submit feedback

Please submit your answers to the above guiding questions, or any other written feedback on this document, to **Christina Bodouroglou** (christina.bodouroglou@unenvironment.org) who is the focal point for the coordination of this work within the Secretariat of the International Resource Panel at UN Environment. The core members of the Panel Working Group on mineral resource governance also welcome enquiries. They can be contacted by email as follows:

- **Antonio Pedro**, Director, Sub-regional Office of Central Africa, United Nations Economic Commission for Africa (pedro.uneca@un.org).
- **Elias Ayuk**, Director, The United Nations University Institute for Natural Resources in Africa (ayuk@unu.edu).
- **Bruno Oberle**, Professor of Green Economy, École Polytechnique Fédérale de Lausanne (bruno.oberle@epfl.ch).
- **Paul Ekins**, Professor of Resources and Environmental Policy and Director, University College London Institute for Sustainable Resources, (p.ekins@ucl.ac.uk).
- **Ben Milligan**, Senior Research Associate, Centre for Law and Environment, University College London (b.milligan@ucl.ac.uk).
- **Julius Gatune**, Senior Research and Policy Advisor, African Center for Economic Transformation (jgatune@acetforafrica.org).

Notes and references

1. Paul Ekins, Nick Hughes, et al. Resource Efficiency: Potential and Implications. A report of the International Resource Panel. UNEP, 2017, www.resourcepanel.org/reports/.

2. Saleem H. Ali et al. Mineral supply for sustainable development requires resource governance. Nature, March 2017, doi:10.1038/nature21359.

3. See e.g.: Daniele La Porta Arrobas et al. The Growing Role of Minerals and Metals for a Low Carbon Future. World Bank Group, June 2017, documents.worldbank.org.

4. See e.g.: S&P Global. Worldwide Mining Exploration Trends. March 2017, marketintelligence.spglobal.com.

5. Markus Reuter et al. Metal Recycling: Opportunities, Limits, Infrastructure. A Report of the International Resource Panel. UNEP, 2013. www.resourcepanel.org/reports/.

6. A Elshkaki et al. Copper demand, supply, and associated energy use to 2050. Global Environmental Change, 2016, doi: 10.1016/j.gloenvcha.2016.06.006.

7. TE Graedel et al. Criticality of metals and metalloids. Proceedings of the National Academy of Sciences, USA, April 2015, doi: 10.1073/pnas.1500415112.

8. Vanessa Hatje et al. The Environmental impacts of one of the largest tailing dam failures worldwide. Nature Scientific Reports, September 2017, doi: DOI:10.1038/s41598-017-11143-x.

9. World Economic Forum. Mining and Metals in a Sustainable World 2050. September 2015, www.weforum.org.

10. Kari Lipschutz, Mark Henstridge. Mapping International Efforts to Strengthen Extractives Governance. Oxford Policy Management, 2013, www.opml.co.uk.

11. See Transforming our world: the 2030 Agenda for Sustain able Development, UN General Assembly (UNGA) Resolution A/ RES/70/1, 25 September 2015, www.un.org/en/documents/.

12. Columbia Center on Sustainable Investment, UNDP, UN Sustainable Development Solutions Network, World Economic Forum. Mapping Mining to the Sustainable Development Goals: An Atlas. July 2016, unsdsn.org.

13. Antonio Pedro et al. Towards a sustainable development licence to operate for the extractive sector. Mineral Economics, July 2017, 10.1007/s13563-017-0108-9.

14. See: African Union, UNECA. Minerals and Africa's Development: The International Study Group Report on Africa's Mineral Regimes. 2011, www.africaminingvision.org.

15. See: Eleodoro Mayorga Alba et al. Extractive Industries Value Chain: A Comprehensive Integrated Approach to Developing Extractive Industries. World Bank, March 2009, siteresources.worldbank.org.

16. See: Report of the High Level Panel on illicit Financial Flows from Africa. AU and UNECA Conference of Ministers of Finance, Planning and Economic Development, www.uneca.org.

17. See: Africa Progress Panel. Africa Progress Report 2013: Equity in Extractives: Stewarding Africa's natural resources for all. www.africaprogresspanel.org.

18. Laura German et al. Contemporary processes of large-scale land acquisition by investors: Case studies from sub-Saharan Africa. CIFOR Occasional Paper 68, 2011, www.cifor.org.

19. See e.g.: Abdul-Wadood Moomen. Strategies for managing large-scale mining sector land use conflicts in the global south. Resource Policy, March 2017, doi: 10.1016/j.resourpol.2016.11.010.

20. Millennium Ecosystem Assessment, 2005. Ecosystems and Human Well-being: Synthesis. Island Press. www.millenniumassessment.org.

21. See P Kumar (ed), The Economics of Ecosystems and Biodiversity: Ecological and Economic Foundations, Routledge Press, 2011, www.teebweb.org.

22. P Kareiva et al (eds), Natural Capital: Theory and Practice of Mapping Ecosystem Services, 2011, doi: 10.1093/acprof:oso/9780199588992.001.0001.

23. World Bank. The changing wealth of nations: measuring sustainable development for the new Millennium. openknowledge.worldbank.org.

24. For an early example of efforts to internalise these externalities in commerical decision-making, see: Natural Capital Protocol: Case Study for Tata Group, 25 September 2017, www.naturalcapitalcoalition.org.

25. Jason Prno. An analysis of factors leading to the establishment of a social licence to operate in the mining industry. Resources Policy, December 2013, doi: 10.1016/j.resourpol.2013.09.010.

26. DJ Griggs et al (eds). A Guide to SDG Interactions: from Science to Implementation. International Council for Science, 2017, doi: 10.24948/2017.01.

Acknowledgments and contact information

Authors: Ben Milligan, Julius Gatune Kariuki, Christina Bodouroglou, Elias Ayuk, Antonio Pedro, Paul Ekins, Bruno Oberle. We thank Laura Platchkov and Jean Acquatella who reviewed and commented on this paper. Design and layout by Ben Milligan. Last edited: 26 September 2017.