



University of Dundee

Platforms for Strategic Dialogues on Mining and Minerals

Humphreys, David; Bastida, Ana; Hermann, Andreas

Published in:
European Policy Briefs - STRADE Project

Publication date:
2017

Document Version
Publisher's PDF, also known as Version of record

[Link to publication in Discovery Research Portal](#)

Citation for published version (APA):
Humphreys, D., Bastida, A., & Hermann, A. (2017). Platforms for Strategic Dialogues on Mining and Minerals: A possible way forward. European Policy Briefs - STRADE Project 2017 7 (pp. 1-12).

General rights

Copyright and moral rights for the publications made accessible in Discovery Research Portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from Discovery Research Portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain.
- You may freely distribute the URL identifying the publication in the public portal.

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

European Policy Brief

STRADE

Strategic Dialogue on Sustainable Raw Materials for Europe (STRADE)
No. 07 / 2017

Platforms for strategic dialogue: a possible way forward

July 2017

David Humphreys, Ana Elizabeth Bastida (CEPMLP, University of Dundee) and Andreas Hermann (Oeko-Institut eV)



Funded by the
Horizon 2020 Programme
of the European Union

STRADE is an EU-funded research project focusing on the development of dialogue-based, innovative policy recommendations for a European strategy on future raw materials supplies. In a series of policy briefs and reports, the project will offer critical analysis and recommendations on EU raw materials policy. This policy brief examines the arguments for the need for a strategic dialogue on raw materials that builds upon initiatives that currently exist and considers what more might be done.

1. Introduction and aim of policy brief

Mineral-rich countries have unique opportunities to transform their mineral wealth into sustainable economic development. However, to realise these opportunities, such countries face the challenge not only of establishing conditions to attract investment but also of regulating an activity that, if badly managed, can severely damage the natural environment, disrupt communities and distort the economy. This represents a particularly challenging task for countries with less mature institutions and gaps in their industry governance.

Such 'governance gaps' commonly arise as the result of a mismatch between global economic forces and the capacity of local actors (national and sub-national) to regulate, exercise oversight and transform economic activities into developmental outcomes (Ruggie, 2008).

The international community has long identified quality of governance as a key factor in unlocking the development potential of extractives industries. It has sought to devise a range of standards aimed at providing frameworks for governments, companies, financial institutions and other actors to benchmark their performance.¹ Such standards aim at complementing regulation by filling in the identified governance gaps. A clear need exists to move towards effective implementation of these standards (Bastida, forthcoming). Mineral-rich countries have often struggled to extract the full value from their mines, to cope with the large volatile financial flows arising from the mining sector, to manage effectively the environmental and social impacts of mining, and to deal with the legacies of mining when it ceases.

The methodology of benchmarking practices against good or 'good-fit' naturally implies that good standards exists. Standards and tool-kits provide invaluable tools for resource-rich countries to make progress towards the realisation of the developmental potential of their natural resource wealth. However, the promulgation of good practice for dealing with problems associated with mining (such as mining legacies, financial assurances for closure and post-closure, funds to counter cyclicity) have generally lagged behind.

The prevailing reality is that substantial problems exist in the governance of the mining industry and in the effective implementation of existing governance provisions. Although some countries have made significant strides in this area, the group of countries which might be considered serious candidates for large-scale mining investment has not grown materially in recent years. Most mining investment continues to go to the same 'safe' countries as it did in the past.²

The debate in international circles currently points to the need to encourage more collaborative agendas for global resource governance. Consistent with STRADE's objective of promoting dialogues aimed at developing solutions to the pressing governance problems of the mining industry, this Policy Brief explores

¹ See, for example, Policy Briefs 1, 2, 7 and 9.

² As indeed it did in earlier booms (Bridge, 2004).

the scope and role of finding solutions through research and collaboration, considering various categories of governance gaps and the EU's role in addressing these through platforms and dialogues.

The next section examines clusters of mining sector problems that hinder developmental outcomes. These problems cut across all levels, from global to local, and require global solutions. Section 3 considers existing institutions and policies intended to address some of the problems identified in the mining sector and reviews the need for further policy action. Section 4 explores possible ways for the EU to take this agenda forward. Section 5 summarises the key points of the Policy Brief.

2. Problems in need of global action

From the point of view of the global economy, the mining industry represents “the beginning of the beginning”, the very first stage in the chain of production and in the web of so-called Global Production Networks (Dicken, 2014). On-going globalisation of trade and investment together with advances in technology have unlocked opportunities for resource development in locations far away from end-use consumers. It remains the case, however, that all the links in the chain from mine to end-use market remain intimately inter-connected. Although end-use consumers may be located at a considerable distance from mining operations, they should together with the supply chain, take responsibility for the waste generated by mining activities and socio-economic disruptions occasioned by them. Producers, whether mining companies, or producers of intermediate or finished metal products, are increasingly being asked to assume some responsibility for the stewardship of their products as they progress towards their final markets; this in addition to the careful management of the capital entrusted to them by investors, wherever and whoever they may be. Because of this interconnectedness, all parties can be deemed to have a part to play in ensuring that the links in the supply chain are developed and maintained in a way that supports their proper and effective functioning and the principle of global sustainable development.

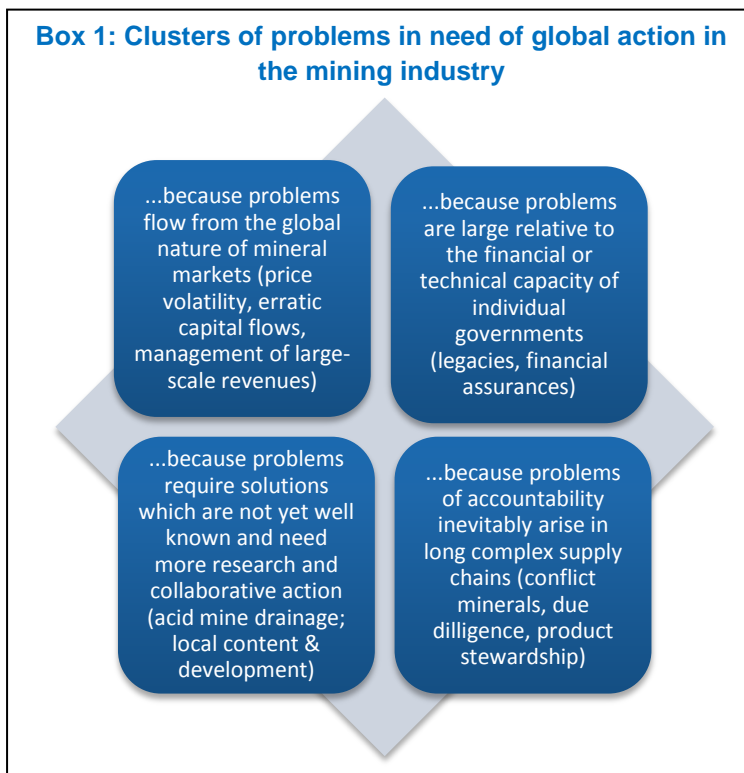
Globalisation has served to extend significantly the range of opportunities for holders of mineral resources. Industrialisation in emerging and developing economies, along with the development of new technology applications, have provided for a growing market for mineral products. Advances in geological knowledge and improvements in communications and transportation have permitted the development of resources at ever greater distances from end-use markets and created new commercial opportunities for those situated along the new, more extended, supply chains. A higher proportion of minerals cross national borders now than at any time in history. The globalisation of capital markets has made capital available for mineral development in all corners of the planet. Many companies enjoying the support of capital markets, in countries of the Former Soviet Union, in China, in Latin America and in Africa, would not, in all likelihood, have previously been able to develop their resources for lack of finance.

The deepening of globalisation has, however, brought with it a series of new problems, or accentuated those already latent within the system. In encouraging suppliers more remote from markets it has weakened traditional links between consumers and producers, and made more challenging the maintenance of mutual understanding between the parties. In the case of minerals produced by artisanal miners, who are often part of the informal economy, sometimes without any legal standing, the link is effectively non-existent. Advances in technology have served to encourage specialisation and weakened links within countries between projects and local economies. The use of more sophisticated equipment by miners tends to limit the potential contribution of the sector to foster upstream linkages (Crowson, 2010).

Most critically, globalisation has increased the number of mineral dependent economies (McKinsey, 2013). Such mineral dependence makes economies vulnerable to a range of pressures, such as the volatility of export revenues and international tax evasion, which may be beyond their jurisdictions and ability to control. In some cases, mineral dependent countries are constrained from effectively managing their resources because the challenges inherent in the nature and scale of mining – such as legacies, financial assurance for closure, or emergency planning and action – exceed the financial or technical capacity of individual governments to deal with them. Beyond the management of risks and impacts, a similar challenge of capacity is commonly encountered in countries' attempts to draw benefit from the experience of others (such as how to expand local content) and to fashion initiatives and institutions to use their natural capital as the basis for sustainable, broad-based development.

These problems constitute a serious barrier to the ability of resource-rich countries to deal with the legacy of past industry activities, to maximise their national and regional economic potential for the future, and to make progress towards achieving the UN's Sustainable Development Goals (SDGs). It should be noted that a number of these SDGs speak directly to the concerns of the mineral industry and mineral-producing countries, notably the goals relating to work and economic growth (Goal 8), responsible consumption and production (Goal 12), industry, innovation and infrastructure (Goal 9), sustainable communities (Goal 11) and the land-based environment (Goal 15).³

Without intending to be exhaustive, the rest of this section outlines some of the major categories of problems which are global in character and which suggest a need for the design and implementation of practical global solutions. For present purposes, the key focus is on problems in need of global action that relate to the 'extractive' phase of the industry. The rationale for the inclusion of items on the list of problems is laid out schematically in Box 1. A number of the problems identified have been touched on in earlier STRADE briefs.



Global market volatility: Global commodity markets are by their nature volatile. For countries with high dependence on resources for their export and government revenues this can create acute problems for economic management and planning. Some of these problems are discussed in Policy Brief 05/2016⁴.

Potential for tax evasion: Large cross-border revenue flows, which are a common feature of the resources sector, coupled with a lack of transparency along corporate supply chains, create opportunities to manipulate the location of reported revenues and to evade taxes. The scale of Illicit Financial Flows (IFFs) is unclear but could be substantial. Policy Brief 06/2016⁵ discusses IFFs in the African context. The OECD, amongst other organisations, is seeking to establish standards for addressing this issue.⁶

Capacity constraints in producing countries: The scale of the mineral sector can be large relative to the size of the domestic economy and exceed a country's institutional and financial capacity to effectively manage the sector and to deal with the negative consequences of it. Domestic issues can, in effect, 'spill over' into the global arena. Two examples of this are provided by the treatment of legacy mines and financial reassurance for rehabilitation.

Legacy mines: Many old mining sites pose major health and environmental hazards and are located in countries that lack the means to clean them up. Abandoned uranium mines in DR Congo are simply one of the many examples available. A range of environmental problems associated with mining are discussed in Policy Brief 04/2016⁷. These problems include such matters as Acid Mine Drainage, the disposal of solid and liquid wastes from mining, tailings dams and water stress. Although some environmental impacts from mining are essentially domestic, others have cross border implications through river flows, airborne pollution, the effects of deforestation and (potentially) seismic effects. And even those that appear to be wholly domestic can have broader impacts on a country's reputation for policy effectiveness and its attractiveness as a destination for foreign investment.

³ See the UN SDG website <https://sustainabledevelopment.un.org/>. See also CCSI (Columbia Centre on Sustainable Investment), SDSN (UN Sustainable Solutions Network), UNDP (United Nations Development Programme) and World Economic Forum (2016) White Paper, Mapping Mining to the Sustainable Development Goals: An Atlas (Geneva: World Economic Forum), http://www3.weforum.org/docs/IP/2016/IU/Mapping_Mining_SDGs_An_Atlas.pdf

⁴ http://www.stradeproject.eu/fileadmin/user_upload/pdf/PolicyBrief_05-2016_Oct2016_FINAL.pdf

⁵ http://www.stradeproject.eu/fileadmin/user_upload/pdf/PolicyBrief_06-2016_Nov2016_FINAL.pdf

⁶ See The Platform for Collaboration on Tax, at <https://www.oecd.org/tax/toolkit-on-comparability-and-mineral-pricing.pdf>

⁷ http://www.stradeproject.eu/fileadmin/user_upload/pdf/PolicyBrief_04-2016_Sep2016_FINAL.pdf

Financial assurance for rehabilitation and for underwriting safety net liabilities: Many countries require mining companies to establish rehabilitation funds so that there is money for restoration even if the mining company goes bankrupt. Setting aside cash is expensive for mining companies and less expensive solutions such as insurance or restoration bonds are often not available in developing countries because of the lack of a sophisticated financial service industry. Monitoring the rehabilitation performance and assessing the adequacy of the funds are also problematic.

Failures in dissemination of best practice: Standards on environmental performance, health and safety and the management of relationships with local communities in the mining sector can vary widely both within countries and between them. Mechanisms for disseminating information on best-practice and for encouraging its adoption at a global level are often weak or non-existent, with the result that many parts of the industry do not benefit from the best available practices or intelligence.

Obstacles to vertical integration: A common development objective of resource-based economies is to use mine development to leverage upstream and downstream economic development. There is a growing tendency amongst countries seeking downstream integration to deploy export restrictions to support this objective. Notwithstanding significant research on the subject and the existence of several initiatives to promote it, attempts to develop local supplier systems for mining projects have met with limited success. As the requirements of mining become ever more sophisticated (e.g. involve greater automation) so the challenges of employing local suppliers becomes ever more challenging.

Weak supply chain accountability: The length and complexity of many mineral supply chains makes for severe challenges of accountability. It is hard for metal users to provide assurances to their customers or to governments and to civil society about the provenance of their raw materials and about the conditions under which they were produced. It also poses challenges for producers seeking to ensure the effective stewardship of their products as they make their way to markets remote from the mine. Policy Brief 03/2017⁸ examines these challenges and offers insights on how the challenges might be addressed.

Conflict minerals: Problems of accountability are particularly acute in the case of so-called 'conflict minerals', minerals where armed groups appropriate part of the sales value. Although schemes exist in the EU and, at least until recently, in the USA, which seek to encourage industry to find out and declare if their products contain conflict minerals, particularly those produced in the DR Congo, security problems, the lack of resources to monitor trade and the near absence of legitimate processing and trading routes, has rendered these schemes only partially effective. Some consuming industries appear to have reacted by not sourcing from the DRC (to the cost of legitimate producers) and leaving the field to less inhibited companies.

3. Existing policy mechanisms and the case for further policy action

The problems identified in the previous section are not new. However, there is a case for arguing that the pressures of globalisation have in recent years significantly aggravated the conditions described and reinforced their cross-border character. The commodities boom which ran between the years 2004-2012 dramatically boosted the profits and the profile of the mining sector but also served to emphasise the massive political, social and environmental challenges of developing new resources in a responsible and sustainable fashion and to polarise attitudes between producer and consuming groupings (Humphreys, 2013).

Governance of the minerals sector has long been recognised as problematic and a variety of organisations, and programmes within organisations, have been established over the years to tackle these problems or aspects of them. Some of these organisations are intergovernmental in nature, some are non-governmental and some are the product of multi-stakeholder initiatives. The more prominent of these organisations are listed in Annex 1.

Despite the existence of a range of organisations designed to address resource industry governance, there remains a widespread belief that significant governance gaps still remain and that there is more that needs to be done. Recent years have seen numerous calls for new initiatives and institutions to raise standards of global governance in the mining and metals sector and to better coordinate the activities already being undertaken. (For example, Hilpert & Mildner 2013, Stevens *et al* 2013, Kooroshy *et al* 2014, Abraham 2015, Bringezu *et al* 2016, Ali *et al* 2017). These mostly focus, with important nuances, on ensuring security of supply, fair trading conditions and rules-based governance for resources, this with the ultimate aim of reducing conflict.

⁸ http://www.stradeproject.eu/fileadmin/user_upload/pdf/STRADEPoIBrf_03-2017_OpDesignExp-DueDilgncCert_Apr2017_FINAL.pdf

Another source of demands for action is focused on meeting both ecological and development targets, and stress that international environmental policy is currently missing a resource dimension.⁹ So far, no international convention exists that covers – for natural resources generally or minerals specifically – the globally sustainable use of natural resources including sustainable production and consumption. Only in a few areas are global resources managed by global institutions, e.g. the Antarctica treaty¹⁰, the UN Convention on Biological Diversity.^{11, 12} Hence the call by scientists for increased efforts to develop institutional capacities, competences and governance for sustainable resource management at an international level (Bringezu *et al*, 2016). Opinions range from a structured approach for better international cooperation of existing networks¹³ to creating new institutions like an “International Competence Center on Sustainable Resource Management”¹⁴, the signing of an international agreement aimed at securing the supply of geologically scarce minerals for future generations (Henckens *et al*, 2016), the setting up of an International Convention for Sustainable Resource Management,¹⁵ or enlisting legal mechanisms to anticipate and respond to future supply constraints on minerals.¹⁶

Many of these ‘calls to action’ are no more than that. They are first and foremost an expression of deepening concern about the on-going accumulation of global challenges confronting the sector and a strong sense that something should be done about it. They are not fully worked through ideas and are not based on an analysis of the political and economic landscape of international activities. They do not necessarily pay due regard to the realities of attempting to forge a political consensus around the need for, and design of, the institutions proposed, or acknowledge the full range of pressures that policy-makers are subject to from other sources. The proposals are also extremely diverse in their scope ranging from resources in general (including biotic and abiotic) to minerals. Depending on the particular driver for the call for global action, recommendations range from expanding forums such as the International Energy Agency, the International Energy Forum, the UNEA and the International Resource Panel, to establishing an Intergovernmental Forum for Mining and Minerals in the minerals sector.

For all the differences in these proposals, a unifying feature is the conviction that the world is changing in ways that makes the challenges of resource management greater and traditional approaches to addressing these challenges less effective.

As discussed in the previous section, there is much evidence that the forces of globalisation have broadened and deepened the problems of mining sector governance, creating new cross-border challenges and exacerbating old ones. Despite numerous past initiatives, many mineral-rich countries remain effectively uninvestable (or, if not uninvestable, then extremely difficult to invest in) because of their policy environments to the detriment of the citizens of those countries and to international consumers of minerals. Many mines are large relative to the economies in which they are situated giving rise to critical issues of economic management. The mounting importance of cross-border environmental threats, such as climate change and water availability, are bringing additional pressures to bear on mineral producers. The increasing diversity of global mineral production and the growing length of global supply chains add another level of complexity and increased potential for unscrupulous operators to manipulate the system and evade taxes.

It is also becoming apparent that the geopolitical context within which the mining industry operates is changing, raising questions about the suitability of approaches that have been used to address sector governance problems in the past. The globalisation of capital markets has resulted in the creation of a whole range of new participants in the mining industry, with structures and objectives which do not necessarily match those of the western transnational corporations (TNCs) which have dominated global mining in the past. China has become much more active in the minerals sphere both as a buyer of minerals but also as an off-shore investor in minerals offering resource-rich countries looking for investment in their mining sectors an alternative to the western companies and aid agencies which have historically dominated this space.

⁹ Ali S H *et al* (2017), p. 367 (371).

¹⁰ Secretariat of the Antarctic Treaty: http://www.ats.aq/index_e.htm. Article 7 prohibits all activities relating to Antarctic mineral resources, except for scientific research. Until 2048 the Protocol can only be modified by unanimous agreement of all Consultative Parties to the Antarctic Treaty. In addition, the prohibition on mineral resource activities cannot be removed unless a binding legal regime on Antarctic mineral resource activities is in force (Article 25.5).

¹¹ Convention on Biological Diversity (CBD): <https://www.cbd.int/>.

¹² Bringezu S *et al* (2016), p. 7.

¹³ Ali S H *et al* (2017), p. 367 (371) stress the need to establish links between institutions with responsibilities in responsible sourcing of minerals, minerals exploration, environmental practices and consumer awareness on the impacts of consumption.. The FORAM-project seeks to establish a “World Forum on Raw Materials” by giving recommendations on “a structured approach for better international cooperation towards more transparent access to and coordination between relevant raw materials initiatives, networks and strategies.” See the FORAM-website: <http://www.foramproject.net/index.php/project/wp/wp4/>.

¹⁴ Bringezu S *et al* (2016), p. 20.

¹⁵ Bringezu S *et al* (2016), p. 20.

¹⁶ Ali S H *et al* (2017), p. 367 (370).

4. Platforms for strategic dialogue: outlining a way forward

The range of governance issues identified and discussed in sections 2 and 3 above are matters of considerable consequence for EU consumers, producers and policy-makers. They also represent an opportunity to advance ideas for measures which acknowledge the changes taking place in the minerals sector and seek to address the new problems to which these change are giving rise. The elaboration of such measures needs to take account of the work of institutions which are already addressing the governance agenda and also the areas in which the EU has particular strengths and a particular contribution to make. It is not, however, the purpose of this brief to recommend specific institutional solutions but rather to clarify the requirements (pre-conditions) of such institutional solutions and outline possible ways forward.

Key participants in the mineral supply chain should be able to come together to discuss in a direct and practicable way, their concerns about governance and to investigate appropriate means to address them. It is acknowledged that the categorisation of countries as either mineral-rich or mineral-importing in this brief is a simplification. Some countries, like China and the USA, are both mineral-rich and major importers of minerals. There are also other important players within the mineral supply chain, such as producers of intermediate products, traders and equipment suppliers, who have important parts to play in linking mines to end-users. However, the underlying geopolitical reality is that the majority of countries in the world are either net consumers (importers) or net producers (exporters) of mineral commodities, which in fact tends in practice to shape their economic interests and their policy perspectives. The object of dialogue between these groupings, and with other participants in the mineral supply chain, is to allow them to give expression to their specific perspectives in a structured environment and to seek out common ground with a view to forging agreement on priorities for joint action.

Several factors need to be taken into account in fashioning a suitable approach. A large number of organisations, both intergovernmental and voluntary, are already engaged in promoting the sharing of knowledge about the sector and the employment of best practices within it. The EU itself has supported the development of such information tools as the EU's "Raw Materials Scoreboard"¹⁷ and the raw material information system currently under development by the Joint Research Centre (JRC).¹⁸ The recently-launched EU project FORAM would also appear to be devoted to this objective.¹⁹ As regards seeking to forge new legally-binding agreements to raise the level of sector governance, this may have the appeal of appearing to offer 'best case' outcomes but in practice would be extraordinarily hard to achieve and, realistically, might well fail in fulfilling its objectives. Other possibilities such as promoting more direct interventions in supplying countries where EU companies are operating, along the lines of policies operated by the governments of Canada and Australia, are constrained by the nature and jurisdiction of the EU. These are essentially matters for individual countries not the EU. On balance, it would seem better for the EU to build out from its acknowledged and proven strengths in promoting programmes of intergovernmental collaboration.

One possibility worthy of consideration is for the EU to seek to become actively involved in the International Governance Forum (IGF). As constituted, the IGF has a membership skewed towards mineral-producing countries but this partly reflects its particular history and membership of the organisation is in principle open to all countries. Such an approach has the advantage that the IGF is an established and respected organisation which has a clear focus on governance issues. A strong and visible presence for the EU at the IGF would give greater substance to the dialogue which already takes place in the IGF between countries in the mineral supply chain and possibly encourage other large mineral-importing areas, such as the USA, Japan and China, to become more actively involved.

As the world's second largest mineral-importing region (after China) and as home to many large mining companies, the EU is well positioned to lead the debate on the need for new institutional platforms for mineral-rich and mineral-importing countries. The EU also has a strong self-interest to bring participants in the global mineral supply chain together to identify pressing problems of industry governance and in assisting in the effort to find practical solutions to these problems.

Part of the rationale for seeking to bring together countries with an interest in mineral development is to facilitate the elaboration of practical solutions to a range of cross-border natural resource governance problems in a format that encourages innovation and collaboration between a range of actors (local and international, business and government, international organisations and academia).

¹⁷ The scoreboard is an initiative of the European Innovation Partnership (EIP) on Raw Materials. It was prepared by the Commission's Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs and the Directorate-General Joint Research Centre (JRC) and has the aim to support policy in the raw materials context.

¹⁸ European Commission. JRC Raw Materials Information System: <https://ec.europa.eu/jrc/en/scientific-tool/raw-materials-information-system>.

¹⁹ FORAM, Towards a World Forum on Raw Materials: <http://www.foramproject.net/>

Structured dialogue between mineral producing and consuming countries on key issues of mutual interest would help reveal priority problems of governance. These might include some of the problems identified in section 2 above, but may be other problems entirely (see Box 2). It would be for the participants in the dialogue to decide, although the presumption is that the problems should have clear cross-border implications and should not currently be satisfactorily addressed by existing organisations. The process of identifying problems should lead naturally to the isolation of possible solutions to these problems and, critically, provide an imperative for the implementation of these solutions. Contrary to an approach which starts out from assumptions about what the industry needs and then proceeds to the design of solutions to meet these needs, under this approach the 'needs' of the industry are expressed directly by participants in the dialogue, who in turn become responsible for developing solutions and for applying those solutions. In short, it becomes a single process, with the resolution of real problems at its heart. An additional benefit of such a solutions-based approach is that it should be more adaptable to changing conditions in the industry, avoiding the rigidities inherent in a more monolithic organisational approaches, and maintaining its policy relevance. It should in principle also be a more focused and cost effective way of tackling problems than is generally the case with large organisations having broader remits.

A solutions-based approach to governance issues might conceivably also find expression in other contexts. It is possible, for example, to envisage the adoption of the approach by the EU to obtain greater leverage from its existing range of policy instruments in support of improving industry governance. This might be done by constituting an expert group with the objective of identifying key contemporary issues of governance and advising on practical ways in which the policy instruments of the EU might be used to help address them and on the development of new instruments which might better meet the requirements. Here also, the issues of governance to be addressed may include some those identified earlier in this brief or could be others deemed more pressing and relevant to the needs of the day.

BOX 2: Solution-based platforms

Legacy mines: There are many old mining sites that pose major health and environmental hazards and are located in countries that lack the means to clean them up. The provision of funds for feasibility studies of cleanups, could be considered.

Financial assurance for rehabilitation: Many countries require mining companies to establish rehabilitation funds for restoration, which is an expensive exercise for mining companies. Less expensive solutions (insurance or restoration bonds) are often not available in developing countries. Monitoring the rehabilitation performance and assessing the adequacy of the funds are also problematic. Possible solutions could include supporting the establishment of a framework allowing provision of such financial services.

Conflict minerals: The EU could soon be the only jurisdiction with a conflict minerals legislation. The EU could step up its efforts to ensure that the legislation works and minimize collateral damage. Solutions could include arranging for resources necessary to support due diligence schemes to be effective and investing in properly managed supply chains.

Mining related infrastructure: Resource corridors have been much discussed in recent years but with few concrete results. "Anchor customer" i.e. mining companies paying for the investment, have little incentive to allow others to use the infrastructure. A possible solution could provide financial incentives for companies.

Local supplier development: Uncertainty remains around the effectiveness of such schemes. Existing studies focus on gross project impacts and are often less revealing about net benefits. A practical step would be to support a broad and stringent analysis and evaluation of the results of the various schemes, and provide industry and governments with detailed findings of what is effective.

Lack of grievance mechanisms: This issue is not unique to mining but has particular resonance because of the intensity of local social and environmental impacts of the activity. A solutions based approach could examine the creation of an independent ombudsman to deal with resource disputes settlement. This could also include the establishment of grievance mechanisms for disaffected workers and communities.

Internationalization of TSM-approach: The Canadians and Finns have adopted a TSM-approach to improve the control and management of tailings dams born out of their own experiences of tailings dam failures. Solutions could support the interest in, and opportunities for, rolling out this approach in various developing countries.

5. Summary and conclusions

Mineral-rich countries have unique opportunities to transform their mineral wealth into sustainable economic development. However, to realise these opportunities, such countries face the challenge not only of establishing conditions to attract investment but also of regulating an activity that, if badly managed, can severely damage the natural environment, disrupt communities and distort the economy. This represents a particularly challenging task for countries with less mature institutions and gaps in their industry governance.

Such 'governance gaps' commonly arise as the result of a mismatch between global economic forces and the capacity of local actors (national and sub-national) to regulate, exercise oversight and transform economic activities into developmental outcomes. With advancing globalisation, this governance gap is widening. The spread of global capital, longer and more complex supply chains and the growth of cross border environmental issues, mean that what were once considered essentially national issues are now spilling over into the global arena and becoming matters for global management. The scale of modern mining problems and the limited institutional capacity of some mineral-rich countries to deal with these naturally makes them matters of concern to the international community.

A variety of organisations, global and regional, sectoral and cross-sectoral, have sought to grapple with aspects of the governance gap and with associated problems of implementation. However, a number of voices have been raised arguing that the scale and nature of the governance challenge means that more needs to be done. There are many facets of this but one relevant to the agenda of STRADE is the absence of an effective forum bringing together participants in the mineral supply chain with a view to staging a dialogue leading to the identification of priority problems of governance and the development of suitable practical solutions. Participants to the forum should be mineral-rich countries and mineral-importing countries as well as producers of intermediate products, finished metal products and traders.

This brief examines the need for a solutions-based dialogue and considers ways in which the idea of staging such a dialogue might be taken forward. The dialogue might be conducted in a forum created specifically for the purpose. An alternative might be for the EU to lend its support to the establishment of a dialogue within an existing intergovernmental organisation such as the IGF. It is also suggested that a solutions-based approach might potentially be used to improve the focus and effectiveness of instruments for addressing governance issues already available within the EU.

References

- Abraham D (2015) *The Elements of Power: Gadgets, Guns and the Struggle for a Sustainable Future in the Rare Metal Age*, (Yale University Press: New Haven and London)
- Ali S H *et al* (2017), Mineral supply for sustainable development requires resource governance, *Nature*, Vol. 543, 2017, 367-372.
- Bastida A E (forthcoming), *Mining Law and Governance* (Hart Publishing, Oxford).
- Bridge G (2004) Mapping the bonanza: geographies of mining investment in an era of neoliberal reform, *The Professional Geographer*, Vol 56, No 3, 406–421.
- Bringezu S *et al* (2016): Multi-Scale Governance of Sustainable Natural Resource Use—Challenges and Opportunities for Monitoring and Institutional Development at the National and Global Level, *Sustainability* 2016, 8, 778; doi:10.3390/su8080778.
- Crowson P (2010) The resource curse: A modern myth? in Richards J (ed) *Mining, Society and a Sustainable World*, Springer, pages 3 -37.
- Dicken P (2014) *Global shift: mapping the changing contours of the world economy*, 7th edition, Sage, London.
- Henckens M L C M *et al* (2016), The set-up of an international agreement on the conservation and sustainable use of geologically scarce mineral resources, *Resources Policy* Vol 49, 92-101, <http://dx.doi.org/10.1016/j.resourpol.2016.04.010>.
- Hilpert H G and Mildner S-A (eds) (2013) *Fragmentation or Cooperation in Global Resources Governance? An SWP/BGR collaboration*, SWP Research paper.
- Humphreys, D (2013) *New Mercantilism: A Perspective on How Politics is Shaping World Metal Supply*, *Resources Policy*, Vol.38, No.3.
- Kooroshy J, Preston F, Bradley S, (2014) *Cartels and Competition in Minerals Markets: Challenges for Global Governance*, Chatham House.
- McKinsey Global Institute (2013), *Reverse the curse: Maximizing the potential of resource-driven economies*.
- Ruggie J (2008) *Protect, Respect and Remedy: A Framework for Business and Human Rights*, Human Rights Council A/HRC/8/5
- Stevens P, Kooroshy J, Lahn G and Lee B, (2013) *Conflict and Coexistence in the Extractive Industries*, Chatham House.

Annex 1

Intergovernmental organizations:

- **Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF)**²⁰, founded in 2002, is a platform “committed to leveraging mining for sustainable development to ensure that negative impacts are limited and financial benefits are shared”. European members include France, the UK, Germany, the Netherlands and Romania. IGF offers members conferences, in-country assessments, guidance documents and capacity building training around the so-called Mining Policy Framework, a policy guidance and assessment tool. The Secretariat is hosted by the International Institute for Sustainable Development and funded by the government of Canada.
- **UNEP – International Resource Panel** has a scientific role: conducting independent, scientific assessments of policy relevant on sustainable natural resource use, particularly on the environmental impacts over the full life cycle. It is formed by 36 distinguished scientists with expertise in resource management. It was launched by UNEP in 2007.²¹
- **The International Metals Study Groups**²² include the International Lead and Zinc Study Group formed in 1959; the International Copper Study Group and the International Nickel Study Group formed in 1990. They are intergovernmental organisations formed by countries involved in the production, consumption or international trade of these metals in order to collect and publish statistics and enhance market transparency. The groups may grant permanent observer status to intergovernmental organisations (like OECD / UNCTAD) and private sector institutions (including Eurometaux, ICM).²³
- **United Nations Environment Assembly (UNEA)**²³ is the highest level decision-making body on the environment. It is formed by all 193 UN Member States, with major stakeholders from business and civil society.
- **UNCTAD**²⁴ is a permanent intergovernmental body part of the UN Secretary. It provides analysis, ‘consensus-building’ and technical assistance to countries on trade, investment, finance and technology. It promotes the effective use of natural resources and encourages economic diversification away from commodities by limiting exposure to financial volatility and debt, by attracting investment and adapting to climate change.
- **UNDP** – has developed a Strategy for Supporting Sustainable and Equitable Management of the Extractive Sector and provides support on legal and institutional frameworks in the sector, as well as revenue management.²⁵ UNDP also funds and implements the ACP-EU Development Minerals Programme to enhance the management of non-metallic ‘development’ minerals (industrial minerals, construction materials, dimension stones and semi-precious stones). The Programme is also funded by the EU and was launched in 2015.²⁶
- The **World Bank**²⁷ has an extractive industries unit that provides advice on financial, social and environmental sustainability. The Bank is formed by 189 states, with voting powers allocated in accordance to their capital subscriptions.
- **Bilateral dialogues**, for example between the EU and resource-rich countries. Dialogue-based platforms are established between the EU and USA, Japan, India, Brazil, trading blocs in Latin America, and the Euro-med countries of Tunisia, Morocco, Egypt as well as Greenland.²⁸
- **International non-governmental organisations:**
 - The **World Resource Forum Association (WRFA)**²⁹ is an independent non-profit international organization that serves as a platform connecting and fostering knowledge exchange on resources management amongst business leaders, policy-makers, NGOs, scientists and the public. WRFA aims to make the vision of sustainable use of resources worldwide a reality by organising high-level international conferences and capacity-building workshops, disseminating relevant research findings

²⁰ See the IGF-website: <http://igfmining.org/>.

²¹ For an overview on the Panel Members and the steering committee members see: <http://staging.unep.org/resourcepanel/>

²² See the websites, <http://www.icsg.org/>, <http://www.insg.org> and <http://www.ilasg.org>

²³ See the UNEA-website at: <http://www.unep.org/unea/about-unea>

²⁴ See the UNCTAD-website at: <http://unctad.org/en/Pages/Home.aspx>

²⁵ See <http://www.undp.org/content/undp/en/home/ourwork/sustainable-development/natural-capital-and-the-environment/extractive-industries-.html>

²⁶ See at UNDP website http://www.undp.org/content/brussels/en/home/ourwork/sustainable-development/in_depth/capacity-development-of-mineral-institutions-and-of-small-scale-.html

²⁷ See the World Bank-website at: <http://www.worldbank.org/>.

²⁸ Farooki M, Humphreys D, Malden A, Cramphorn L. (2017) STRADE Report, European Union and Raw Material Engagements with Developing Countries – A Review, p23.

²⁹ See WRF-website: <http://www.wrforum.org/us/networks/>

and scientific discussions, developing resource efficiency indices, setting standards for sustainable resource use, creating opportunities for financing resource efficiency projects as well as by engaging with young leaders and the wider public. Global and regional forums and smaller scale meetings have been held in Europe, Asia and the Pacific, Africa, and Latin America and the Caribbean.

– **Natural Resource Governance Institute (NRGI)**³⁰ is a non-governmental organisation that provides policy advice and advocacy for governments and societies of resource-rich countries to improve governance of natural resources as a means to promote sustainable and inclusive development. Advice revolves around the “Natural Resource Charter”³¹ issued in 2010 with 12 best-practice precepts (e.g. on fiscal terms, contracts, institutions and regulations, to macroeconomic management and strategies for sustainable development). In 2011, the Charter was adopted by the African Union Heads of State steering committee for the New Partnership for Africa's Development as a flagship Natural Resource Governance Programme starting in 2012. In 2012, the “Natural Resource Charter Benchmarking Framework” was published, which allows governments and societies to assess their performance in natural resource governance according to the 12 precepts.

• **Multi-stakeholder initiatives:**

– **Extractive Industries Transparency Initiative (EITI)**³² was founded in 2003 and has become a global standard for the open and accountable management of oil, gas and mining industries resources. Fifty-two resource-rich countries from around the world have implemented the standard so far and are required to disclose information along the extractive industry value chain, from the point of extraction, following revenues through the government, to how they ultimately benefit the public. Each member state provides an EITI-report containing information on the licensing and contracting processes, fiscal and legal arrangements, revenue payments, locations of allocated revenues, and economic contributions in the country concerned. EITI implementation in a country is guided by a national multi-stakeholder group, with contributions from companies, state organisations and CSOs.³³

– **European Innovation Partnership (EIP) on Raw Materials**³⁴ is a stakeholder platform that brings together representatives from industry, public services, academia and NGOs. It covers all non-energy, non-agricultural raw materials (i.e. metals, minerals and biotic materials – both primary and secondary production) and provides high-level guidance on innovative approaches to the challenges related to raw materials.

³⁰ See the NRGI-Website: www.resourcegovernance.org

³¹ The 2nd edition of the Charter can be downloaded at: <http://www.resourcegovernance.org/analysis-tools/publications/natural-resource-charter-2nd-ed>

³² See EITI-website: <https://eiti.org/>

³³ Schüler D, Brunn C, Gsell M, Manhart A (2016) Outlining Socio-Economic Challenges in the Non-Fuel Mining Sector, STRADE Policy brief 05/2016. p8.

³⁴ European Commission, 2012, 'Making raw materials available for Europe's future well-being: Proposal for a European Innovation Partnership on raw materials', COM(2012) 82.

Project Background

The Strategic Dialogue on Sustainable Raw Materials for Europe (STRADE) addresses the long-term security and sustainability of the European raw material supply from European and non-European countries.







Using a dialogue-based approach in a seven-member consortium, the project brings together governments, industry and civil society to deliver policy recommendations for an innovative European strategy on future EU mineral raw-material supplies.

The project holds environmental and social sustainability as its foundation in its approach to augmenting the security of the European Union mineral raw-material supply and enhancing competitiveness of the EU mining industry.

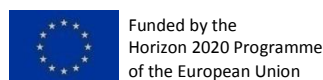
Over a three year period (2016-2018), STRADE shall bring together research, practical experience, legislation, best practice technologies and know-how in the following areas:

1. A European cooperation strategy with resource-rich countries
2. Internationally sustainable raw-material production & supply
3. Strengthening the European raw-materials sector

Project Identity

Project Name	Strategic Dialogue on Sustainable Raw Materials for Europe (STRADE)
Coordinator	Oeko-Institut; Doris Schueler, Project Coordinator, d.schueler@oeko.de
Consortium	OEKO-INSTITUT E.V. – INSTITUT FUER ANGEWANDTE OEKOLOGIE Merzhauser Strasse 173, Freiburg 79100, Germany
	SNL Financial (AB) Olof Palmes gata 13, Se -111 37, Stockholm, Sweden
	PROJEKT-CONSULT BERATUNG IN ENTWICKLUNGS-LAENDERN GMBH Laechenstrasse 12, Bad Vilbel 61118, Germany
	UNIVERSITY OF DUNDEE Nethergate, DD1 4HN Dundee, United Kingdom
	GEORANGE IDEELLA FORENING Box 43, Mala 93070, Sweden
	UNIVERSITY OF WITWATERSRAND JOHANNESBURG Jan Smuts Avenue 1, Johannesburg 2001, South Africa
	DMT-KAI BATLA (PTY) LTD P.O Box 41955, Craighall, 2024, South Africa

Funding Scheme This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 689364



Duration 1.12.2015 – 30.11.2018

Budget EU funding: €1 977 508.75

Website www.STRADEproject.eu

The views expressed in STRADE Policy Briefs are those of the respective author(s) and do not necessarily reflect the views of all the STRADE Consortium members. The European Union is not responsible for any use made of the information in this publication.