

GREAT *insights*

Mining for Development



In this issue:

Industrialisation and local content

Responsible and sustainable mining

Human capital

Reform processes

Conflict minerals

With contributions from:

President Obasanjo, Brenthurst Foundation, AMDC, ACET, World Bank, OECD, DG Trade, OPM, LADOL and IGMC

Contents

About *GREAT Insights*

Governance, Regional integration, Economics, Agriculture and Trade (*GREAT Insights* is ECDPM's magazine covering a wide range of topics related to economic development in Africa and the developing world. *GREAT Insights* gathers expert analysis and commentary from a wide variety of stakeholders with different perspectives.

GREAT Insights is published by ECDPM

Editor:

Sanoussi Bilal,
sb@ecdpm.org
Twitter: @SanBilal1

Executive editor:

Lyssa Bode lb@ecdpm.org

Web editors:

Jacques van Laar and
Jacquie Dias

Design, layout and

production: Claudia Backes,
cba@ecdpm.org.

HEAD OFFICE

Onze Lieve Vrouweplein 21
6211 HE Maastricht
The Netherlands
Tel +31 (0)43 350 29 00
Fax +31 (0)43 350 29 02

BRUSSELS OFFICE

Rue Archimède 5
1000 Brussels
Belgium
Tel +32 (0)2 237 43 10
Fax +32 (0)2 237 43 19

ISSN: 2215-0593 (print)
2213-0063 (online)
For further information
or to subscribe to our
E-newsletters, visit
www.ecdpm.org/subscribe.
To order a hard copy of an
ECDPM publication,
info@ecdpm.org.

This publication benefits
from structural support by
ECDPM's institutional partners
The Netherlands, Belgium,
Estonia, Finland, Ireland,
Luxembourg, Sweden,
Switzerland, Austria and
Denmark.

Copyright:

Prior permission is not required
for quoting, translating or
reproducing part of the
contents of this publication
provided the source is fully
acknowledged.

Industrialisation and local content

- 4 Mining for Africa's development**
Former President Olusegun Obasanjo, et al. Brenthurst Foundation
- 7 From Africa to country mining visions**
Isabelle Ramdoo, African Minerals Development Centre
- 10 When local content requirements meet technological innovations**
Joe Amoako-Touffour, African Center for Economic Transformation
- 12 Five key linkages to enable resource-led growth**
Mark Beare, Oxford Policy Management
- 15 Blueprints for sustainable industrialisation in West Africa – lessons from resource-rich Nigeria**
Amy Jadesimi, LADOL

Mining and sustainable development

- 18 Local communities can reap better benefits from mining if market and fiscal channels are strong**
Punam Chuhan-Pole and Andrew Dabalen, World Bank
- 20 Between global and hyperlocal: A territorial approach to partnerships in mining**
Alfonso Medinilla and Karim Karaki, ECDPM
- 23 Responsible mining: Partnership to help achieve the SDGs**
Pam Bell, et al., IGMC
- 25 On the political economy of reforms in the extractive sector**
San Bilal, ECDPM
- 27 African mining, employment and women's empowerment**
Anja Tolonen, Barnard College, Columbia University

Human capital

- 30 From mines and wells to well-built minds: turning Sub-Saharan Africa's natural resource wealth into human capital**
Bénédicte de la Brière and Deon Filmer, World Bank
- 33 Lack of skilled human capital in resource-rich Africa: the real paradox?**
Nelly Farah Nguégan, The International Relations Institute of Cameroon

Due diligence and conflict minerals

- 35 A global initiative to end support to conflict through mineral production and trade**
Louis Maréchal, OECD
- 38 Trade as a vehicle of our values and development: The new EU Regulation on conflict minerals**
Signe Ratso, DG Trade, European Commission
- 40 EU's ore and metal import flows and engagement towards responsible sourcing in industry supply chains**
Doris Schüler, Oeko-Institut
- 43 A high price for cheap electronics**
Théo Jaekel, Vinge Law

Regulars

- 3** Editorial
- 46** The Weekly Compass Newsletter
- 47** Talking Points Blog highlights
- 48** Latest ECDPM publications

Cover photo:

LiLe employees working at the Free Zone. LiLe is a full service logistics and vessel repair company operating in LADOL, photo with permission of LADOL.



Editorial

Embracing the complexity of mining for development

Extractive resources have the potential to bring significant wealth to a country. Whether this translates into sustainable development is a totally different ball game. The rich-endowment of natural resources is often a mixed blessing, and at times a genuine curse.

In the context of the UN 2030 Agenda for Sustainable Development, the extractive sector touches upon most, if not all, the sustainable development goals (SDGs). The size of extractive operations and the significance of the sector for some resource-rich countries means that it dominates not only specific local areas, their economies, the communities and surrounding environment, but has also implications for the country as a whole: its economic structure, governance and ultimately, its development path.

In practice, this results in a complex web of interconnected issues and actors. It is also reflected in the wide range of perspectives on extractive-related questions.

Traditionally, international institutions and partners in particular have focused on the governance dimension of the extractive sector. Based on the observation that natural resources are often poorly managed in developing countries with weak institutions, and that the rents generated are captured by vested interests for their own benefit rather than the general interest, efforts have been put on combating corruption, promoting the rule of law, as well as greater transparency and accountability. OECD Guidelines, and in particular the the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas are voluntary guidelines, whereas the US Dodd-Frank Act, the EU transparency and accounting directives and the recently adopted EU conflict minerals regulation are all examples of state-led regulatory endeavours to improve extractive-related governance. The Extractive Industries Transparency Initiative, and Publish What You Pay are illustrative of parallel initiatives by non-state actors.

In addition, international partners seek to positively influence the management and governance of natural resources through dedicated financial and technical support to resource-rich developing countries. Aid conditionality, as in the case of budget support for instance, has also been one of the mechanisms used.

On the other side, mining companies are legitimately concerned first and foremost by their returns on investment, the key responsibility towards their shareholders, and thus what's happening within their own mines and, increasingly, around their mines. Beyond the direct positive contribution that mining might bring, including to local communities, mining companies (at least some of the major ones) are increasingly seeking to promote responsible practices as part of their long term sustainability strategies. These include, among other things, health and safety issues, working conditions, housing, local communities and environmental dimensions, often collectively referred to as a 'social licence to operate'. Yet, such endeavours cannot be undertaken by the companies

alone, and the phrasing adopting by Rio Tinto, which prefers to adopt the strategy of 'partnership to operate', might better reflect the task at hand.

Better understanding the potential impact of extractive activities, benefits and challenges, at a local level is therefore important. So is the need to improve the governance and management of natural resources, which is a necessary requirement. But it is not a sufficient condition.

First, instead of focusing on best practices, as many international actors do, more emphasis should be put on context analysis and 'good fit' approaches, taking explicit account of political economy dynamics, so as to increase the chances of leading to effective improvements in practice.

Second, the extractive sector should not be an enclave in the economy, and approached as such by domestic and international actors. The extractive sector can play a pivotal role in the industrialisation and economic transformation of resource-rich countries, stimulating more inclusive and sustainable growth.

This requires looking beyond the perimeter fences of the mines, and considering broader dimensions such as governance frameworks, the structures of licensing and contracts, taxation, and genuine linkages with economic activity in the rest of the economy through local content policies, innovation, skills development and education, entrepreneurship, infrastructures, and territorial development approaches, to mention just a few.

The Africa Mining Vision (AMV), championed by the African Union, paves the way in that direction at a continental level, and international institutions should follow suit. The challenge is to translate vision to concrete national and local actions.

Given the multitude of interests and stakeholders at stake, cross-fertilisation through dialogues and partnerships is a requirement for any successful endeavour. Mining for development does imply going beyond mining.

This issue of *GREAT Insights* tries to bring together this wide range of perspectives, taking mining as a starting point to address more fundamental dimensions of the sustainable development agenda.

We hope you will appreciate these insights and welcome your comments and contributions.



Dr San Bilal (Editor), Head of Programme, Economic Transformation - Trade, Investment and Finance, ECDPM.

Follow San on Twitter: @SanBilal1

Mining for Africa's development

by Olusegun Obasanjo, Greg Mills and Dickie Davis

Africa's all-important mining sector is in crisis. At its root is a lack of trust between mining companies, governments and civil society. A failure to tackle this crisis will result in serious, adverse implications for both economic growth and employment prospects at the very moment the continent's need for jobs is rapidly increasing.

African economies are heavily dependent on the extractives sector, which comprised 28% of the continent's combined gross domestic product in 2012, 77% of total exports and 42% of all government revenues. Studies by the International Mining and Minerals Council (ICMM) show that for every US\$1 generated by mining, at least an additional US\$3 is generated elsewhere in the local economy, and that for every direct mining employee, as many as 15 more jobs are created elsewhere in that economy.

During the commodity boom, there was considerable optimism that African economies were changing and that they were no longer dependent on raw material exports. However, the commodity price downturn has illustrated the continent's continued dependency on this sector and its vulnerability to variations in external demand, especially from China which, since 1990, has grown its share of worldwide metals consumption sevenfold to over 40%.

In this new, highly competitive yet austere environment, governance and policy attractiveness will become increasingly important differentiators in the performance of African countries. Just as important will be the state of health of regulatory and administrative processes needed to ensure strong and diversified growth. These factors, too, will be vital determinants for attracting investment and growth in mining projects. Indeed, as the World Bank has noted, after geological factors, governments are the single largest determinant of where mining investments flow globally.

Towards a vicious downward cycle

Despite the commodity boom, the relationship between the industry and government in Africa has been characterised

by abiding levels of mistrust on both sides, fuelled by misperception. Legend persists that mines have massive wealth and, at an extreme, deliberately steal ore or withhold tax through under-declaration or 'transfer pricing'. Meanwhile the mining companies complain that the long-term nature of their business, through good and bad times, and the levels of risk they have to take are not understood by those who set the rules. Such tensions are compounded by increasing capital intensity and mining mechanisation, the effect of which is felt particularly in those countries where mining is the mainstay of the economy and often the main or even only source of jobs.

While the success of mining demands a partnership of common interest, and Africa's young and burgeoning population demand jobs and growth, policy instability has planted the seeds for a vicious downward cycle. Policy uncertainty leads to investor uncertainty, limits the pool of capital available and thus decisions on many major mining investments are put on hold. As large mining companies rebalance their portfolios seeking the best returns for the least risk, policy uncertainty fuels a move from reputable to less reputable and ultimately small-scale mining companies, and eventual 'de-evolution' of the mining sector. These smaller mining companies tend to have less-developed governance systems, which in turn increases the burden of regulatory oversight in an environment in which many governments already possess only limited capacity. Lower capacity and the increased need to regulate can result in further distrust and renewed dissatisfaction of government and society, creating political pressure for even more change.



Zambia Kansanshi Copper Mine Photo: mwmbwls, Flickr.com

Zambia's policy instability

Zambia's mining policy changes illustrate this cycle. The giant US\$2.1bn Kalumbila Mine in the northwest, which is beset with challenges of power provision and land title rights, was the country's last major new mining investment. New investments and mine life extensions are being deterred as a result of government changes to the mining tax regime and abrogation of development agreements that assured investors of a 15-year stability period on fiscal policy.

Yet the country's tax regime has offered precisely the opposite to the stability investors seek.

In 2011 the Zambian government implemented a 6% turnover tax and 30% corporate tax for the mines. In January 2015 it switched to a flat 8% turnover tax on underground mines and 20% Mining Royalty Tax (MRT) for open pit operations. As the IMF concluded in June 2015, "at 50%, the AETR (Average Effective Tax Rate) for Zambia was second-highest among major copper-producing countries." This came on the back of an earlier change to VAT arrangements, resulting in government prevarication on repaying around US\$1bn to mining companies. Then the new tax regime was overturned within eight months in favour of a 9% royalty tax for open pit operations and 30% corporate tax plus a variable tax of 15% above a specified profit threshold. After much heated debate, in 2016, the government proposed a 30% corporate tax and sliding royalty scale of 4-6%, still some way off the global sweet spot of a 30% corporate tax and a 3% royalty.

South Africa's troubles

The mining industry in South Africa is also suffering through a combination of policy instability, persistent fears about

nationalisation and labour militancy. The publication by government of the 2016 *Mining Charter* draft in spite of industry representations is cited as a current example; the manner of the publication of the *Codes of Good Practice for the Mining Industry* in April 2009 and its subsequent amendment is cited as a more historical one.

A 2010 Citibank survey put South Africa as the world's richest mining country in terms of non-oil reserves, worth an estimated \$2.5tr at then current prices, more than Russia and Australia at around \$1.6tr apiece. Yet, whereas by the late 1980s South Africa's share of global mining was 40%, with some 880,000 jobs in the sector, by 2014 it had declined to 4.5% and fewer than 500,000 jobs, even though the sector still accounted for 8% of GDP and more than half of South Africa's merchandise exports. By 2011 South Africa's global share of greenfield mining projects was just 5%; Australia's was 38%.

Such a drop in investment is consistent with trends in other parts of Africa, and undermines growth. It does not have to be this way.

Lessons from Chile

Meanwhile Chile's economic growth since the 1980s has been nothing short of remarkable, particularly during the 1990s when it averaged an annual rate of over 7%. In 1972 it was recorded to have the 'second worst economy in Latin America', inflation had reached 500%, there were frequent strikes and 'nationalisation, price controls and high tariffs were the order of the day', and the state controlled more than two-thirds of economic output. Yet from a low of US\$4,000 per capita in 1975 in the wake of political instability, real income per person more than tripled over the next 30 years.

This transformation has been built on two pillars:

- The first was the institution of free market economic reforms in the mid-1980s by a team of bright young economists.
- The second pillar of economic transformation relied on a massive increase in domestic copper production. Copper, of which Chile supplies nearly a third of the world's annual consumption, accounts for some two-thirds of the country's export revenue.

The transformation of this sector over a quarter century, however, has been spectacular. In 1990, the private sector accounted for less than one-quarter of Chilean copper mining output. By the end of the 2000s, the state mining company CODELCO was producing more than twice as much copper as it had done twenty years before; yet the private sector was producing two-thirds of the annual national output of six million tonnes. In 1970 Chile produced the same amount of copper as Zambia; four decades later it produced eight times more.

Chile is not alone: Botswana, Panama, Mauritania all offer other thought-provoking success stories.

From tensions to win-win outcomes

Solving the current crisis in African mining requires firstly an acknowledgement that the sector is beset by a number of critical tensions between government and business, around policy content and consistency on the one hand, and a mismatch of expectations on the other. The African narrative on mining tends to be fuelled by sentiment, emotion, and a lack of information. These issues manifest themselves in the role of personal discretion in determining outcomes, rather than administrative processes, which invariably increases uncertainty and invites corruption. Instead of negotiation as a means to moderate and arbitrate regulation and policy, this results in a tendency towards litigation.

So how do we move beyond tensions like this and create a 'win-win' deal for all?

All parties need to recognise, as a matter of urgency, the inevitable outcomes of the current cycle – the gradual deflation and downsizing of the industry – and the losers: current and future workers, governments, populations, and the mining companies. Such a strategy will need to build on a number of existing initiatives, but do so with much greater cohesion and commitment.

As importantly, agreement will have to be reached on what a successful mining industry looks like.

There must be recognition that mining is an inherently risky and long-term endeavour. For success and the mutual benefit that results, risk needs to be reduced, by all parties, as far as possible. But this needs to comprise more than an enlightened business case. Mining also needs to understand the problems

that government has to address and in so doing make a strategic contribution to wider issues (enterprise development, water, land, education and so on) in an atmosphere of collaboration, not confrontation.

All parties must recognise that trust has broken down. For the sake of Africa's economies and its people, it needs to be rebuilt. ■

For further reading see:



About the authors



President Obasanjo (centre left), Dr Mills and Major General Davis (retired) are with the Brenthurst Foundation and are the co-authors of the recently released 'Making Africa Work: A Handbook for Economic Success'.

From Africa to Country Mining Visions

by Isabelle Ramdoo

In implementing country mining to transform their economies, African countries should foster the development of inclusive supply chains and stimulate upstream production linkages, including by tapping the potential of mining procurement and designing national suppliers' development programmes.



Iron ore loaded trains at the Saldanha terminal, South Africa. Photo: Jbdodane/Flickr

In 2009, the Heads of States of the African Union unanimously adopted the African Mining Vision (AMV), a landmark continental framework to support Africa's transformation agenda, through a "transparent, equitable and optimal exploitation of mineral resources to underpin broad-based sustainable growth and socio-economic development". It aims to do so by using the mineral sector as a key leverage, dispelling the resource curse which had trapped many countries for decades. Since then, numerous African countries (24 so far) have taken a series of initiatives to internalise the framework within their national policy agenda, notably by pursuing a country mining vision (CMV), a process coordinated at the institutional level by the African Minerals Development Centre.

Linkages as a key pillar of the CMV

The socio-economic benefits that can be derived from the creation of value around the mineral sector can be defined through seven core dimensions of linkages, as illustrated in Figure 1. These dimensions are *interconnected*

and *complementary*: to some extent, the effectiveness of developing each one is dependent on the realisation of the other forms of linkages.

Historically, most African countries have dedicated most of their policy reforms to fiscal linkages due to their revenue-generating capacity, in particular during commodity boom years. But this strategy clearly showed its limits, as countries' economic performances were as volatile as commodity prices, making any development strategy vulnerable and brittle. The other dimensions of linkages therefore must be unpacked, as they can certainly provide better and stronger leverage for economic transformation. This rest of this article will emphasise upstream production linkages, looking at the potential of mining procurement to set the basis for supply chain development.

What does it take to stimulate production linkages?

So that production linkages development does not remain wishful thinking, a number of conditions must be met to

Box 1. The AMDC

The African Minerals Development Centre (AMDC) was set up in 2013 to meet the demand for a single, Africa-wide, strategic coordinating capacity for implementing the AMV and reframing thinking beyond mining to encompass minerals for development. It works with governments, public and private sector stakeholders at global, regional, and national levels, to develop integrated solutions across seven key workstreams identified by African governments as central to their needs. AMDC's four Strategic Partners are the African Union Commission, the African Development Bank, the United Nations Development Programme (UNDP) and the United Nations Economic Commission for Africa (UNECA).

address the structural weaknesses that currently affect African resource-rich countries' efforts to drive diversification and industrialisation. Challenges include in particular low labour and firms' productivity and the weak overall competitiveness of domestic supply chains. To stimulate linkages therefore, countries need to:

- *Improve their business climate* to unlock investment. Key hurdles include various border and behind the border barriers that drive up costs and cripple business development; inherently weak industrial tissue in many countries, due to the small size of domestic industries (in Ghana for example, 90% of local businesses are micro-enterprises); a high degree of informality; difficulty in accessing credit in particular for SMEs due to prohibitive interest rates; lack of access to loans due to insufficient collateral; and

significant infrastructure deficits, and in particular the cost of energy, amongst others;

- *Address market size:* By international standards, individual African economies remain too small to attract large investments in supply chain development. In a recent analysis jointly conducted by the AMDC and BGR in West Africa, it was estimated that for the gold sector, the operational expenditure upstream procurement market for four gold producing countries altogether (namely Ghana, Mali, Burkina Faso and Côte d'Ivoire) amounted to US\$2.66 billion in 2015. In another Study for Southern Africa, BGR estimated that South Africa alone had a market of US\$26 billion. Therefore, supply chain development targets regional and global markets in order to attract meaningful investment;

- *Skill up the workforce:* The mining sector is not labour intensive, but it is highly knowledge intensive. However, in many countries, labour productivity remains too low by international standards. Among the skilled labour, there are mismatches as the labour market is disconnected from the rapidly changing technological needs of the mining industries. Furthermore, there is a deficit in the quality of the workforce, today too low for the type of labour required for a knowledge economy; and
- *Set up their National Suppliers' Development Programmes,* to scale up suppliers' capacity, capabilities and competitiveness. This must be integrated into the national industrial policy, including through the establishment of mineral suppliers' clusters, in order to use the mineral sector as the anchor client to stimulate broader industrial development.

Supply chain development: what has been done so far?

In recent years, there has been a proliferation of local content policies in an attempt to stimulate local supply chain development and linkages in the mining sector across the world. Those policies – mandatory or voluntary – have had mixed results, in part because of the disconnect between the regulatory frameworks and initiatives taken at the practical level to implement those policies.

At the State level, governments often expect companies to comply with the rules and inflict severe penalties when companies fail to do so, in the form of prohibitive fines or even loss of licences in the most extreme cases. But there is rarely anything done to stimulate or facilitate supply chain development in industrial policies, for example.

On the side of companies, many run their own local 'suppliers' development initiatives'. In fact, many companies did not even wait for local content policies to develop their initiatives, as these are part of the Corporate Social Responsibility (CSR) initiatives. Newmont in Ghana or AngloGold Ashanti in South Africa are cases in point. But taking a CSR approach is not sufficient to trigger long-term industrial development, although it is necessary to maintain the local footprint and hence the much-needed social license to operate within mining communities. Furthermore, CSR-driven initiatives are rarely focused on 'big-ticket' or critical procurement items, but

Figure 1: The breadth of linkages



instead put emphasis on non-core goods and services, which have a relatively low value-added contribution to the economy (examples include cleaning services, gardening, basic civil works etc.). While critical to the 'local' economy (i.e. close to mining communities), there is certainly more that can be done at the national level for local companies to tap into the bigger procurement market.

Looking at international experiences, countries like Brazil, Chile and Peru hint at how collaborative partnerships at the national level have succeeded in going beyond 'tokenism' into tapping real economic opportunities. In the state of Para in Brazil, for instance, the Government has set up a wide suppliers' development programme in partnership with large mining companies, such as Vale, to facilitate the integration of local suppliers into companies' supply chains. In addition to companies which opened their procurement to local businesses, credit agencies, universities and trade network associations participated, to ensure that all constraints faced by suppliers were duly addressed.

Similarly, in Chile, the Government institutionalised the national suppliers' development programme to encourage SMEs to formally associate with large firms. Partnerships with companies like BHP Billiton were critical in offering dedicated support to local suppliers to meet the requirements of the mining industry. The programme had a global outreach to address the limits of Chilean market and to promote the internationalisation of Chilean SMEs.

Peru went a step further and developed an innovative programme of excellence. The Programme was designed to put challenges to local suppliers to identify and find innovative solutions and approaches to resolve High Value Challenges, i.e., existing operational problems, inefficiencies or anomalies faced by mining operations. As a result, interested and capable suppliers were offered the opportunity to design and test these solutions for the industry before being awarded contracts.

The way forward: designing national suppliers' development programmes

Experience has shown that collaborative partnerships framed within coherent and consistent policy frameworks have more chances of success than individual initiatives, provided the conditions to do business are conducive. In most African resource-rich countries, this remains a weak point.

Yet such national initiatives are necessary to allow for the development of robust horizontal linkages, in particular between local suppliers/ SMEs and tertiary institutions, innovation hubs (to foster product and process development) and R&D centres (to encourage the development of new processes and products), critical to move up the value chain and create world-class suppliers. Furthermore, they create the space for spillovers by not only serving the interests of the mining industry and related industrial activities, but also importantly, by acting as a springboard for other manufacturing activities. Inputs and capabilities used for mining supply chains often have wider industrial applications and therefore can feed into other economic sectors. For example, while quick lime is a critical input for the gold mining sector, limestone is also used in the construction sector and for the fabrication of glass, ceramics etc. Similarly, the capabilities needed to perform civil works on construction sites can be transferred to the light-manufacturing sector. What is needed is to support industrial clusters around mining supply chains, to unlock this potential.

To be successful, a national suppliers' development programme must contain two distinct but complementary and mutually reinforcing elements, whose objectives are to enable suppliers and their ecosystems to deliver world-class products and services and meet changing competitive requirements.

First, the programme must ensure it continuously empowers the workforce, to address skills gaps, mismatches, and other issues that affect labour productivity. This is crucial to ensure employability of the workforce as the nature of jobs may change in the future, due to technological progress. Countries that have made this pillar a priority in their National SDPs include Singapore (e.g. the Local Industry Upgrading Programme) and Malaysia (e.g. Penang Skills Development Centre).

The second pillar must design dedicated support to suppliers: for example, new or mature suppliers may not have the same challenges and therefore require specific supportive incentives, instruments and mechanisms. Key features of this pillar include the availability of procurement information; the creation of suppliers' networks; matchmaking and speed dating services between buyers and sellers; technological upgrading and training

services; support to quality standards; support to new products and prototype development etc. It must also be able to forecast future mining needs by providing market intelligence regarding technological changes and the evolving needs of the mining industry, to allow local suppliers to adapt their products accordingly.

Resource-rich African countries are therefore encouraged to set up national suppliers' development programmes to support the development of supply chains. These should be established through an inclusive, multi-stakeholder approach, in order to ensure that initiatives are cross-cutting and most efficiently serve the needs of a variety of industries. They must be rooted in the overall trade and industrial policy to ensure coherence and consistency not only at the national level, but also, importantly, at the regional and international level as policy space tends to erode with international trade partnerships.

Finally, market size matters, and individual countries may unfortunately not be sufficient on their own to attract investments into supply chain development. Supply chains need scale to be competitive and sustainable. For this reason, countries need to ensure that their local suppliers can access regional and international markets, including by connecting to regional and global value chains. And for this to work, regional coordination is a necessary condition, to ensure that other regional partners develop complementary specialisations. ■

Reference:
BGR (2016), *Linkages in the Southern African Mining Sector: Domestic Procurement Challenges and Context. Working Paper.*

About the author



Isabelle Ramdoo is Senior Linkages and Investment Advisor, African Minerals Development Centre.

When local content requirements meet technological innovations

by Joe Amoako-Tuffour

The robots are coming to the mine nearest you. Technological innovations are shaping our future and changing the old way of doing things, including the productive systems in resource extraction.

Technological innovations in the mining industry are increasing rapidly, touching on many facets of the industry, from surveying, exploration, production, processing and data analytics. Investments in highly automated equipment and machinery are changing the mix of physical capital and labour in the production process as well as the environmental footprints of the industry.

At the 2015 West Africa Mining and Power Conference, the emphasis was on the need for mining firms to adopt new technologies in order to improve operations efficiency and to stay competitive. The Mineral Policy of Namibia acknowledges that the sustainability of the industry will be determined by the ability to maintain the use of new and efficient mining technologies.

Promoting employment and skills development

One of the key pillars of local content strategy increasingly adopted by resource-rich economies (RREs) is to promote direct job creation. As identified in an eight-country study across sub-Saharan Africa undertaken by the African Center for Economic Transformation (ACET), local content legislation and regulations typically set employment targets and quotas, an affirmative action policy with which industry must comply. Ghana and Nigeria have dedicated laws to that effect. Ethiopia, Mozambique,

and Namibia have varying policies and provisions which oblige mining companies to submit employment and training programmes for nationals as part of mining license applications.

At a time when technology is shaping the mine of the future, how are the innovations informing public policy in the design of local content strategy? Are innovations taking place on the blind side of local content design and enforcement? What should be the direction of local content strategies in promoting job creation?

Demand for technological innovations

What is driving the rapid adoption of technology in mining? First, depleting reserves means exploration must reach for greater depths. Greater depth means more intensive data analytics and greater safety needs. Second, rising labour costs, due in part to the influence of labour unions and to the overall cost-push effects (due to declining easily accessible reserves), compel modernisation and greater operational efficiency.

Clearly, there is an understandable need to improve efficiency, minimise mine accidents and health hazards, and to improve data analytics. Moreover, at the firm level, employment targets and quotas introduce cost bottlenecks and inflexibilities in cost structures.

From Ghana to Zambia, mining firms are required to submit to

regulators annual reports on how the employment affirmative action plan is being implemented. A capital-intensive productive system cuts down on this need.

The employment effects of increased technological innovations

The intensification of the application of technology in mining also means that the direct mining employment effects, at least in the conventional sense, are sharply on the decline. In South Africa, Namibia and Ghana mining companies are spending less and less on low and semi-skilled labour.

Generally, technology is making mining less and less labour absorbing, raising questions about the primacy of the employment objective of local content legislation, making it less viable and increasingly difficult to enforce.

For example in Zambia, the government's calculation that "investment in the mining industry would lead to more output and that additional output would mean an increase in Zambian employment" is becoming less and less a reality. While every additional 10 tonnes of copper extracted created four jobs in the 1960s, currently it generates only one more job as a result of the accelerated capital intensity and technological innovations in copper production.

In Namibia, the Employment Equity Commission in its 2014/2015 Annual



Mechanical shovel being assembled on site at the Rossing Uranium mine. Photo: World Bank, Flickr

Report observed that mining sector workforce recorded a 12% decline between 2014/15 and 2013/14 despite the rise in production.

Moreover, with the exception of South Africa, most of the labour-substituting intelligent inputs (machines) are being built elsewhere and serviced often by itinerant technicians with a limited involvement of local technical personnel. The innovations are further undermining the status and force of the conventional mine worker, who is not likely to be the beneficiary of skills and technology transfer because of the low levels of education.

It is not unreasonable to ask: Will the efficiency gains from technological innovations translate into revenue benefits to the resource rich economy? Not necessarily. Unless matched by increased productivity and increased mine life, increased capital spending may further erode tax bases if 1) country tax systems continue to provide generous capital cost deductions, and 2) country tax systems are unable to audit transfer pricing schemes often associated with the acquisition of capital goods and technical services from affiliates overseas.

These raise a number of practical questions.

- Are technological innovations occurring on the blind side of conventional local content

strategy? If so, how should this inform governments' approach to local content legislation and regulations?

- How can resource-rich countries develop the local workforce within small and medium enterprises and make them adaptable to the rapid pace of technological innovations?

What should governments do?

The future may not lie in the legislation of direct employment targets or in setting quotas. Intensive production systems may have shifted the potential for job creation into upstream activities within the supply chain. The future of employment lies in a new kind of workforce beyond unskilled and semi-skilled operations. Opportunities will require medium to top-level technical skills to operate and manage high-tech machines and technological processes along the entire supply value chain.

As the bulk of resource companies' spending shifts to non-labour goods and high technology services, future local content in strengthening linkages may lie more in the procurement of goods and services and the engagement of SMEs in the supply chain than in direct mine employment. As spending shifts to consumables and technology-embodied capital goods, the locus of local content requirements has to change.

Building a local workforce and the technical capacity of local institutions to make them adapt to and embrace efficient mining technologies requires considerable investment and continuous skills development. These are often beyond the capacity of individual mining companies, certainly beyond industry voluntarism, and beyond individual mining economies. Are regional institutes with strong government-industry collaboration the right model for skills development and technical capacity training? ■

About the author



Dr. Joe Amoako-Tuffour is Director of Research at the African Center for Economic Transformation.

Five key linkages to enable resource-led growth

by Mark Beare

A robust governance framework in resource-rich countries to promote the linkages to be strengthened for sustainable and diverse economic development is critical to realise the benefits from resource-led growth.

Many countries are endowed with rich but finite natural resources that can be extracted and monetised to promote economic development. The subsequent discovery of natural resource reserves and their extraction does not necessarily lead to higher economic growth, nor does it necessarily translate into better human development outcomes. Weak linkages with a country's broader economy can lead to the creation of an 'enclave economy', disconnected from other sectors, making some macroeconomic indicators look better but without creating jobs or broad-based prosperity.

The resultant skewed currency and fiscal/human resource allocation along with self-enrichment of political elites (perverse rent seeking) may lead to what is known as the 'natural resource curse' – exhibited by the failure of many resource-rich countries to benefit fully from their natural resource wealth, and for governments in these countries to respond effectively to public welfare needs.

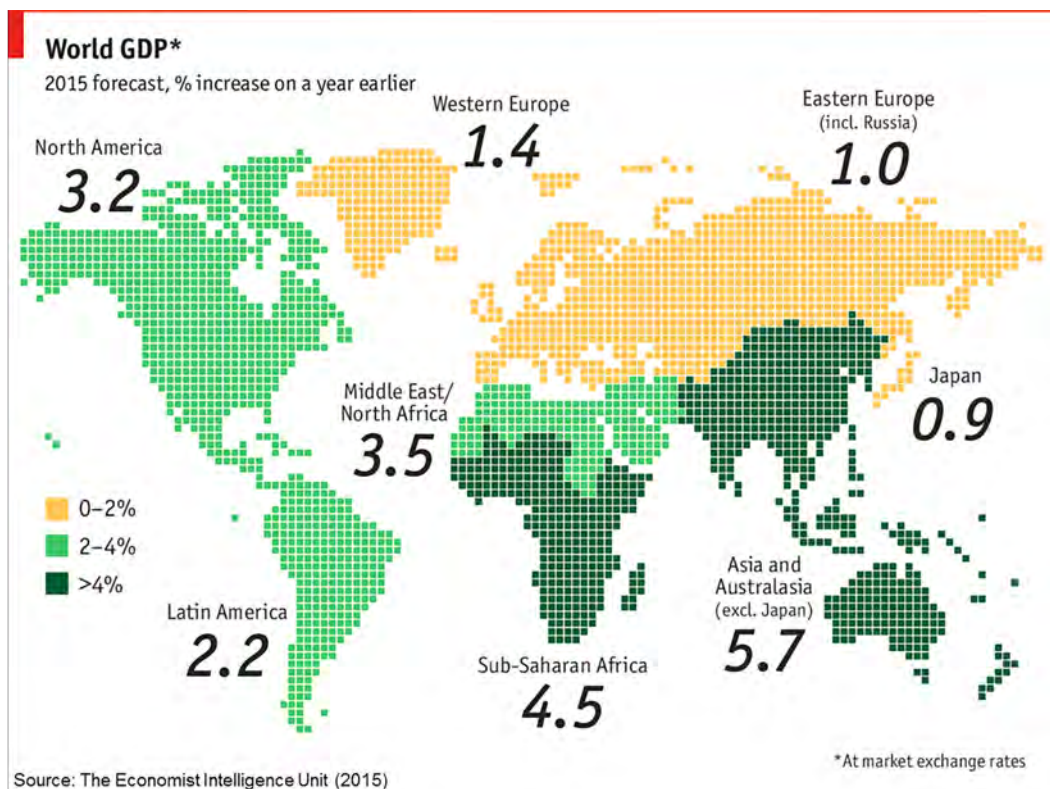
As shown by Figure 1, sub-Saharan Africa was forecast to have the highest growth rate in 2015 of any region other than Asia. Nonetheless, apart from Congo and Zambia, which have medium human development indices, many African countries

still exhibit low human development indices, as defined by the African Development Bank (see Table 1). For some of these countries, it is their natural resources base – and the relatively high commodity prices that prevailed until 2013/14 – that help to explain their recent high growth rates.

To avoid the natural resource curse, economic linkages between the extractives sector and the rest of the economy need to be strengthened and managed to minimise unbalanced economic development. To benefit from resource-led growth, policy, legislative and regulatory frameworks should be both pro-growth and pro-development, designed to mobilise and integrate human, financial and technical resources. This may include public-private collaboration to harness investments in human resources, infrastructure developments and capital investments, to enable other economic sectors to leverage new opportunities created by a growing extractives sector, such as hotels and agricultural output, to meet the needs of the expanding extractives sector.

Investors look for predictability of fiscal, regulatory and related governance frameworks, to reduce uncertainty and project risk. Good governance is generally regarded as

Figure 1: Sub-Saharan Africa has average growth of 4,5%



the prerequisite and involves coordination among diverse government ministries and regulatory bodies that can develop and implement policy relevant for linking the resource economy to broader economic development.

Successfully linking natural resource extraction within a robust and transparent governance framework can enable a low-income economy to use natural resources as a platform to 'jump' to a path of higher and sustained growth, catching up with middle-income peers and creating an industrialised, diversified economy, as depicted in Figure 2, in Box 1, with reference to Tanzania.

Table 1: Growth versus Human Development (AfDB 2015)

Low human development (below 0.55)	Real GDP growth(%) (greater than 6%)
Chad	9.0
Congo, Dem. Rep.	9.0
Cote d'Ivoire	7.9
Djibouti	6.0
Ethiopia	8.5
Kenya	6.5
Mozambique	7.5
Niger	6.0
Rwanda	7.5
Tanzania	7.4
Uganda	6.3

Box 1: Natural resources as a growth accelerator

As natural resources are finite, they should not change the developmental goals of the country but rather be used to enhance the development process by enabling the economy to 'jump' to an accelerated growth resource-led path. The enablers involve strengthening the linkages to enhance the extractive sector's role in the broader economy.

Figure 2 depicts how some factors, labelled 'Enablers', can provide the opportunity for a country to 'move up' to a higher growth rate, 'keep up' or sustain this higher growth rate, and 'look up' to use the next enabling factors to meet long term development targets.

To achieve the 'natural resource jump', it is necessary to concurrently secure requisite investments in human capital, physical and economic infrastructure, and new downstream industries, and increase trade in the commodities and services produced. This requires the country to 'step up' to the challenges and 'start up' the resource economy to enable extraction and capture rents. After the country has 'caught up' and 'moved up', all human, physical and financial capital developed primarily for the natural resource sector should be used to leverage growth in other sectors, to create further jobs and wealth.

The increased pace of learning-by-doing enabled by skills and

technology transfers and augmented by, *inter alia*, amortised capital lowers the overall costs of production in the relevant sectors, and the country is now in a position to 'keep up': it can consolidate its development and anchor itself in the relevant global commodity value chains. Economic diversification also translates into additional revenues that should be invested in R&D to leverage the new skills sets, goods and services

needed to develop new technologies, such as new mining methods, that improve efficiency and reduce costs. Continuous improvements through research and innovation should be promoted, as the country continues to 'look up' to identify the next growth-accelerating jump that may take the economy to the next aspiration level, such as from 'middle income' to 'high income' status.

The key linkages to enable the resource 'jump' are the following.

1. Fiscal linkages: capture resources rents and use them strategically

A country's fiscal regime consists of the laws, regulations and/or individual agreements that determine the channels through which resource revenues will accrue to the government.

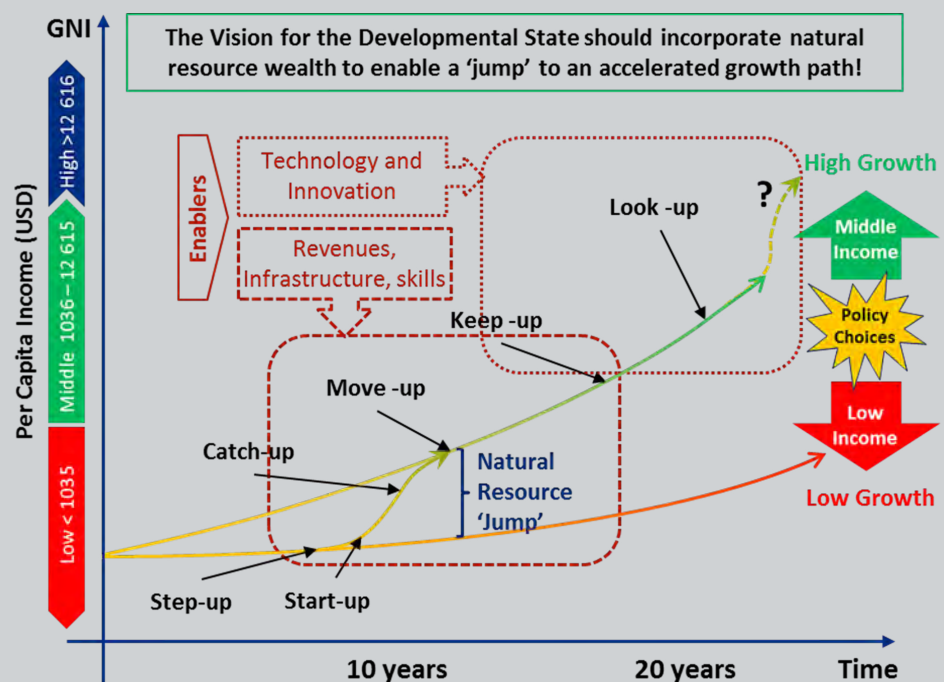
The government needs to balance its interest in maximising its income with investors' need to be confident of getting a worthwhile return in a risky environment. Governments also need to use the revenues that accrue to them strategically to boost the wider economy. It may be prudent to save some revenues, either with a view to providing stability in the event of future resource price volatility or making overseas investments to provide returns for future generations.

2. Spatial linkages: critical infrastructure to enable resource extraction

Extractives companies typically need to invest in infrastructure such as pipelines, electricity generation plants, roads and ports, and governments often contribute significant funding towards some components of the required infrastructure.

Investments in new infrastructure should be carefully planned, with governments working in partnership with extractives

Figure 2: Natural resources as a growth accelerator



companies. Such investments can be designed to maximise benefits to other economic sectors – for example, electricity generation plants that also serve local villages, or roads that improve the functioning of local markets.

3. Backward linkages: development of suppliers into the resource sector

Backward linkages involve extractives companies employing local people and procuring goods and services from local companies. This can bring significant social and economic benefits, with a multiplier effect of wages and revenues spent locally providing a further boost to local economic development. From the extractives company’s perspective, it can help to secure their ‘social licence’ to operate. The success of an Local Content/Supplier Development (LC/SD) strategy depends on the political will of governments, the willingness of the private sector to engage, and the feasibility of building the capacity of the local economy to meet the extractive sector’s demands for particular goods, services and types of labour, in terms of both quantity and quality. LC/SD policies could include the government funding training institutions, providing incentives for extractives companies to provide ‘on the job’ training and development agencies to enable local SMEs to access the financing and support to grow.

4. Forward linkages: resource utilisation for further value addition

Forward linkages involve boosting the broader economy by processing the natural resources to produce intermediate or finished goods, rather than exporting them in their raw state. This can help to retain more of the natural resource wealth in the country, as well as promoting job creation, industrialisation and economic diversification. However, it has generally proved counterproductive simply to obligate investors to beneficiate raw materials in country as part of their extraction licenses, as many are not forward-integrated. Instead, governments can provide fiscal instruments to incentivise investors to support beneficiation, even if they do not invest themselves, and enter into strategic public-

private partnerships to boost downstream industries. Such fiscal incentives should be used with care, however – they are complex, costly to administer, and run the risk of unintended consequences.

5. Knowledge linkages: sector skills development and technology innovation

Success in creating other kinds of linkages is closely related to success in creating knowledge linkages. Local workers and companies often lack the knowledge to service the needs of extractives companies. Technology imported by extractives companies is often not shared with or taken up by local companies. The benefits of investment in creating knowledge linkages are often not immediately politically visible, but they can be significant in the longer term. New technology, innovation and research and development brought in by foreign extractives companies can become an essential input into a country’s industrial growth agenda, if mechanisms are put in place to transfer the technology and related skills to the host countries.

Conclusion

Whilst these linkages are not discrete or obviously tangible channels, they help to explain how the various sectors in the economy can supplement each other to produce additional benefits beyond the direct impacts expected from the extractives sector. In practice, accountable line ministries should lead the interventions for strengthening of a particular linkage, often with the facilitation and cross cutting support from other ministries. ■

The author wishes to acknowledge the inputs of the following co-authors of the original paper from which this paper has been drawn, namely Alan Roe, Nicholas Travis, Esméralda Sindou.

Indicative policy instruments and their intended outcomes are outlined in the table below:

Linkage	Policy Instrument	Expected Outcome
Backward	Local content law/regulations	Growth in investors to increase value add in country through, for example, joint ventures
Forward	Export regulations and value addition rebates	Growth in downstream investors through incentives to upstream producers to earn value addition rebates
Spatial	Local economic development incentives	Growth in project infrastructure investments (such as roads, water reticulation, waste management) enabling local economic development
Fiscal	PSAs, Resource Rent Taxes and Fiscal Rules	Capture scarcity rents and promote prudent spending and efficient allocation of resources (eg infrastructure, education etc.) along with savings for future generations (eg sovereign wealth fund)
Knowledge	Technology incentives	Public Private Partnerships to promote domestically-based R&D and applied innovation to develop new technologies

About the author



Mark Beare, Oxford Policy Management (OPM).

Blueprints for sustainable industrialisation in West Africa – lessons from resource-rich Nigeria

by Amy Jadesimi

Sustainable industrialisation is the key to unlocking inclusive prosperity in West Africa. Nigerian companies like LADOL provide valuable examples of how the private sector can drive development in these resource-rich, high-growth, low-income markets.

Over 160 years ago the Industrial Revolution began in Britain and radically transformed the British and then the global economy through the deployment of technology. The world is now going through a similar period of change – but this time the engines of development, notably in resource-rich countries, will be high-growth, low-income countries.

The SDG framework

The 2030 Agenda provides a roadmap that indigenous private companies can use to drive prosperity in low-income high-growth regions of the world. The Sustainable Development Goals (SDGs) all set parameters that multinationals in the West can follow to

achieve SUSTAINABLE globalisation, that is, globalisation that leads to mutual prosperity for the multinational and the nations in which it operates.

The SDGs are empowering because they apply equally to the challenges all countries face, and they give us all a blueprint to guide us in overcoming them. The SDGs demand dramatic changes in the global deployment of capital, since an estimated US\$1.4 trillion must be invested annually towards achieving the Goals. The Goals also demand that governments use their regulatory power to create policies and institutions that support their local private sectors, which in turn could lead to the local and international private

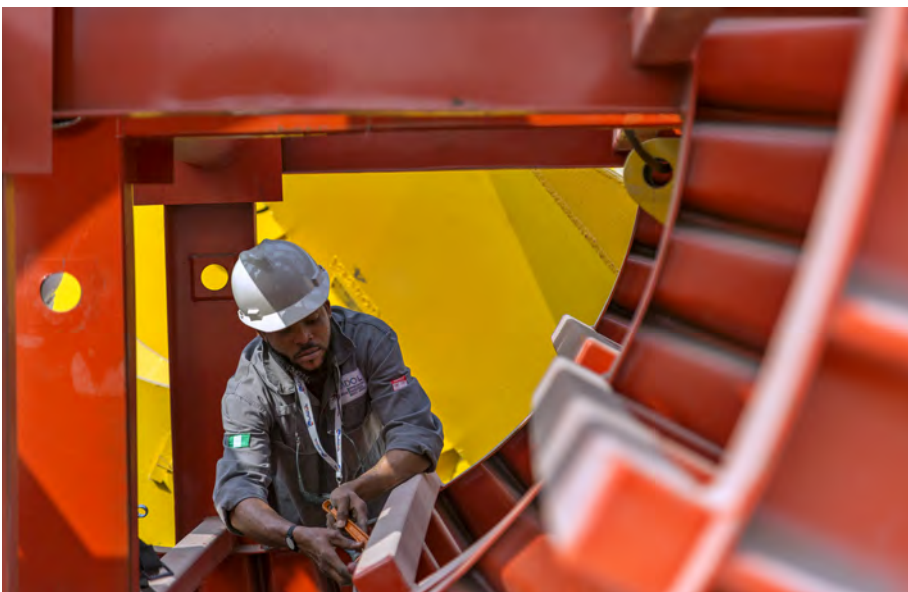
sector funding 50% of this US\$1.4 trillion funding need.

The Business and Sustainable Development Commission (BSDC) launched a report at Davos in January 2017 that eloquently and scientifically lays out the business case for the SDGs. By sustainably pursuing business opportunities in just four sectors (energy, urbanisation, healthcare and agriculture) the private sector will add US\$12 trillion to global GDP by 2030.

Looking to Nigeria

The UN estimates that by 2050 Nigeria will be the third most populous country in the world, with the majority of its population under the age of 30. Africa will be the only continent remaining where the working age population is growing and most of that demographic will already be in the continent. This demographic windfall guarantees private sector investors that move into this market now a place in the fastest growing market in the world, as opposed to the choice many of them are currently making to double down on investments in regions where growth is slowing.

As the largest country in Africa, by population and GDP, Nigeria clearly has the potential to be the engine of growth for the entire continent. However, Nigeria is also one of the most complicated and commodity export-dependent economies in Africa. Quickly getting Nigeria on the path to widespread sustainable industrialisation through the empowerment of its legitimate private sector companies is the key to finally unleashing its full potential.



LADOL employee working at the Free Zone. Photo used by permission.



Aerial view of the base of the LADOL Free Zone, Lagos, Nigeria. Photo used by permission.

Nigeria's relatively stable government under President Buhari is restoring confidence in the rule of law, reinforcing private sector competition and squashing corruption. Its private sector now, more than at any other period in the last decade, has a platform for generating the level of sustainable industrialisation needed to carry the country closer to G20 status and spread prosperity across the West Africa region, beyond the export of raw commodities.

Any approach to sustainable development needs to provide more members of society with incentives to participate and work hard in order to pump new life into the local private sector. This could ignite a chain reaction where prosperity spreads to more of the population, the government collects more taxes, and investment from the international business community pours in again.

Change requires bold actions: the experience of LADOL

At LADOL we are providing the highest profile and most tangible example of how the real private sector can invest, create value and drive sustainable industrialisation. The success of LADOL has also helped to encourage government and civil society to enforce and create policies that foster a competitive business environment, suitable for long-term investment. The company's aim is to build a blueprint

for sustainable industrialisation that integrates creating jobs and upskilling the local workforce, whilst increasing industrial capacity and localising supply chains through infrastructure and facilities development and operation, 24/7.

For over a decade LADOL has been developing the largest private, locally-owned and operated industrial Free Zone in Nigeria. The Free Zone was built up out of a disused swamp inside the busiest port in West Africa. It is now supporting the most complex oil and gas-related projects carried out in Nigeria. The facilities in the Zone include a fully integrated logistics base that will save the offshore oil and gas sector US\$1 billion per year by offering access to high quality services and labour locally. LADOL is also home to the largest shipyard in West Africa, which will generate 50,000 direct and indirect jobs in the next decade.

In the fourth quarter of this year, LADOL will welcome the Total Floating Production Storage and Offloading (FPSO) vessel for the Egina oil field. This 380 meter-long vessel will be the largest ever to berth in West Africa and the first to be partially integrated onshore in Nigeria. This project will dramatically increase the local demand for manufacturing and engineering – as integrating vessels and oil rigs locally will shift the centre of gravity for large projects in Nigeria, including the

upcoming Bonga South West, another deep offshore oil project. This shift will be driven by pure economics; simply put, using local manpower and facilities for engineering and manufacturing will save the industry billions of dollars in development and maintenance costs over the lifetime of the oil block.

The founders of LADOL are now focused on diversifying out of the petroleum sector and leveraging the infrastructure and know-how in the Zone to attract and support a range of industrial companies in numerous sectors from agri-processing to car and aviation manufacturing. LADOL will become the template of how sustainable industrialisation can be done across West Africa. LADOL clearly shows that the issues encountered in many established markets, from lack of infrastructure to corruption, can all be overcome through a combination of committed local long-term investment and know-how, as well as enabling laws and policies.

Local empowerment

Breaking ground in 2018, LADOL's Upskilling Academy will provide a lifelong learning platform for Nigerians, offering access to a range of vocational training and development programmes for graduates to executives. This venture will be supported by private companies and non-governmental groups who will be able to set up their own schools

within the academy. By working with local and international organisations to grow skills in country, the private sector is ensured access to a skilled, cost competitive, sustainable work force – creating shared value, which is more important than ever.

Private sector-led investment in industrialisation and local talent has knock-on effects, for example creating space in the market for new ancillary businesses. In high-growth, low-income countries like Nigeria, investment from private sector actors has the potential to make the most impact by more efficiently increasing local participation in the economy through democratisation of access to the means of production. Over time the economic divide between rich and poor countries will have a chance to close.

It is important that sustainable industrialisation is driven from within individual countries. As Daron Acemoglu and James A. Robinson describe in *Why Nations Fail*, it is imperative political environments are established in a way that allows inclusive economic institutions. Such change requires self-motivation. In Nigeria, this has not always been the case; LADOL's path hasn't always been clear or easy. Therefore, the private sector must work with local government to create a framework where inclusivity is encouraged and rent-seeking behaviour is eliminated.

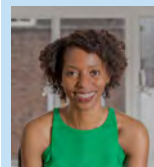
Role of the international community

Commitment to sustainability must extend to international actors also. Multinational corporations, international governments and world citizens all have a role to play in Africa's development but their outlook must be long-term. For example, by complementing local private sector partnerships and setting mutually beneficial contracts, multinationals can realise higher profits while stimulating growth where it is needed most.

Get ahead

While countries like Nigeria still require a lot of work, the potential for local and international business is clear. The speed at which companies and governments embrace sustainable industrialisation and globalisation, led by the private sector, to stimulate prosperity in high-growth, low-income, resource-rich countries, will directly influence the time it takes to alleviate widespread poverty. Now is the time for companies in West Africa and beyond to take the first mover advantage and ensure that they are at the forefront of a US\$12 trillion economy that will also save the world. ■

About the author



Dr. Amy Jadesimi is the Managing Director and CEO of LADOL, a free zone and multi-logistics services base in Nigeria. Beyond LADOL, Amy is on the Prince's Trust International global advisory board, a founding commissioner of the *Business and Sustainable Development Commission* and a *Forbes* contributor. She has been named by the *Financial Times* in July 2015 as one of their Top 25 Africans to watch.

Local communities can reap better benefits from mining if market and fiscal channels are strong

by Punam Chuhan-Pole and Andrew L. Dabalen

Transforming resource wealth into well-being remains an important issue in Africa's resource-abundant economies. Most benefits from extractives in Africa are likely to flow through national treasuries. But do local communities situated close to extraction sites gain any additional benefits?

Evidence from the boom in large-scale gold mining in three countries in Africa suggests that mining communities experience on average positive, but limited welfare gains in the near term. The benefits that come from opening a mine (or mines) are mostly transmitted through the normal functioning of markets, primarily through labour and land.

The upswing in commodity prices that began in 2000 fuelled Africa's boom in extractive commodities (oil, gas, metals, and minerals), lifting economic activity in the region's resource-abundant countries. The resource boom, however, was less successful in benefitting the millions of people living in poverty in these countries. Furthermore, the low price environment that has characterised the end of the commodity price super-cycle is putting significant pressures on the budgets of commodity exporters. Nevertheless, the contribution of the extractive sector to exports and fiscal revenues in commodity-rich countries is expected to remain large.

Thus, the issue of how to transform resource wealth into economic development and higher well-being continues to be compelling in the region. Although most benefits from extractives in Africa are likely to be felt through revenues to the central government, there is growing interest in understanding the impact of the resource boom on communities living close to mining centres—namely, whether welfare improves with proximity to a mine.

The benefits (or costs) of large-scale extractive activities flow to local communities through market and fiscal mechanisms and the environment

Extractive activity can affect local communities through at least three broad channels: market, fiscal, and environmental.

The market channel works when the incomes of members of the local communities rise because they obtain employment with local mining firms, command higher wages, or supply them with goods and services through backward linkages with other sectors. In addition to these direct benefits, local communities can also benefit indirectly from the presence of extractives through infusion of dynamisms into previously low-activity local factor markets, such as land and credit markets.

Resource activity can translate into a revenue windfall that eases the hard budget constraints of local governments. These additional resources can be welfare improving if they are used to provide more and/or better quality of much-needed public goods, such as transportation, modern power, water and sanitation, education and health. These positive effects are by no means guaranteed, and depend on well-functioning local institutions.

Extractive activities generate well-known negative externalities. Foremost amongst these is environmental degradation and pollution, which can adversely impact the health of local populations, the livelihoods of workers, and agricultural production.

The local effects of mining show gains in nonfarm activity, but mixed outcomes for child health

A robust analytical approach (one going beyond descriptive statistics) is needed to evaluate the benefits—in terms of occupations, asset accumulation, access to infrastructure, child health, etc.—flowing to mining communities.

One such approach is to consider mining as a quasi-experimental event, where the areas in the vicinity of a mine (described as a distance cut-off, district, municipality, region)—that is, the “treatment” areas—can be viewed as benefitting from the opening of the mine and areas further away—that is, the “control” areas—as not benefitting. A difference-in-differences analysis is then applied to compare welfare outcomes in “treatment” and “control” areas. The first difference is the change in outcomes in treatment areas—comparing the benefits before and after a mine starts production—while the second difference is the change in outcomes in control areas. By obtaining the difference of the differences, the size of the benefit is quantified.

The analysis of large-scale gold mining in three African countries finds that mining activity has impacts on individuals living close to a mine or in a mining district. The size of these impacts varies across socioeconomic outcomes.

A notable result is that there are incipient signs of structural transformation—that is, a shift toward wage and nonfarm activity—associated with mining activity, especially for countries where gold mining is more established. Employment in nonfarm occupations such as services, mining and manufacturing rises, while that in agriculture declines.

The expansion into nonfarm employment opportunities is particularly striking for women. In some countries, estimates of the increase in the probability of women living close to a mine and working in sales and services range from 17 percentage points to as much as 30 percentage points; and estimates of the decline in agricultural participation range from 10 to 20 percentage points. Proximity to a mine also raises the likelihood of working throughout the year for women. Where wage data are available, there is evidence that total household wages increase in mining communities, with larger gains in women's wages.



Community health worker documenting the weight and growth of children at the Marechal Health Centre, Kinshasa, DRC. Photo: World Bank Congo EDIT002

Amongst other dimensions of welfare, households living close to a mine also enjoy a higher likelihood of owning or having access to assets such as improved flooring, radios, and cars. Results of improved access to adequate infrastructure are weak, however, in some instances due to migration into mining communities. One area of improvement is the higher likelihood of a private toilet facility for households close to a mine.

An important element of welfare is child health. Mining activity can affect children's health in different ways. On the one hand, improvement in household income can translate into better nutrition and health care. On the other, environmental degradation can adversely affect health status, including diarrhea, cough, and cognitive development. Overall, the local effects of mining on child health are mixed and far from uniform across countries. For example, infant mortality and the prevalence of cough decline in some countries, but not all; a decline in stunting and diarrheal disease is not observed across all countries; and the incidence of underweight increases in some mining communities. The empirical analysis finds that improvements in access to health care yield better child outcomes.

Policies and interventions to achieve better outcomes for local communities

Overall, the evidence points to positive but modest welfare benefits for mining communities in the near term. The benefits mostly emanate through the market channel, as the size of fiscal inter-governmental transfers to local communities has been limited. Market and fiscal channels will need to be strengthened if local communities are to capture greater benefits.

Local content laws are seen as a mechanism to enhance market effects by deepening backward linkages. Although these measures are becoming widespread, they have yielded mixed results to date. To improve benefits to local communities through these local content programmes, governments may be well advised to focus on improving business conditions, such as greater access to affordable and reliable power, better transportation services, access to finance, and regulatory reforms, so as to facilitate linkages between mines and the local economy.

There is considerable potential to improve local welfare through larger intergovernmental transfers that can provide resources to local governments to invest in basic infrastructure and in human capital development. This in turn can help to lift

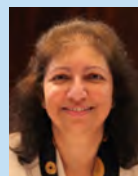
worker productivity, improving the prospects for deepening market linkages of the mining activity. Of course, the quality of governance at the local level—that is, the capacity of bureaucrats and policy makers to deliver public spending programs—will be critical to unleashing these benefits.

Through corporate social responsibility (CSR), mining firms have directly invested in community development: for example, building schools and health clinics. The mixed results of CSR are shifting attention toward supporting more sustainable projects that can help diversify the local economy of mining communities and improve the long-term prospects of these communities.

Strengthening the market and fiscal channels so communities can benefit from a boom in extractive activities will not be enough. As noted earlier, mining can cause severe, long-term environmental damage, which can be injurious to health and livelihoods. The negative externalities of mining need to be understood, minimised and carefully managed so that local communities are not left to fend for themselves, especially once the mining boom is over and mines have closed. ■

This article is based on Chuhan-Pole, Punam, Andrew L. Dabalen, and Bryan Christopher Land, 2017, "Mining in Africa: Are Local Communities Better Off?" African Development Forum series, Washington DC: World Bank.

About the authors



Dr Punam Chuhan-Pole is Lead Economist in the World Bank's Office of the Chief Economist of the Africa Region.



Dr Andrew Dabalen is Practice Manager in the World Bank's Poverty and Equity Global Practice.

<https://openknowledge.worldbank.org/handle/10986/26110>

Between global and hyperlocal: A territorial approach to partnerships in mining

by Alfonso Medinilla and Karim Karaki

The transformative nature of mining calls for an integrated territorial approach to multi-stakeholder partnerships and a better task division between companies, authorities, civil society and development partners.

The past few decades have seen a rapid rise in the scale of mineral extraction in Africa. In the 1980s and 1990s, the sector saw a rapid liberalisation, creating opportunities for primarily western multinational companies to invest in large-scale mining, and building up the expectations that countries might use their mineral wealth for national development objectives. In the early 2000s, as mineral and oil prices surged, Africa experienced a new mining boom. New large-scale operations were set up across the continent, and exploration and discoveries attracted new investors from a range of (emerging) economies such as China, India or Brazil.

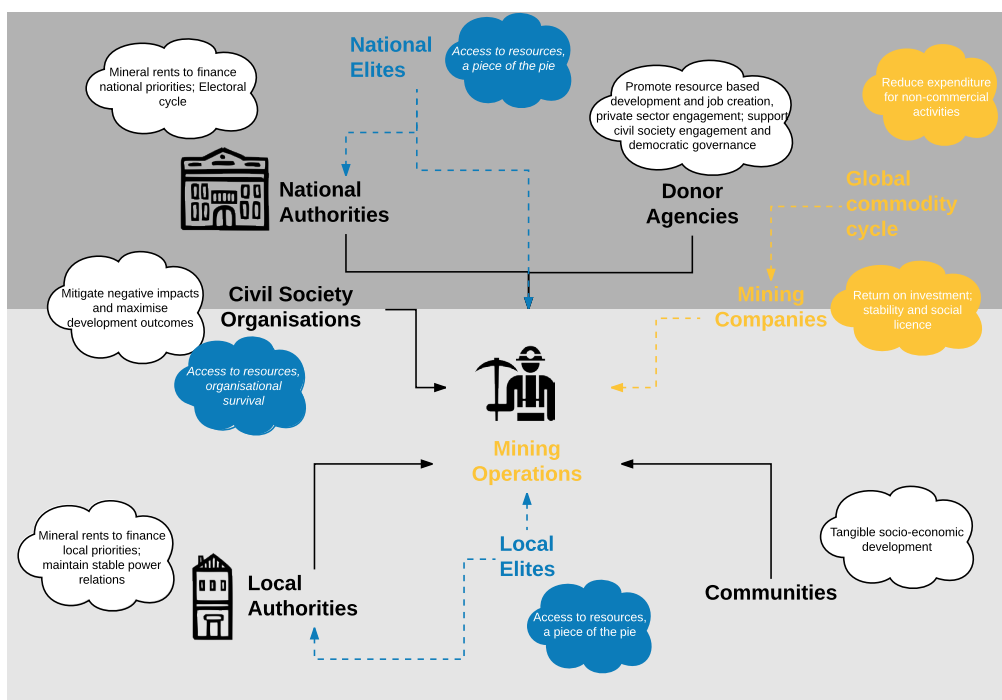
The surge and subsequent recent drop in mineral prices have given countries and companies a taste of the massive economic potential of mining in Africa, yet it has also revealed many of the structural difficulties of mining in contexts of weak institutions and highly informal forms of governance. Price volatility means that companies and governments are faced with towering expectations they often cannot meet; corruption and opaque deals are commonplace, and local development impact is often more elusive than was assumed. This then

leads to tensions and potential conflict between companies, communities and authorities over access to and management of resources, environmental degradation and stalled development in general.

The 2030 Agenda renewed the interest in and expectations on private sector actors as vehicles for change and development. In extractive industries, policy makers see opportunities for partnership in a variety of sustainable development goals (SDGs), particularly those that engender economic development, job creation, industrialisation and infrastructure development (SDGs 1, 8, 9), but also environmental sustainability (SDGs 6, 7, 13, 15) and social inclusion (5, 10, 16). Multistakeholder partnerships in line with SDG 17 are similarly seen as the way forward in bridging narrow business interests and broader national and global development objectives.

The burning question is how can such partnerships work and deliver in a sector as prone to opposition, competition, and elite capture as mining?

Figure 1. Examples of interests and expectations surrounding mineral extraction



Source: ECDPM.

Understanding complexity: interests and expectations

In theory, the extractive sector can create jobs and growth; support research and development; improve infrastructure over long time horizons; and lift entire regions out of isolation. Between theory and practice, however, lies the difficult challenge of understanding and dealing with context.

Mining takes place at the interface between the global and the hyperlocal. Resource and mineral markets are fundamentally global, and the capital intensive nature of mining activities means that several of the big mining companies generate global revenues that far exceed the GDP of (some of) the countries they operate in. At the same time, a mine is almost always a local operation. The benefits and immediate effects of mining are therefore by definition unevenly spread. Every mine also touches a wide range of actors, at every level, each representing distinct interests and priorities, and each coming with a different set of expectations on what benefits and change extractive industries will bring, as illustrated by Figure 1.

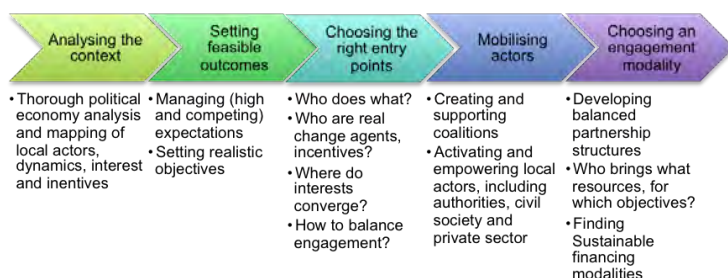
Understanding complexity is therefore critical to avoiding a cycle of unrealistic assumptions, unmatched expectations and, ultimately, opposition and conflict. Mining companies often find themselves lost in translation, targeted by competing demands and expectations from all sides, and having to 'speak different languages' to a myriad of actors at every possible level.

Extractive industries are home to a wide range of professional communities. What one person sees as an interesting and sustainable business case, can be seen as a flagrant rights violation by another, even if they work in the same organisation or agency. This calls for an integrated, cross-sectoral and evidence-based approach to the sector, and one that reflects the local and national dynamics around the mine.

From top-down territorial planning to bottom-up engagement

The territorial dimension of a mine is often used as a key selling point to facilitate investment, often in cooperation with international financial institutions (IFIs) and donor agencies. Several examples exist of territorial planning strategies around extractive industries with a combination of private and public investment. In Madagascar, for example, the World Bank supported the development of a "regional growth pole" in close cooperation with a mineral sands mine, providing loans to the government for jointly developing a seaport, road infrastructure and a business park with a view to connect the isolated southern part of the country to the global economy. These strategies tend to be based on broad assumptions of how development takes place, such as 'building roads will catalyse local private investment' or 'access to infrastructure will catalyse investments and hence contributing to poverty reduction'.

Key steps towards a bottom-up territorial approach



Source: © ECDPM

Even with accompanying measures, what can appear as a strong business case on paper, often fails to take account of the local political economy around a (future) mine, the power dynamics and access to resources, or the basic socio-economic fabric and local political culture. At the same time, major infrastructure and other investments are always transformative in one way or another. Expectations alone, for example, can raise the cost of real estate, alter labour market structures and attract migration, even if no real value is being created. Even limited opportunities can alter the local power structures in society as local elites compete over resources and influence. For countries and companies this can drive up the cost of investment a great deal, as positive change proves more difficult to achieve than initially assumed.

A more bottom-up and evidence-based territorial approach allows companies, governments, citizens and donor agencies to build on incentives, manage expectations on what can realistically be achieved and to make better informed and more strategic choices around mining investment projects, and may in fact also reduce (long term) costs and risks in the process, especially when this is applied as part of a proactive multi-stakeholder process.

The starting point of any territorial approach to partnerships in extractive industries is a serious context analysis, which takes into account the structural and foundational factors of local and regional governance and the economy. A fine-grained understanding of the local and national political economy around mining, elites, their interests and what drives them to engage, oppose, or collaborate helps create more realistic ambitions for partnering with companies, authorities and communities; it also helps managing expectations, both towards the mine (*what benefits can the mine bring to us?*), and of the mine (*what can we realistically expect to achieve?*).

It can help in identifying entry points, actors and potential change agents that can drive or advocate for developmental outcomes and adaptation strategies. In particular, it can help in defining which actors need mobilising and how to best empower local authorities, civil society and communities to enable a balanced engagement over sharing the costs and the benefits of mineral extraction.

Who does what? The need for balanced partnerships and long-term engagement

Applying a territorial perspective is an engagement process as much as it is an analytical one. Multi-stakeholder engagement through partnerships has the potential to bridge divides and empower communities and citizens, as well as strengthen the role of accountable authorities to take charge of local development in a context as volatile as extractive industries. Effective partnerships can be a means of fostering a balanced environment for engagement and collaboration in the long run. How this takes place is critical as the choice of an engagement modality can both foster cooperation and fuel conflict. Putting all the eggs in one basket, for example by financing a civil society organisation to provide basic services as part of a corporate social responsibility (CSR) initiative, may risk marginalising local authorities or cause divisions in civil society. Organising periodic consultations and meetings around the mine may lead to short-term results yet, depending on the environment, they could also mask or obscure underlying tensions that can resurface at any point. Multistakeholder partnerships around extractive industries are therefore best treated as a shared responsibility and a long-term engagement that goes beyond a funding relationship.

Mining often takes place in remote rural areas, characterised by weak institutions, limited local governance and disempowered communities and civil society organisations. The starting point of many multi-stakeholder processes in mining therefore is often a profound imbalance in terms of capacity, (access to) financial resources, networks, power and influence.

In those contexts, development partners can play a key strategic role supporting multi-stakeholder partnerships and engagement and address some of these imbalances. This might be by strategically investing in those sectors where needs are greatest, or where there is real potential for value creation beyond the lifecycle of a mine. Development partners can also play a critical role in empowering marginalised actors in situations of weak governance. Local authorities and civil society are often severely disempowered and at high risk of instrumentalisation for elite interests. Strategic support to individual civil society organisations (CSOs) or coalitions of organisations with varying degrees of formalisation can offset power imbalances. Similarly, a non-instrumental approach to local authorities and decentralisation, but one that seeks to empower authorities and strengthen local accountability structure around a real development mandate, may in fact reveal opportunities in the area of mining, particularly with regard to mineral royalties and investment at local level.

All this requires development partners not only to invest in greater analysis and evidence, but also to make important qualitative changes to engagement in the extractive sector. They must look at multi-stakeholder engagement around private sector initiatives not based solely on a business case, but also through the full extent of sectoral and thematic lenses available to them, including private sector development, local governance, decentralisation and civil society support, environmental protection and climate change, etc. all of which are concerned when dealing with mineral extraction. It also requires adopting a fundamentally political way of working, a more hands-on and coordinated approach to mining areas, and offering knowledge, network expertise and leadership where necessary.

Similarly, it is crucial that agencies and practitioners, including companies, go beyond an oversimplified approach to partnerships as a business-to-stakeholder funding relationship, and recognise the many variations of partnerships - in terms of purpose, location, activities, partners' relations and interests. Partnerships around mining ideally involve a multitude of relationships, tailored to the needs and development patterns of the region. This means that at the very minimum they are underpinned by a frank discussion of who is best placed to support which action; that they ensure critical distance and independence in those areas where needed and facilitate access and cooperation where this is most relevant.

Four implications for policy makers and practitioners

Adopting such an integrated and diversified territorial approach to extractive industries and community engagement can only take place when there is a critical mass of initiatives on the ground. It also requires the main actors to adapt the way in which they engage with one another.

1. *For companies, this means letting go.* Businesses often seek to maintain control, and tend to engage directly and mobilise resources where the demand or risk of instability is strongest. Balancing this approach with a longer term one that embraces diversity and shared responsibilities with (empowered) partners - whether these are CSOs, local/central authorities or donor agencies - can reduce costs and risk in the long

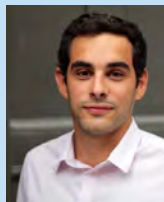
run, and contribute to a company's social licence to operate.

2. *For civil society, this means teaming up.* Coalitions are key to overcome the potentially divisive effects of mineral extraction, to avoid instrumentalisation. They strengthen the negotiating position and overall influence on national and local processes. In more practical terms, coalitions can also improve the external funding environment for CSOs seeking to engage with extractive industries, both for private and public (donor) funding.
3. *For (local and national) authorities, this means looking ahead,* moving beyond narrow elite interests, rent seeking and political survival. Local authorities are in many cases a missing link in the chain, often perpetually disempowered by national agendas, or locked in short-term electoral tactics that make them easy targets for corruption and clientelist approaches, particularly when endowed with local mining royalties. Local democratic and accountable institutions, when equipped with a strong local development mandate can play a critical role in championing national dialogue and change processes and driving local development.
4. *For donor agencies, this means stepping up.* Extractive industries can be a driver of change, but should not be left in isolation. Development partners are well placed to broker and finance innovative partnerships in the sector, and can rebalance power and fill in critical gaps where needed as part of a long-term territorial strategy. Yet doing so requires them to take a more proactive position and avoid oversimplified or bureaucratic approaches that treat extractive industries as a private financier or a mere sectoral development issue.

In short, working with the extractive sector for development cannot be done in isolation, and ultimately means getting your hands dirty. ■

This article is based on ECDPM work on extractive sectors and CSO-business partnerships, including ECDPM Briefing Note 94 and ECDPM Discussion Papers 182, 189, 191 and 204, as well as an upcoming publication which goes into more depth on the various aspects of a territorial approach to partnerships in mining. See <http://ecdpm.org/dossiers/business-civil-society-partnerships/>

About the authors



Karim Karaki and Alfonso Medinilla are Policy Officers at the European Centre for Development Management (ECDPM).



Responsible Mining: Partnership to help achieve the SDGs

by Pam Bell, Lawrence Dechambenoit, Rosie Donachie, Arne Koeppel and Richard Morgan

Partnerships in the mining sector can contribute to sustainable development. A group of large mining companies is working towards such partnerships at a European level.

Mining is a long-term activity. Mines take years to build and to become operational and, once established, will then operate for decades. As a result, the mining sector undertakes long-term investments and requires stable political and fiscal environments.

In addition, as mining activities are often in remote areas, companies rely on local skills and suppliers and are conscious of their need to obtain and retain a social licence to operate from local communities and regional and national governments.

Consequently, mining companies have a strong understanding of the long-term role they have in their operating countries and communities. They also recognise the contributions that they make through the creation of jobs,

payment of state revenues through taxes and royalties and consumption of national products and services.

Moreover, mining companies need to generate value for their shareholders, and recognise that a failure to behave in a responsible and transparent manner could negatively impact their commercial objectives.

The value of partnership

Working with partners can support the mining sector's contribution to social and environmental development. The industry often operates in challenging environmental and political conditions. Partnerships, together with national and local actors as well as international organisations, provide both knowledge and support. This knowledge is an important



Glencore works together with local farmers and the Government in South Africa to develop agricultural activity from subsistence farming in the Greater Tzaneen Municipality, Limpopo Province. The project addresses local poverty, job creation and nutrition among the Ga-Pasha community, through growing and selling fresh produce. Photo courtesy of Glencore.

Examples of successful partnerships

Rio Tinto worked together with the Government of Madagascar and the Traditional Landowners and forged an agreement helping to create an association supporting civil society groups to provide training in mining legislation, land tenure and forestry.

In partnership with the NGO TechnoServe, **Anglo American** has developed entrepreneurship programmes in five different countries. In Botswana alone the programme created 230 micro, small and medium enterprises (MSMEs), providing for more than 2,000 jobs. In Peru, Chile and Brazil the two partners with support of the Inter-American Development Bank spent US\$6 million over two years to support enterprise development, local supplier development, youth training and workforce re-deployment.

Glencore works together with local farmers and the Government in South Africa to develop agricultural activity from subsistence farming in the Greater Tubatse Municipality, Limpopo Province. The project addresses local poverty, job creation and nutrition among the Ga-Pasha community, through growing and selling fresh produce.

BHP Billiton Sustainable Communities, an independent charity established by BHP Billiton, supports an initiative led by PATH to improve the health and development of young children in South Africa and Mozambique. The project has trained hundreds of health care managers and professionals to strengthen health systems and improve service quality. In one district alone, the project helped reduce the number of maternal deaths by 65 percent.

element in mitigating potential negative impacts. Many mining companies are already partnering with different actors, from NGOs to local government representatives and United Nations (UN) organisations.

Recognising the potential of partnerships, the International Council for Mining and Minerals (ICMM) has developed a toolbox for successful partnerships.

However, more benefits can be delivered through investigating the partnerships that the mining sector can enter to support the delivery of the sustainable development goals (SDGs). Through corporates working in cooperation with the public sector, including international organisations, national governments and European Union (EU) institutions, there is potential to improve the effectiveness of the various actors' efforts in contribution to sustainable development.

The mining sector has many years of experience of working in developing countries and is willing to share its knowledge on the steps needed to improve business environments, create jobs and develop skills and training.

The policy framework

The UN 2030 Agenda for Sustainable Development recognises the potential of partnerships with the private sector, and SDG 17 promotes public, private and civil society partnerships. The EU has integrated the 2030 Agenda into its new *Consensus*

for Development, which acknowledges that the involvement of the private sector is necessary for making effective and sustainable development policies. In the communication *A Stronger Role of the Private Sector in Achieving Inclusive and Sustainable Growth in Developing Countries*, the European Commission (EC) actively supports partnerships with the private sector and outlines principles, criteria and measures for public-private partnerships in development policy.

Towards a partnership

In the EU there is a growing consensus that partnerships with the mining sector can increase the effectiveness of its development policy. However, creating a partnership framework does not happen from one day to the next. So what are the elements that are necessary to make an EU partnership with the mining sector a success?

The International Group of Mining Companies (IGMC), consisting of Anglo American, BHP Billiton, Glencore and Rio Tinto, has initiated a multi-stakeholder dialogue with development partners from the EC, UN Development Programme, UN Environment, NGOs and national authorities to address this question, which led to a number of initial recommendations:

- a partnership can only work if the parties have common objectives and are honest and transparent about them;
- partnerships should be equal and be built on trust; roles and responsibilities should be clearly defined;
- partnerships need to be strategic for all partners in order to be sustainable;
- partnerships should be holistic; they should not only focus on a single SDG, as all goals are interdependent;
- each partner should leverage core competences and capitalise on local partnerships to achieve larger impact and systemic change;
- the objectives of the partnership should be aligned with the countries' national plans and roadmaps;
- every partner needs to have strong administrative and institutional skills in order to avoid asymmetry in the partnership.

Such dialogue is a first step towards a more structured engagement at a European level that aims to establish a framework for concrete partnerships to support the delivery of the SDGs in Africa. The next step of this initiative will be to identify areas in which such a partnership could be most effective in order to identify concrete actions. ■

About the authors

Written for the International Group of Mining Companies (IGMC) by Pam Bell, Corporate Affairs at Glencore; Lawrence Dechambenoit, Vice President Corporate Relations Africa at Rio Tinto; Rosie Donachie, Head of Corporate Affairs and Sustainability, Europe at BHP Billiton; Arne Koepfel, Head of Research at FTI Consulting, and Richard Morgan, Head of Government Relations at Anglo American.

On the political economy of reforms in the extractive sector

by San Bilal

Poor or inappropriate policies, governance and institutional structures have commonly been blamed for the resource curse that plagues so many developing countries. Instead of focusing on mainly technical remedies, more effort should be dedicated to designing reforms that are incentive-compatible with key stakeholders that can drive or hinder such reforms, and to promoting initiatives that can enhance domestic incentives towards a pro-development path in resource-rich countries.

When properly managed, natural resources can effectively contribute to sustainable and equitable development. Yet too often, resource-rich countries have failed to capitalise on the benefits and transformative potential of their natural endowment.

The poor performance of some resource-rich countries can be explained by a number of economic factors, including possible negative effects through the terms of trade, the cyclical long-term price fluctuation of commodities, short-term high price volatility of commodities, the crowding out of manufacturing and the Dutch disease, according to which the natural resources sector grows at the expense of manufacturing, and associated notably with real exchange rate appreciation. Poor macroeconomic management and budgetary processes, as well as the absence of coherent long-term strategic approaches, policies and mechanisms are other common factors.

Power relations and institutional settings also often explain the resource curse. Natural resources create rents, which affect incentives and behaviour of political and economic actors. Political elites play a central role in the collection and allocation of these rents and the distribution of revenues generated directly and indirectly by the exploitation of natural resources. Accordingly, they may pursue self-interest objectives rather than development goals in the management of natural resources, and thus capture these rents. Economic actors are also more likely to engage in wasteful

rent-seeking activities, thus diverting resources away from the productive sector.

Rents in turn affect the economic structure, political framework, institutional setting and power relations within a country, particularly where patronage prevails.

Foreign partners, governments or companies, in the pursuit of their own interests, have also at times contributed to reinforce these negative tendencies and the associated resource curse.

The competition for the control and allocation of natural resources and the revenues they generate may lead to political instability, conflicts and authoritarian regimes.

In other words, power relations, politics and governance matters a great deal!

Trying to become more like Norway on a sunny day

While recognising the challenges posed by poor economic management, weak governance and institutions, the approach commonly prescribed for resource-rich developing countries has been to promote reforms focused on emulating 'best practice', or at least 'good practice', as the norms to remedy their structural weaknesses and unleash the potential benefits from their natural resources.

A number of wise policy recommendations and measures have been formulated, with a view to improving the management of natural resources, so as to overcome the pitfalls of the resource curse. These concern a broad range of

issues, including the legal and regulatory environment required, the macroeconomic policy framework, the appropriate fiscal regime and budgetary process, exchange rate policy, the institutional setting and mechanism, the role of sovereign wealth funds and stabilisation funds, sustainability and environment criteria, production diversification and linkages, social development, education and skills development, conflict prevention, etc.

The thrust of the recommendations generally centres on the need to build or strengthen the capacity of the state to better manage its natural resources, improve its governance, increase transparency and accountability mechanisms. Or put more simply: try to become more like Norway on a sunny day!

Good fit and incentive-centred approaches

The paradox is that these 'best practice' recommendations often tend to ignore the specific domestic dynamics at the source of the mismanagement of the extractive sector, that also often prevail in the reform process. A more suitable approach should instead seek 'best-fit' change processes, tailored to address the constraints faced in a dysfunctional environment.

Incentives and constraints faced by political and economic actors should thus systematically be made more explicit and taken into account, not only in identifying the cause of the mismanagement of natural resources – which is now quite common, but



End corruption. Photo: Babak Fakhamzadeh/Flickr.

more importantly also in identifying the dynamics of an incentive-compatible reform agenda.

Many reform processes, while based on sound advice grounded in good practice, do not get the necessary domestic buy-in by policy makers to succeed. The causes are generally well known, but not factored in the remedies advocated. Problems of capacity and institutional designs are too often addressed in a technocratic manner, as if immune from the power and economic (self-)interests and incentives of the ruling and dominant actors.

Measures to address the resource curse challenges should therefore better integrate the domestic incentives to undertake the necessary reforms, as well as the international dynamics that may hinder or support reforms. Recommendations on how to better manage natural resources, as well as the scope, timing and sequencing of reforms, should build on insights into the political feasibility of the reforms advocated, and their compatibility with incentives from a range of key stakeholders, in relation to the domestic and international political and institutional environment.

Effective recommendations for reforms should also help identify opportunities to alter the incentives of the ruling elite, whose vested interests and power dynamics may otherwise bolster the resource curse. Such strategies may include interventions that seek to extend the time horizon of policy makers (hence reducing their perception of possible short term losses due to policy reforms) or mobilising stakeholders (so as to

increase the ranges of interests involved, notably those of potential drivers of change). Interventions that seek to 'enclave capacity and institutions' related to natural resources might be an option to promote better governance, as advocated by the World Bank. This is also the principle in play with proposals to develop 'early reform zones', such as in the case of special economic zones, for instance.

Towards integrated approaches to reform dynamics

Yet, given the dominance of the extractive sector in many resource-rich countries, more comprehensive approaches, based on the inter-sectoral and cross-issues dynamics, might offer some promising new opportunities.

In this context, the emphasis on economic and structural transformation, as a necessary complementary approach to benefitting from natural resources, may prove most important to break the potential vicious cycle of the resource curse. This is important not only in the framework of development policies, harnessing the benefits of natural resources to stimulate the rest of the economy and society. It can also play a central role in shifting the power and economic relations prevailing in the management of natural resources by broadening the scope of interests and stakeholders affected by the management of resources, at least in some contexts.

Greater emphasis on the transformative role of natural resources de facto contributes to mobilising a new set of stakeholders (including potential

drivers of change) and to change the focus and time horizon of policy makers involved in resources management. More attention should be devoted to these potential new dynamics for reforms in resource-rich countries, not only in terms of potential development strategies, but also in terms of altering incentives and political dynamics to improve the management of natural resources.

International dynamics and initiatives - on due diligence, transparency, reporting, conflict, illicit financial flows and taxation, corruption, etc. - and regional ones - such as the Africa Mining Vision, the International Conference of the Great Lakes Region, and other sub-regional initiatives - have also the potential to alter incentives for a better management of extractive resources and their linkages to the rest of the economy, for more inclusive and sustainable development.

Political feasibility of creating a virtuous cycle

The challenge remains to translate this potential into reality. This will require greater attention to the effective translation of generic policy designs into specific actions, within as well as across policy frameworks, and into each of the countries concerned. In doing so, greater consideration should be given to how an agenda for change can better build on existing political economy dynamics and positively affect incentives for reforms and the balance of interests and power in resource-rich countries; that is, focusing on the political feasibility of creating a virtuous cycle of development-oriented reforms. ■

About the author



Dr San Bilal is Head of Programme, Economic Transformation; Trade, Investment and Finance; and editor of *GREAT Insights* magazine, ECDPM. Twitter: @SanBilal1

African mining, employment and women's empowerment

by Anja Tolonen

Extractive industries can play an important role in economic development in poorer countries, but its effects on gender equality have received little focus. This article discusses findings from recent empirical papers exploring the effect of large-scale mining on women's empowerment in Sub-Saharan Africa.

Sub-Saharan Africa has vast natural resource endowments, including oil, gas and minerals. The extraction of these resources make up a large share of total exports, and the extractive industry sectors receive the most interest from foreign investors. While there is extensive research on how extractive industries affect domestic economic growth and social stability, there has been less focus on how these industries affect women's economic opportunities.

This article focuses on recent evidence on how extractive industries affect women's livelihoods.

The question of how natural resource extraction affects women has received some focus from the policy world. The African Mining Vision describes the challenges and opportunities that the African mining sector will face in the coming decades. It describes women as "marginalised stakeholders", and states that increased economic inequality between men and women is one of many adverse social impacts to be expected. In particular, it argues that mining may disrupt social structures and fail to provide jobs to women in the mines. While there is substantial employment of women in artisanal and small-scale mining, it is generally thought that women have less access to jobs in the large-scale sector.

Moreover, environmental degradation might be especially harmful for women. For example, if mining leads to environmental degradation, it will force women to spend more time collecting safe water and food.

In research conducted over the last five years, I have been trying to examine

some these arguments using data from the last 30 years. The research has focused on how large-scale mining operations change (i) access to jobs for men and women, (ii) changes in female empowerment, including gender norms and bargaining power within the household, and access to health care, and lastly (iii) consequences for infant mortality. The research shows that the policy documents, while spelling out real negative consequences, underestimate the potential benefits that the sector can bring to men, women, and children in local communities. Nevertheless, the research does not show that economic opportunities are equal between men and women.

Labour market outcomes for women

The first question that we wanted to study is whether the large-scale mining industry generates employment for women, and if so, what type of employment? The large-scale mining sector is generally considered not to generate enough local employment, as it tends to be capital intensive rather than labour intensive. Moreover, the "local multiplier" is thought to be weak – that is, for each job in the large-scale mining industry, few jobs will be created in other sectors. These other sectors can be processing of raw materials, construction, service, retail, etc. Some earlier papers have explored the effects of large-scale mining on local labour markets (e.g. in Peru) and agricultural production (e.g. in Ghana) using similar methods to those used in our study.

While we cannot calculate the multiplier in our research study because we do not have access to reliable employment numbers, we test this hypothesis by examining to what extent men and women who live in mining communities shift between sectors of the job market.

That men and women benefit differently from economic spillovers generated by extractive industries was first suggested by Michael Ross (2008). He examined if oil exports changed men's and women's access to employment at a national level. He argues that oil exports reduce women's participation in the labour market. The reason for this is because oil exports often change the focus of the national economy from manufacturing industries to primary industries, and women tend to be employed more often in the former than the latter. In fact, he argues that as a country starts exporting oil, it will generate employment for men in the oil sector, but reduce the number of available jobs for women. Moreover, as households get richer, women will choose to work less. In the paper, Ross tests these hypotheses using data on all countries in the world over time. The analysis showed that oil exports are associated with lower female labour force participation in the country-wide economy.

With Andreas Kotsadam, we explore how large-scale mining in sub-Saharan Africa changes local labour markets. So if Ross (2008) focused on aggregate effects of oil exports on women's access to employment, we focus on the local effects of exploiting the within-country geographical variation



Tetanus jab at Pissa health centre, CAR. Photo: Pierre Holtz for UNICEF

in natural resource extraction. We use survey data from the Demographic and Health Surveys of more than 500,000 women living in 29 African countries. We geographically match the village location of these women to the location of large mines. This helps us understand if a woman lived close to a large mine. Over the time period that we studied (three decades), there were many mines that started producing, but also many mines that closed down. This allowed us to analyse the different effects of mine openings and mine closures on women's and men's labour market opportunities in the villages and cities around the mining sites.

The analysis of local labour markets near large mines shows that large mines change the structure of the local economies. This is in contrast to the hypothesis that mines generate little employment and interaction with the

local economy. Both women and men who live in communities near the mines are less likely to work in subsistence farming in villages that are located within 20 kilometres from a mine. However, we find that women and men benefitted from very different employment opportunities. Men living in communities close to mines are more likely to work in manual labour, compared with similar men who live far away from mines. Some of these men are working directly in the mining sector. Women living in villages close to mines, on the other hand, are more likely to work in the service and sales sector, compared with women who live in comparable villages further away from the large mines. The service sector jobs range from food industry, entertainment, and hairdressing to transportation.

Additional important benefits are found: women are more likely to earn

cash income for their work and are less likely to be paid in kind if they live near large active mines. These women are also more likely to work all year instead of only during the agricultural high season. These findings illustrate that large-scale mining can generate important employment benefits through stimulating secondary industries such as services and sales.

A few issues of sustainability emerge from the analysis. First, the number of jobs lost within subsistence farming exceeded the level of employment generated within new sectors -- skilled manual labour and services. This means that, on average, in villages near mines, men and women are less likely to be working than in comparable villages further away. There are two main hypotheses as to why this would happen: either (i) because of increasing household income, the marginal worker

stops working, or (ii) self-employed farmers lose access to farmland due to increasing competition over the land. Unfortunately, the data sources used do not allow us to choose which of these explanations drives the result that we see.

A second issue of sustainability is that the employment generated disappears at the end of the mining period. We observe a reduction in employment in the years after mine closure. When the jobs stimulated by the mine presence disappears, unemployment rises, as people fail to revert back to agricultural work.

Gold mining and women's empowerment

Ongoing research uses the rapid expansion in gold mining in eight African countries to understand the effect that these large mines have on women's empowerment, beyond access to employment (Tolonen, 2016a). As local wages for men increase, women run the risk of losing household bargaining power to their husbands, if women's wages increase less. This spurred me on to explore in more detail how women's overall wellbeing is affected by mining.

Contrary to the hypothesis laid out in the African Mining Vision, I find that women's bargaining power in the household does not change in villages near mines. This might be explained by women's increased access to financial resources and non-farm employment. Alongside, women have better access to media, such as radio and newspapers, and are more likely to report having listened to family planning programs. These women are also less likely to justify domestic violence, which is an indicator for more female empowerment. These changes are found both among migrant women and women who are born in the mining communities.

Importantly, in a companion paper (Tolonen, 2016b), I find that despite the risk of pollution, infant mortality rates decrease in the areas near mines. In particular, it decreases in villages that are within 10 kilometres from a mine. The infant mortality rates in these communities were very high at baseline; the mean is above 100 out of 1000 live births. These large reductions in infant mortality observed almost instantly are not likely to be replicated in areas with more moderate levels of infant mortality at baseline.

Conclusions

The studies summarised in this article highlight complicated relations between the large-scale mining sector and community development. On the one hand, the sector can generate important non-agricultural employment that can transform the lives of women, men and children. On the other hand, such opportunities differ across groups, especially between men and women. Moreover, extractive industries depend on non-renewable resources. The sector will need to tackle the lack of economic opportunities once the mines close down, to generate inclusive and sustainable opportunities at the local level.

This article describes evidence from the research Kotsadam, Andreas and Anja Tolonen (2016), *African Mining, Gender and Local Employment*, World Development, vol.83, July, 325-339 (see also references therein), and draws from more recent, unpublished research on how large-scale mining affects women's empowerment. ■

References

- Ross, Michael L. *Oil, Islam, and women. American political science review. 102.01 (2008): 107-123.*
- Tolonen, Anja. *Local Industrial Shocks and Endogenous Gender Norms. (2016a). Unpublished.*
- Tolonen, Anja. *Local Industrial Shocks and Infant Mortality. (2016b). Unpublished.*

About the author



Dr Anja Tolonen is an Assistant Professor of Economics at Barnard College, Columbia University, New York. Email: atolonen@barnard.edu

<http://anjatolonen.com>
Twitter: @TolonenAnja

From mines and wells to well-built minds: turning Sub-Saharan Africa's natural resource wealth into human capital

by Bénédicte de la Brière and Deon Filmer

Sub-Saharan Africa's natural resource-rich countries should invest some of their rents in the foundations of human capital, a smart strategy to convert finite resource wealth into broad-based long-term development.

Rich countries, poor people

Sub-Saharan Africa's natural-resource-rich countries—those endowed with minerals or hydrocarbons such as oil and natural gas—fare poorly in terms of human development. Children in these countries are more likely to die before their first birthday, more likely to be chronically malnourished, and less likely to attend school than are children in other countries with similar national income. Resource-rich countries in Sub-Saharan Africa (SSA) spend less on education and health than other countries in the region and less than resource-rich countries in other regions. Their spending is also less effective and more unequal; in these countries, additional spending on education and health yields poorer outcomes than elsewhere and the gap between the richest and the poorest is larger, especially in oil-rich countries.

De-risking natural resource rents: invest in human capital

Recent commodity price declines have highlighted the risks inherent in relying on natural resources for development. Just a few years ago, the issue in SSA was how to manage the wealth created; today, the challenge is how to protect the right expenditures during the necessary fiscal adjustment. Despite the current downturn, the extractives sector is and will remain an important part of SSA's growth story. Many countries in the region need to rise to the challenge of managing the resource flows and using rents optimally.

There is a strong case for government involvement in improving human capital. Families underinvest relative to the socially optimal level because of the cash and credit constraints they face and because additional benefits accrue to societies over and above what families receive themselves. However, many governments in SSA also face

credit constraints and resource-rich countries face specific governance challenges. Rents from natural resources can potentially relieve governments of their credit constraints and enable them to ratchet up investments in the education and health of their people.

Governments face a choice of how best to allocate resource rents between spending, investing in human or physical capital, and investing in global financial assets (through a sovereign wealth fund, for example). The optimal choice will vary across countries, depending on the relative rate of return to each choice. Rates of return to investing in physical and human capital will be high in countries where the capital stock is low. Moreover, higher levels of human capital make investments in physical capital more productive, and vice versa, which suggests that the optimal portfolio will involve investing in both. Human capital should be prioritised in many of Sub-Saharan Africa's resource-rich countries because of their low starting point.

Human capital has an additional advantage: it helps to reduce the risks of conflict, which is all the more important in conflict-prone, resource-rich countries. First, human capital is embodied in people and thus hard to expropriate. Second, human capital investments make work more attractive and increase the opportunity cost of giving up productive work to go fight. Third, education increases the moral cost of fighting, especially if schooling transmits values of cooperation and tolerance.

Counteracting governance challenges through institutions, incentives and information

Investing effectively in human capital is hard because it ultimately involves delivering social services – health, education, social assistance – which involve a large number



School children in a classroom in Gao, Mali
Photo: UN Photo/Marco Dormino

of actors and activities, multiple levels of responsibility and decision-making, and complex interactions between providers, users of the services and their households and communities. Using resource rents to fund this investment exacerbates governance challenges for three main reasons. First, resource rents tend to be subject to less accountability than other public funds since they come off as “free money”. Second, resource rents are (relatively) large in volume, and it is hard for weak public financial systems to absorb them. In particular, public investment management is key to improving the effectiveness of spending. Third, resource rents are volatile, which makes optimal investment strategies difficult and uncertain.

Strengthening institutions, incentives, and information can help governments address these governance challenges. Institutional structures govern the management of the resource rents themselves and shape the allocation of revenues to areas of government: decentralising and leveraging the private sector are key entry points.

Incentives affect the way provider organisations, managers, and staff are held accountable for their behaviours and ability to deliver services with quality and efficiency.

Revenues from natural resources can fund financial incentives to strengthen either providers' performance (that is, linking rewards to measurable actions or achievements) or demand for the services (that is, conditional or unconditional cash transfers to potential beneficiaries of services).

Information opens channels for redress, monitoring and citizens' actions. Information increases citizens' ability to understand their rights, to know the standards of services they should expect, and to hold governments and providers accountable. Producing information, making it available, and increasing social accountability offer potential ways to reduce information asymmetries and stimulate citizens and third-

party monitoring of government expenditures and of service providers.

Establishing governance regimes that underpin smart investments of resource wealth in human capital takes time. However, governments often face high expectations and considerable pressure to demonstrate quick results from resource rents. Successful countries such as Botswana, Chile and Malaysia show that putting in place the right elements early is possible.

Reaping high returns through smart human capital investments

Human development underpins prosperity at the micro and macro levels. High returns on education are well documented but evidence is also accumulating on very high returns on early life investments. Investments in early child development—from both mother and newborn health to early childhood nutrition, care, and education—significantly improve outcomes in childhood and later on in life. They provide high externalities by launching a virtuous circle of better nutrition, better learning, better public health and lower fertility. Higher education and better health decrease the likelihood of civil conflict and crime.

Human capital investments have lifelong and intergenerational effects. Early life conditions lay the foundations for adult human capital both in terms of cognitive and non-cognitive skills, and capabilities such as health and social functioning. Learning begets learning for the current and future generations: mothers with better health and education have healthier and more educated children, who will face fewer chronic diseases linked to stress and under-nutrition.

Investing early is more cost-effective. The early years of life

are periods of both great vulnerability and great opportunities. Failure to invest early is difficult and expensive to compensate for later.

The three main priorities are thus ensuring that mothers and their children are healthy, that children are ready for school and that they learn what they need to succeed in the workplace and beyond: cognitive, behavioural and socio-emotional skills such as conscientiousness, perseverance, sociability and curiosity. Given their low starting point, resource-rich countries in SSA may reap very high rates of return on their investments if they can manage the scale and ensure quality.

Poor households may still face barriers in accessing available services: poverty itself is one as it forces trade-offs between food and other basic needs; other barriers include distance, cultural and social norms.

In the context of resource-rich countries, cash transfers—either conditional or unconditional—can play three main roles. First, they provide a way to distribute the resource rents. Second, they significantly reduce short-term poverty and potentially poverty-induced stress. Third, they lift demand-side barriers to household investments in child education, nutrition, and health, as well as increase the investment in productive assets that foster further income generation. In that dynamic, mothers and girls are key agents to break the inter-generational transmission of poverty.

Escaping the resource curse: invest early and in a smart way

The wealth derived from oil, natural gas, and minerals is non-renewable. Investing in human capital should be a central part of a strategy to convert finite natural wealth into long-term development. Indeed, across the world, countries that have avoided the so-called resource curse and set a course for long-run development have pursued a balanced approach that has included investing in people.

Human capital is perpetuated through the generations, it helps promote growth by distributing wealth broadly and thus lays the foundations for broad-based development as the resources taper off. In SSA where the needs in education and health are great, the returns will be especially high.

But investing well in human capital is hard, especially in resource-rich countries. Many emerging resource-rich countries in SSA stand at a crossroad. The flow of revenues they expect from mineral wealth may evaporate or be diverted

before people and economies reap their full benefits. However, sound institutions, coherent incentives for service delivery, and open access to information will help both governments and citizens to channel the resources to investments that sustain broad-based development.

Starting at the source, in early childhood, will set the course for better health and education, improve the prospects that youth and adults will be productive, and decrease the risk of civil conflict.

Distributing the wealth will also widen the space for the reforms that governments will need to invest in public investment management and service delivery. Together with other investments in infrastructure, these elements will enhance the flow of revenues and harness the potential of natural resources as a basis for inclusive and shared prosperity. ■

About the authors



Dr Bénédicte de la Brière (left) and Dr Deon Filmer are lead economists at the World Bank.



Lack of skilled human capital in resource-rich Africa: the real paradox?

by Nelly Farah Nguegan

The poor level of skills and institutional development in natural resource management observed in most resource-rich African countries comes not only from the lack of incentives to invest in human capital but also from the perverse effects of the international division of labour.

Most resource-rich African countries lack specialised training institutes of management of their natural wealth. Yet human capital is a key factor for economic growth (Baah-Boateng, 2013) and features as one of the strategic axes of both the African Union Plan of Action for the Acceleration of Industrial Development in Africa (PIDA) and the Agenda 2063.

Even more curious is the yet abundant potential workforce on the continent. Indeed, Africa is home to over a billion people, most of them under the age of 20. With 30% of the world's known reserves of minerals and a booming population, the undeveloped capacities and continued imported expertise in natural resource management in Africa is unexpected.

If capacity is "the ability of people, organizations, and society as a whole to manage their affairs successfully; and capacity development is the process by which people, organizations, and society as a whole unleash, strengthen, create, adapt, and maintain capacity over time" (as defined by ACBF, 2011), and if the lack of skilled human capital contributes to the persistent mismanagement of Africa's natural resources, resulting in yearly massive financial losses, why have African resource-rich countries not developed local capacities to efficiently manage and exploit their natural endowment?

Considering natural resources training schools as an indicator of capacity development, it is argued that the scarcity of such specialised schools persists because the incentives for local skills development are lower than elitists' interests and because of some perverse effects of the international division of labour.

Low incentives for skills development and high elitists interests

Training institutions could create the capacities needed for efficient natural resource management in Africa. However, they compete with both national and foreign interests.

A clash with the interests of national political elites

Natural resources management is a social field (à la Bourdieu) with stakes and interests and whose actors fight to acquire and preserve rare goods and privileges. Since knowledge-capital is the main key to this field (political, economic, technical expertise etc.), its scarcity works to the advantage of the few possessing it: elites.

For instance, in the Central African Republic, former president Bozizé replaced all skilled civil servants with inexperienced members of his Gbaya tribe in the ministry of mines, energy and water resources. In such a context, skills development in natural resource management, by allowing mass training, would put an end to the elitism that prevails in this sector and the subsequent privileges. So, limited investments in human capital seem more profitable not only to national elites but also for foreign stakeholders.

Self preservation-oriented foreign interests and capital

Multinationals and other foreign investors in Africa's natural resources sector seek to safeguard their interests and, where it applies, their monopolies in negotiation, financing and expertise because it secures and increases their profits. Thus, projects executed by foreign actors are designed in packages

that include exploration, execution, operations and knowledge transfer.

The latter is more of a final user book transfer and less of a skill transfer because only end-user skills, necessary to operate the product, are transferred. The technological and technical skills required to create the product remain out of reach of the beneficiary countries. By contrast, developing African local skills and expertise, by improving the local supply, would significantly reduce the need foreign ones and arguably the resulting rents.

A perverse effect of the international division of labour

Local natural resource management skills in Africa are limited by the states' economic extraversion and dependence on primary commodities.

Economic extraversion

Most African countries have not invested in the development of local capacities in resource management because they are not the end users. For instance, on the one hand, Niger is Africa's first producer of uranium but does not process nor use it domestically. Moreover, 90% of its territory does not have access to electricity. On the other hand, France is the first importer of uranium from Niger, which makes 30% of its total energy consumption. Uranium appears to be a priority for the development of Niger but at the extraction level. Therefore, investments concentrate on extractive operations and exports but not capacity development. As a matter of fact, there are no uranium transformation institutes in Niger. This situation is further reinforced with African economies' dependence on raw materials exports.



Repairing a haul truck at the Rossing Uranium Mine, Namibia.
Photo: John Hogg/World Bank.

Dependence on primary commodities

African economies' commodity dependence and the ensuing poor economic diversification do not only impede the growth of their local manufacturing framework. It also impacts heavily and negatively on the continent's skills development. Indeed, raw materials have little added value. Added value is created by processing and manufacturing locally which in turn requires additional skills, thus training. Furthermore, trained human capital is a more dynamic source of productivity growth.

However, since raw materials exports do not require particular skills, those are

not developed. Facts show that most commodity dependent African countries tend to invest less in human capital.

"In 2012, natural resources accounted for 77% of total exports and 42% of government revenues" (according to the African Natural Resources Centre) and Africa presents the world's lowest levels of tertiary enrolment in education.

Besides preventing investment in skills development, commodity dependence diverts the existing human capital from other important economic sectors which find themselves depleted or abandoned, a phenomenon also called 'Dutch disease'. So, natural resources as African economies' comparative advantage tend to limit one

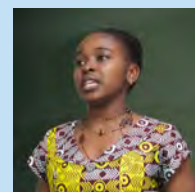
of the very structural drivers they need to spur growth: human resources.

The imperative to invest in human capital

The African economies' resource paradox actually lies in the lack of qualified human capital and dependence on both foreign markets and expertise. African resource-rich countries tend not to have specialised training institutes from where local expertise could emerge. Among the root causes of this situation is the clash between human capital development in Africa and both national and foreign interests. The incentives for investments in human capital appear to be smaller than the profits of the current key stakeholders. Also, local natural resource management skills in Africa are limited by the states' economic extraversion and dependence on primary commodities. Because the end product of African natural resources is not consumed in the domestic market but rather a foreign market, investments in skills development are low. In addition, the more commodities-dependent an African economy is, the less it invests in human capital.

Yet, human capital appears to be just as important as natural resources for economic growth of African countries; as the World Economic Forum puts it: "a nation's human capital endowment--the skills and capacities that reside in people and that are put to productive use--can be a more important determinant of its long term economic success than virtually any other resource. This resource must be invested in and leveraged efficiently in order for it to generate returns--for the individuals involved as well as economy as a whole." ■

About the author



Nelly Farah Nguegan is the winner of the 2017 Tana Forum Universities Essay Competition and a PhD candidate at the International Relations Institute of Cameroon.

A global initiative to end support to conflict through mineral production and trade

by Louis Maréchal

The OECD, together with other international and regional organisations, the global private sector and civil society, has developed a programme to support companies to increase transparency and integrity and address risks in their mineral supply chains.

Since the 1990s, natural resources have been associated with the financing of non-state armed groups or public security forces and the perpetration of serious abuses of human rights. While companies involved in the mining and trade of minerals have the potential to generate income and foster local development, they are also at risk of contributing to or being associated with significant adverse impacts. This is particularly the case in areas of the world that are impacted by conflict situations or characterised by high levels of risk.

The OECD's work on responsible mineral supply chains began in 2009, as part of a broader ambition and agenda to support the global implementation of the recommendations of the OECD Guidelines for Multinational Enterprises - the most comprehensive set of government-backed recommendations on responsible business conduct in existence today. The G8 and International Conference of the Great Lakes Region (ICGLR) called on the OECD to help develop a framework to enable the responsible sourcing of minerals from conflict-affected and high-risk areas. This ultimately led to the development of the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (hereafter "Guidance").

The Guidance was developed with the input of OECD member states and non-member states (in addition to countries from Africa's Great Lakes region, representatives from Brazil, South Africa and Malaysia were involved); the private sector; international organisations and representatives from civil society. The Guidance seeks to clarify how companies can identify and manage risks along the mineral supply chain, from miners to the manufacturing and brand-name companies that use these minerals in their products.

More specifically, the Guidance aims to help companies respect human rights, observe applicable rules of international humanitarian law in situations of armed conflict, and avoid contributing to conflict. It thereby helps companies contribute

to sustainable development and source responsibly from conflict-affected and high-risk areas. In fact, one of the core objectives of the Guidance, which recognises the value of business investment, is ultimately to promote responsible private sector engagement in post-conflict and fragile states.

From US-based multinationals to local mineral trading houses in Africa: the Guidance applies to all companies in the supply chain, globally

Since its adoption in May 2011, the Guidance has become the leading industry standard for companies to meet the expectations of the international community, regulators, customers and consumers on mineral supply chain transparency and integrity.

Industry is the main implementer of the recommendations of the Guidance as the framework for risk-based due diligence in the minerals supply chain is designed for companies. Multiple initiatives have been developed to assist companies in undertaking due diligence along the supply chain, for instance to help them establish traceability or chain of custody systems, as well as to identify, assess, and efficiently manage risks. Pursuant to the recommendations of the Guidance, industry groups and market associations have developed sector programmes to operationalise the Guidance and help their members implement Step 4 of the Guidance independent

In addition to the 35 OECD Members, 8 non-Members, namely Argentina, Brazil, Colombia, Costa Rica, Lithuania, Morocco, Peru and Romania, adhered to the OECD Council Recommendation and as such, have committed to actively promote the observance of the Guidance by companies operating in or from their territories and sourcing minerals from conflict-affected or high-risk areas.



Artisanal mining. Digging for copper, DR Congo Photo: Fairphone via Flickr.

third party audits at specific critical points of the supply chain (refining and smelting stages for the 3TG sectors - tin, tantalum, tungsten and gold). To gauge the alignment, coherence and credibility of these initiatives, the OECD is currently carrying out an assessment of the alignment of industry programmes' standards and implementation efforts with the OECD Guidance.

Since 2010, eight UN Security Council Resolutions adopted in the context of the DRC, Côte d'Ivoire and Sudan called for due diligence in mineral supply chains based on the OECD Guidance to avoid financing illegal armed groups. The Guidance has thus been accepted globally as a key tool to help implement natural resource related sanctions and combat financing of conflict.

The Guidance remains a voluntary standard but it is referenced in regulations in the United States (US Dodd Frank Act), and serves as the basis for the recently adopted EU Regulation laying down supply chain due diligence obligations for Union importers of 3TG originating from conflict-affected and high-risk areas. It is also part of the legal framework in the Democratic Republic of the Congo (DRC), Burundi and Rwanda. Together with China's Chamber of Commerce for Metals and the Ministry of Commerce, the OECD supported the development of the Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains to implement responsible mineral sourcing and due diligence in conformity with the OECD Guidance. The government of the People's Republic of China is also developing regulation on imports of tin, tantalum and tungsten and has been using the OECD Guidance as a basis.

The Guidance aims to increase international market access for responsible artisanal and small-scale mining production

One of the main goals of the Guidance and its implementation programme is to ensure that international standards do not further marginalise workers of the informal sector. The Guidance includes an Appendix on "*Suggested measures to create economic and development opportunities for artisanal*

and small-scale miners" calling on all stakeholders to engage in the legalisation and formalisation of artisanal mines and miners as these communities are particularly vulnerable to serious abuses and impacts associated with mining. The objective is two-fold:

- to build secure, transparent and verifiable supply chains from mine to market and enable due diligence for legitimate artisanal and small-scale mining; and
- to ensure that legitimate artisanal mining communities can benefit from ongoing trade in conflict-affected and high-risk areas, to support their development and thus contribute to the general improvement of the situation on the ground.

To further develop its support to the global artisanal and small-scale mining (ASM) formalisation agenda, the OECD is working with the World Bank, to combine efforts to develop a sustainable ASM sector. For the first time, in May 2017, a dedicated consultation was organised with the World Bank to explore with relevant stakeholders and the donor community options for establishing a global ASM platform to foster collaboration, coordination and mutual support in advancing the ASM rationalisation and formalisation agenda. This initial consultation, which took place back-to-back with the 11th Forum on Responsible Supply Chains of Minerals, will be followed by in-region discussions in the course of 2017 and early 2018.

A standard applicable to all mineral resources, from mica to oil and gas

The recommendations of the Guidance are applicable to all mineral resources. The initial focus on 3TG was a consequence of the specific characteristics of illegal exploitation of these resources that supported and still supports state and non-state armed groups in the African Great Lakes region, as reported by several United Nations Group of Experts.

However, in recent years, the OECD has received numerous calls from its member states as well as from civil

society organisations and private sector to support the implementation of the Guidance in mineral supply chains beyond 3TG. This has led to increased interactions with industry-led initiatives looking at responsible sourcing in the cobalt, coal, precious stones and mica. While there are no plans to develop detailed recommendations for each mineral supply chain, there is recognition that there is merit in creating some tool to help companies understand how to evaluate the risks in additional supply chains. This has led to the development of a specific project by the OECD Secretariat, called the *Handbook on risks associated with production and trade of natural resources*, which will provide users with a compilation of credible source of information on risks in the natural resources supply chains. The Handbook will help companies get started on due diligence by helping them understand the risks associated with different supply chains in order to prioritise due diligence activities. The Handbook should be operational in 2018 and should provide information on:

- up to 30 different mineral supply chains (covering industrial minerals, base metals, and energy raw materials including oil and gas);
- risks identified in Annex II of the Guidance at a country level (namely, risks of: direct and indirect support to non-state armed groups; direct and indirect support to private and public security forces; serious abuses of human rights; bribery and fraudulent misrepresentation of the origin of minerals; money laundering; and non-payment of taxes, fees and royalties due to government);
- allegations of wrongdoing reported to be connected to the production and trade of the mineral resources covered in the Handbook.

The system is only as strong as its weakest link...

The first years of implementation of the Guidance have demonstrated a considerable level of commitment by many stakeholders, some of which have even gone beyond the expectations put forward in the Guidance. However, a lot

remains to be done. The system is as strong as its weakest link. Gaps still exist in terms of uptake of the Guidance in mineral supply chains beyond 3TG, in reporting by companies on their due diligence actions, and indeed on states' role in creating the enabling environment for due diligence. The OECD Secretariat and its partners, ranging from governments to local civil society organisations and of course companies from all around the world, will therefore strive in future years to assist all stakeholders engaged in the promotion of responsible business conduct in all mineral supply chains. This will entail various types of activities and projects, ranging from technical support to European institutions to support the rolling out of the EU regulation, to the development tools for companies to mitigate risks in their supply chains such as the Practical Actions for the Worst Forms of Child Labour, and the development of a methodology to measure the impact of due diligence actions on the ground in mining communities. ■

About the author



Louis Maréchal works on projects focused on the extractives sector and on the implementation of the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, at the Responsible Business Conduct Unit of the Organisation for Economic Co-operation and Development (OECD).

Trade as a vehicle of our values and development: The new EU Regulation on conflict minerals

by Signe Ratso

The New EU Regulation on conflict minerals, which entered into force on 8 June, shows how value-based and responsible trade can help conflict regions develop sustainably.

Trade can build bridges and connect people, generating enormous benefits for communities both in and outside the European Union (EU). By basing trade policy on our values, we can also harness globalisation and help regions facing conflict and instability to develop sustainably.

As the world's leading development contributor, the EU and its Member States donated €68 billion in 2015 to help people move out of poverty while the trillion euros' worth of goods we purchase each year from the developing world powerfully contribute to the same ends. In this way, trade and development go hand in hand, upholding our values at home and projecting them globally.

In particular, the EU has recently strengthened its approach to the responsible sourcing of minerals originating in conflict zones by developing clear rules. In 2014, we proposed an "integrated EU approach" to avoid trade in these minerals fuelling and financing conflict. The new EU Regulation 2017/821 puts supply chain due diligence obligations on EU importers of tin, tantalum and tungsten, their ores, and gold originating from conflict-affected and high-risk areas. This is an important step to break the link between the trade in minerals and the financing of conflict. This approach on conflict minerals is part of a philosophy that is and will continue to pervade EU trade policy: a policy based on values.

The new EU Regulation

Under the Regulation, EU importers in the upstream section of the supply chain for these products will face mandatory due diligence. They must "do their homework" and take care that their materials are not financing conflict, nor mined with forced labour. The Regulation covers at least 95% of import volumes of the minerals and metals in scope, while excluding importers below a certain threshold as well as operators further downstream.

The Regulation draws on well-established rules laid out in the Organisation for Economic Co-operation and Development (OECD) Due Diligence Guidance and will apply as of 1 January 2021. EU importers will have to carry out their due diligence from that date. They are nonetheless encouraged to do so as soon as possible.

The Regulation aims to curtail the opportunities for armed groups and unlawful security forces to trade in these minerals and metals – as has in the past too often happened, in particular, in the Great Lakes region of Africa. It is designed to provide transparency and certainty as regards the supply practices of EU importers sourcing these minerals.

On the basis of the information disclosed, the European Commission will publish a list of the smelters and refiners concerned; EU member state authorities will then have to carry





out the oversight needed to ensure all importers in scope comply with the obligations set out by the Regulation. The Commission will continue to monitor this system to ensure it works effectively.

Trade supporting development

These new rules do not sit in isolation, but form part of an "integrated EU approach" to maximise their impact. That includes political, diplomatic and development cooperation measures to address the main dimensions of the problem.

A €20 million development aid package includes support for gold projects in West Africa through the EU's Foreign Policy Instruments, which will contribute to peace-building and stabilisation efforts in this mineral-rich and fragile zone; including in Burkina Faso, the Central African Republic and Côte d'Ivoire. As part of our work on development and external action, we will also support technical assistance, training and pilot interventions to strengthen the capacity of local actors. In line with the OECD's guidance, our approach is not limited to the Great Lakes Region, but embraces all conflict-afflicted areas.

The EU is at the forefront of promoting supply chain excellence and responsible sourcing. But, to effect a real change, our leadership needs to be echoed around the world. We are therefore taking this issue forward with our main trade partners, and have already seen countries like China moving in the right direction. Work is also ongoing with the governments of the Great Lakes Region itself: their commitment to 'responsible sourcing' is as vital as anything we can do. Moreover, we call upon all OECD members, as well as European and global industry, to actively push forward this agenda.

Globalisation should benefit us all. With the EU's approach on conflict minerals, we have proved that it is possible to shape change across the world and use trade as a vehicle for our values. ■

The views expressed herein are those of the author and do not necessarily reflect an official position of the European Commission.

References:

<http://ec.europa.eu/trade/policy/in-focus/conflict-minerals-regulation/>

About the author



Mrs Signe Ratso is Director of Trade Strategy and Analysis, Market Access, DG Trade, European Commission.
signe.ratso@ec.europa.eu

EU's ore and metal import flows and engagement towards responsible sourcing in industry supply chains

by Doris Schüler

Resource-rich countries and the EU are closely connected by complex raw material flows. This article shows the origin of EU metal imports and outlines the related EU responsibility for social and environmental impacts and a higher net-benefit for resource-rich developing countries.

Resource-rich countries and Europe's downstream companies are frequently connected by complex raw material flows. Highly import-dependent Europe, imports raw materials in different degrees of fabrication. In the metal sector, Europe not only imports large amounts of ores and concentrates, but also high amounts of refined metals, processed metal compounds and alloys, as well as intermediate and end products. This strong global interdependence calls for European's commitment for global responsible sourcing. It is a key driver for Europe's engagement and active roles for reducing adverse social and environmental impacts in global raw material supply chains and for supporting efforts to harness mining related developing potential.

Origin of EU ore imports

For the EU's supply of the base metals iron, copper, and aluminium (bauxite) and three further strategic metals (platinum, tin and lithium), Figure 1 indicates the global origin of EU imports and the global major mining countries regardless of their export destination. For iron, aluminium and copper, the figure shows the main origin countries of EU ore imports. For lithium, platinum and tin, which are mostly exported after a first processing stage, the figure shows the EU imports of the corresponding intermediate products at an early processing stage.

South America's mining sector faces a number of challenges, such as tailing dam bursts, water scarcity and local conflicts due to environmental pressure and socio-economic problems. In Africa, Guinea exports most of its bauxite to Europe and is thus the EU's main bauxite supplier. For other metals, other regions play a prominent role for EU imports, e.g. South Africa (platinum) and Indonesia (tin). Related challenges are issues of violent social conflicts (platinum from South Africa), maritime ecosystem degradation from offshore mining (tin from Indonesia) and missing links to local socio-economic development (bauxite from Guinea). Besides the outlined countries, further countries are relevant for the EU's ore and unwrought metal supply, e.g. Philippines (nickel), USA (zinc, molybdenum), Australia (zinc, titanium),

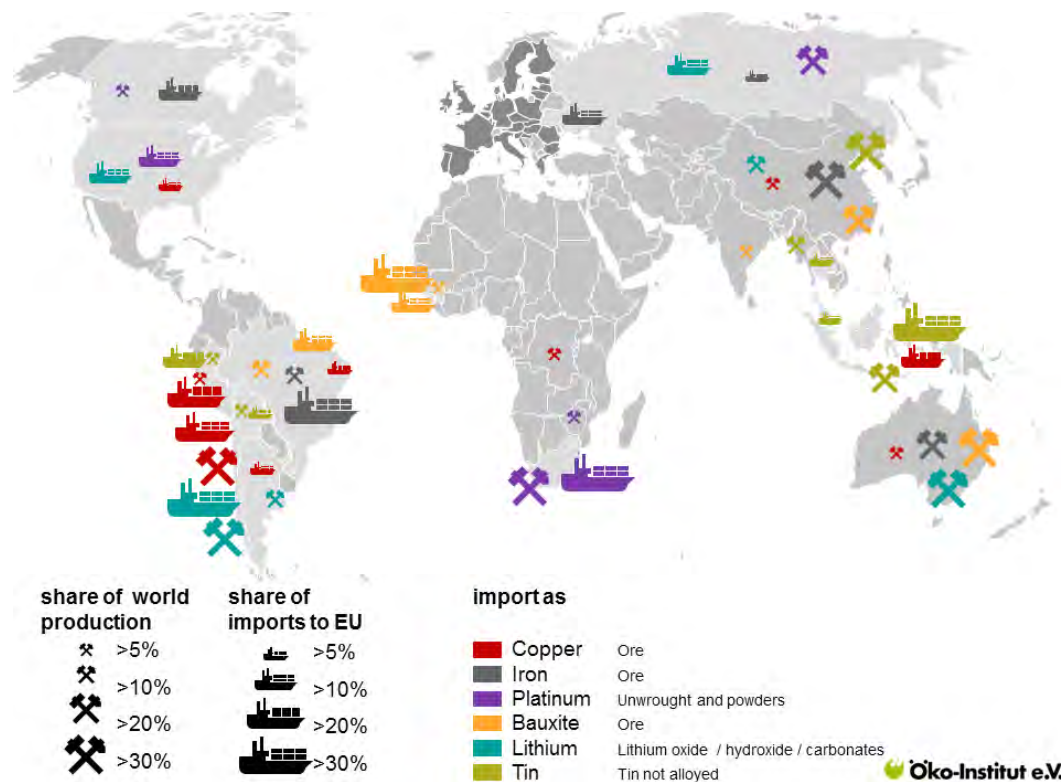
Bolivia (zinc), Turkey (magnesium), DRC (cobalt, tantalum, tin, gold), Gabon (manganese), Canada (titanium), India (titanium), Norway (titanium), and China (rare earths).

Figure 1 shows the outstanding role of just a few global mining regions for EU raw material supply of the six metals:

- South America – namely Chile and Peru – has a very high level of importance for global copper ore production and EU copper ore imports.
- South America is also the main region of origin for the EU's iron ore (Brazil) and lithium compounds (Chile) imports.
- Other globally important iron and lithium mining countries, namely Australia and China, are of negligible relevance for EU imports of these metals. China - with its high domestic demand - is the world largest iron ore importer; and Australia mainly supplies the Chinese market. The same is true for bauxite, with large mining activities in Australia and China.
- South Africa is a major supplier of platinum ores, globally and for the EU.
- The EU bauxite imports mainly come from West Africa, namely Guinea and Sierra Leone, though neither country is a major producer in global terms. Guinea contributes merely 7% of global bauxite production and Sierra Leone only around 0.4%. Nevertheless, Guinea is the world's fifth largest bauxite producer and second largest exporter (after Australia)
- Besides iron, copper and lithium, South America also exports tin and bauxite to the EU.
- Indonesia is the main EU tin supplier (as unwrought tin).

In summary, the analysis shows the high relevance of South America for the EU ore supply of the two mass metals iron and copper. South American countries further supply the EU with large amounts of lithium, which is becoming increasingly relevant with the higher demand for electric vehicles.

Figure 1: Major ore-producing countries and origin of EU imports of the six selected metals in their least processed form



Origin of EU imports of metals and products

The origin of EU imports of the six selected metals as refined metal or other intermediate products can be seen in Figure 2. Not surprisingly, a much higher number of countries are involved in the processing and manufacturing of metals than just in the mining business. Thus the supply chain becomes much more complex when moving from mining to refining and manufacturing. Likewise, there is a drastic shift in the involved regions.

As can be seen, the EU's metal consumption is closely linked to global mining and production activities. Besides the short connections via direct ore and concentrate imports, a considerable amount of imports stems from processing countries which themselves source at least some of the ores globally. China and Russia contribute significantly to this supply chain as well as various industrialised, emerging and developing countries.

Figure 2 particularly illustrates the following issues on the six selected metals:

- Though China does not export relevant amounts of ores or concentrates of the mass metals to Europe, it is a relevant exporter of iron products and a major exporter of aluminium and tin products as well as the main supplier of lithium primary cells to the EU. China sources its related ore demand mainly from domestic extraction and from imports from Australia (iron and aluminium), Brazil (iron), and Chile and Peru (copper).
- Russia is also a relevant exporter of iron, copper and aluminium products to the EU. It sources its iron and copper ores mainly from domestic extraction and imports from Kazakhstan.
- Some mining countries, e.g. Chile (copper), South Africa (platinum) and Indonesia (tin) refine and process a

large portion of their mined ores before exporting the unwrought metal or other intermediate products to the EU.

- Resource-rich industrialised countries Australia and Canada do not export relevant amounts of the six selected metals as products to Europe. The USA merely exports some platinum products and small amounts of lithium and tin products to the EU.
- Switzerland exports high amounts of platinum products to the EU28.

EU and EU member states engagement for responsible sourcing

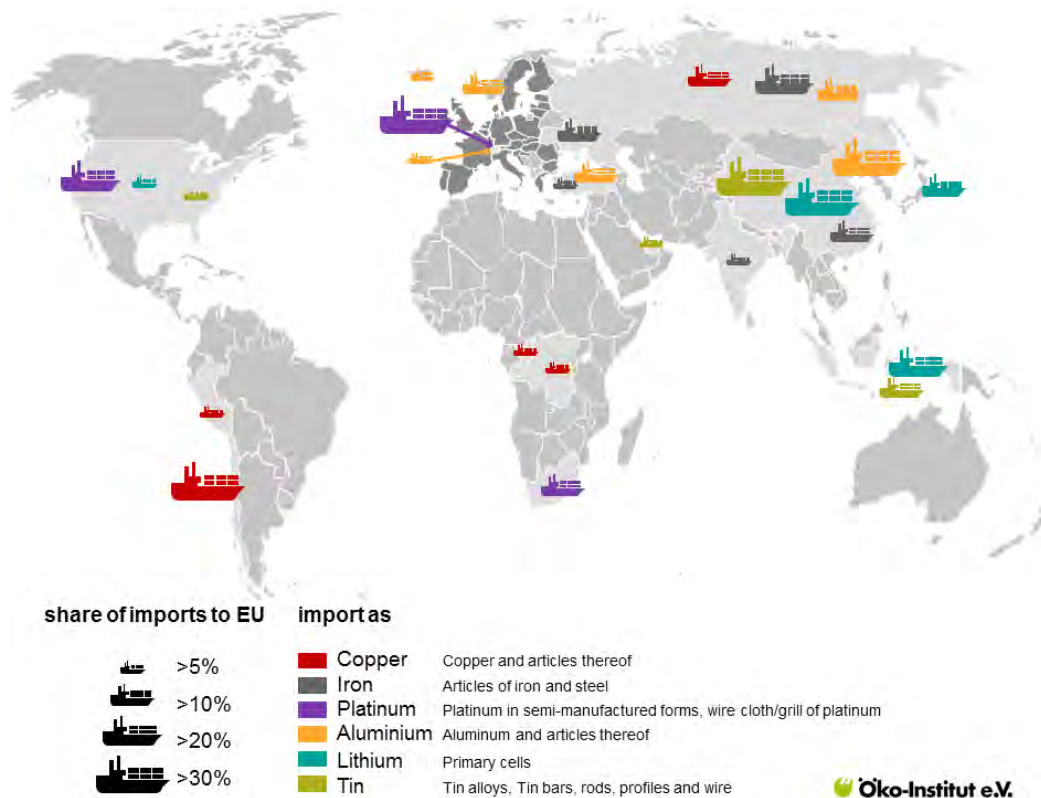
Recognising the close interrelationship of EU material flows and global mining and the economic importance of extractive industries in many world regions, and considering the fact that the EU is largely dependent on the import of minerals and raw materials, the EU committed itself to actively contributing to a more sustainable sourcing of raw materials from other world regions.

The engagement must comprise different foci. Firstly, activities aimed at mitigating the worst types of impacts, such as human rights abuses and extreme forms of environmental impacts, are essential. Important mitigation approaches include:

- supporting companies' due diligence activities;
- establishing a regulatory framework for supply chain management or establishing alternative efficient frameworks; the 2017 EU conflict mineral regulation only covers gold, tin, tantalum and tungsten; all other minerals are not covered by any regulation;

An EU engagement for socio-economic development based on developing countries' raw materials exports needs different instruments than for mitigating worst types of impacts.

Figure 2: Major countries exporting intermediate products to the EU



Particularly, the following approaches aim at a net benefit from mining in resource-rich countries:

- fair and ethical trade agreements and fair prices, aiming at higher revenues and added value in developing countries;
- supporting good resource governance;
- supporting combating tax avoidance and profit shifting;
- supporting resource-rich developing countries' industrialisation strategies;
- supporting R&D for improved mining and processing technologies; and
- development cooperation & support of mining countries in the fields of policy development and implementation, as well as technical and fiscal aspects.

This article draws from analysis under STRADE project, and in particular STRADE Policy Brief No. 02/2017 and Policy Brief 01/2017, available at <http://www.stradeproject.eu/index.php?id=7>

The European Horizon 2020 project STRADE (Strategic Dialogue on Sustainable Raw Materials for Europe) team will explore in upcoming dialogues how an alternative systematic 'towards contribution' policy can complement raw material policies, which currently strongly focus on supply security and free access to markets. STRADE seeks to learn from past failures to develop new approaches that consider the interests of investors, companies, governments and local communities.

A comprehensive EU raw material policy, which includes responsible mining and fair trade schemes in its contribution to the Sustainable Development Goals (SDGs) as a foundation of its raw material sourcing and supply security, must go beyond the current development assistance, transparency legislation or legal response to conflict minerals. It must further consider the whole range of socio-economic challenges. ■

About the author



Dr Doris Schüler is Coordinator of the European Horizon 2020 project STRADE (Strategic Dialogue on Sustainable Raw Materials for Europe) at the Oeko-Institut e.V. Institute for Applied Ecology, Darmstadt, Germany.

A high price for cheap electronics

by Théo Jaekel

Though an important step in the right direction, the accompanying measures to the EU Regulation on the responsible sourcing of minerals from conflict affected and high-risk areas risk failing to adequately tackle challenges on the ground in source countries.



Gold from eastern Congo. Photo Sasha Lezhnev, Enough Project/ Flickr

Minerals and metals such as tin, tantalum, tungsten and gold (3TGs) are used for vital components in everyday products such as laptops, mobile phones and cars. These minerals, and many others, are to a large extent mined in conflict-affected or high-risk areas such as Afghanistan, the Central African Republic (CAR), Colombia, the Democratic Republic of Congo (DRC), and Myanmar. In many cases, armed groups control the extraction and trade of minerals in order to finance their operations. This illicit trade contributes to violent conflicts and severe human

rights violations. The above-mentioned minerals have therefore been classified as 'conflict minerals'.

The conflict in the DRC has claimed the lives of millions, many from disease and starvation, and approximately 2.8 million people remain internally displaced and some 450,000 have become refugees. Preventing illicit trade of conflict minerals is a necessary step in preventing continued human rights violations.

In December 2015, when negotiations on the European Union (EU) Regulation on the responsible sourcing

of minerals from conflict affected and high-risk areas were still ongoing, I was part of a research team that went to eastern DRC in order to better understand challenges and needs of the people most affected by the extractive industry in the country. This article tells that story.

Voices from the DRC

Both the North and South Kivu provinces in eastern DRC are mineral-rich regions where 3TGs are mined extensively. The mining sector relies heavily on artisanal mining. Approximately 80–90% of mining

activities in the region are small-scale, and 500,000–2 million workers are engaged in the sector. The industry generates an economy vital to local communities, as the miners provide income for between 2.5–9 million people. A well-functioning and legal artisanal mining sector is therefore vital for the development of the country.

Dr. Nene Morisho at Pole Institute explained, during a visit to the organisations offices in Goma, North Kivu, that the suspension of artisanal mining, enacted by the Congolese government in 2010, hit the industry hard and had serious socio-economic effects. Many labourers suddenly lost their income and were therefore unable to support their families. School dropout rates went up and robberies increased in the region. Furthermore, the amount of minerals smuggled and illegally traded increased. The suspension was counterproductive and had to be lifted after six months.

Currently, under Congolese law, only minerals from validated so-called 'green mines' can be legally traded. When local authorities have surveyed a mine and classified it as green, a bag-and-tag system is put in place in order to trace the minerals from mine to export. Each link in the chain - the miners, the local agents and the traders - carefully weigh the bags of minerals, and are then provided with a tag from the validation authority. The tag contains a barcode, which in turn is validated by the next link in the supply chain. So far there is no tractability system for gold, only for 3T minerals.

Safanto Bulongo, the civil society representative of the provisional authorisation committee in South Kivu, explained during a meeting in Bukavu that the problem with the bag-and-tag system is that at each stage, the bags are reopened in order to check the

quality of the minerals and a new tag is applied. Consequently, at each stage of the chain, there is a risk of minerals from non-validated sites getting mixed in with legal minerals. Also, because of widespread corruption, buying a validated tag from the local authorities has become common practice

Maitre Bundibulya, Legal Counsel to the Minister of Mines in South Kivu and Chair of the provisional authorisation committee, moreover emphasised the lack of capacity of the local authorities, such as the committee itself. Due to insufficient funding the committee had, at the time, validated only 46 out of approximately 900 mines in the province.

Even though the new tagging system is a welcome improvement by the industry, the challenges mentioned by both Mr Bulongo and Mr Bundibulya were also echoed by Basimine Dieudone, President of the Bukavu Traders' Association. The association buys minerals from local traders and sells them for export. Mr Dieudone confirmed that agents and traders mix illegal minerals with legal, and stressed that the 46 validated mines cannot meet the demand.

During the trip to the DRC, our research team also visited several mining sites in both Kivu provinces. The mines are located in remote areas in the countryside and getting there requires hours of driving on narrow dirt roads, which have a tendency to collapse due to landslides and heavy rain. The last parts of the roads are often accessible only on foot.

Depending on the mineral mined at the specific location, the mines can both take the form of open pit mining or narrow shafts in the mountainside up to ten meters deep, where ore is extracted. The number of artisanal miners at the sites also varied, from up to 6,000 at

peak season at one of the mines to 10-15 at another.

Due to mostly manual labour, work-related injuries such as broken fingers and blast-related injuries are common. Digging for ore in the narrow shafts is even more dangerous due to the shafts barely fitting one worker at a time and heavy rocks being supported only by flimsy pieces of wood. Cave-ins are a common cause for injuries and even death.

The heavy work takes its toll on the labourers. Several of the interviewed miners told of difficult conditions and that the body can only take about ten years in the mine. The workers therefore are heavily dependent on their children eventually taking up work in the mines in order to be able to support the parents when the body cannot manage the heavy manual work anymore.

Moreover, besides work-related issues, the presence of armed groups is a severe safety risk for the mine workers. Remote mining sites are prone to attacks and extortion by armed forces. Both rebel groups and the Congolese military intimidate miners. The interviewed miners often faced extortion from armed groups, demanding food, bribes or everything the workers had mined that day.

Local mining company officials, who chose to remain anonymous due to safety reasons, emphasised that the companies themselves cannot put a stop to the presence of armed groups at the mining sites. It is simply too dangerous.

Another challenge for the mining companies is smugglers. The company officials estimated that around 30% of the minerals mined at the sites are smuggled by artisanal miners across the border to Rwanda, and later sold as Rwandan origin, in order to receive a better price.

The need for strong and effective accompanying measures to the EU Regulation

The challenges in the mining sector in the DRC are widespread and complex. Dealing with the many issues requires a comprehensive approach and all actors in the supply chain to take responsibility. NGOs and experts have at several occasions pointed out severe flaws in the EU Regulation itself, such as only covering a fraction of the imports of minerals by only requiring upstream companies to conduct due diligence, the counterproductive proposed indicative list of conflict-affected and high-risk areas, risks of the White List leading to whitewashing of a considerable number of companies where due diligence practices are not at all or not adequately evaluated, and too high annual thresholds for exemption from the due diligence requirements.

As these issues have been comprehensively debated, this article rather highlights gaps in the proposed accompanying measures to the Regulation. In order to prevent illicit trade of conflict minerals more is needed than the weak Regulation, and this is where the accompanying measures play an important role. Even though the proposed measures are a welcome complement to the Regulation, there are several issues that need strengthening and clarification in order to effectively deal with the complex challenges on the ground.

One of the main challenges identified is widespread corruption in the DRC and therefore a lack of reliability of the tagging system in place. Moreover, the lack of traceability systems for gold makes it even more difficult to determine the origin. The accompanying measures should therefore include a clear commitment to combating corruption and mining fraud, strengthening

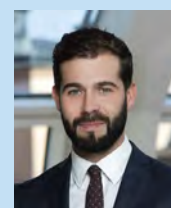
capacity of local authorities, establishment of alternative traceability systems for 3Ts and a system for gold.

Furthermore, the importance of the artisanal mining sector needs increased focus in the accompanying measures by supporting the formalisation of the sector, securing its coexistence with the industrial mining sector. Artisanal mining sites also need support in the process of certification in order to meet due diligence standards.

A crucial issue is to properly involve local actors. The accompanying measures adopt to a large extent a top-down approach working through the OECD, International Conference of the Great Lakes Region, United Nations agencies and the central government. Non-state actors such as mining cooperatives and civil society have real expertise in the artisanal mining sector and need support in their advocacy and training work.

These are just a few of the crucial issues that need to be addressed in order to meet ambitions and stem the illicit trade of conflict minerals. Due to the mentioned flaws in the Regulation itself, the accompanying measures become an even more crucial instrument to enact real change on the ground. If the EU fails in this regard the mine workers will continuously be the ones paying the price for cheap electronics. ■

About the author



Théo Jaekel is Senior Specialist: Human Rights and Supply Chain, Vinge Law Firm.

The Weekly Compass



Want to know the direction in which development cooperation is sailing? Stay informed of all the latest news on EU-Africa and EU-ACP development cooperation with the ECDPM Weekly Compass (WECO) Newsletter.

Video: Gerald Abila shares his story – How BarefootLaw brings access to justice to the people of Uganda: Addressing Africa’s Demographic Dividend

Weekly Newsletter, 26 June 2017

On 21 June, the founders of BarefootLaw, winners of the King Baudouin African Development Prize, joined us at ECDPM to share their story and discuss the role of young people in shaping Africa’s future. In a video interview ahead of the seminar, Gerald Abila explained how BarefootLaw brings access to justice to the people of Uganda.

ECDPM and the Institute for Peace and Security Studies sign Memorandum of Understanding

Weekly Newsletter, 26 June 2017

Last week, ECDPM and the Institute for Peace and Security Studies (IPSS) in Addis Ababa, Ethiopia, formalised the signing of a Memorandum of Understanding (MOU), to strengthen future collaboration on research and policy dialogue in the field of peace and security.

ECDPM and IPSS have enhanced their collaboration this year, with the joint execution of the APSA Impact Assessment project at IPSS in Addis Ababa, with the presence and support of ECDPM’s Security and Resilience team, led by Sophie Desmidt. This project assesses the interventions of the African Peace and Security Architecture in violent conflicts across Africa.

The impact of Economic Partnership Agreements on the development of African value chains

Weekly Newsletter, 19 June 2017

The Economic Partnership Agreements (EPAs) concluded by the European Union (EU) with regional blocs of African countries (and certain individual African countries) are supposed to do more than just boost trade between the EU and African countries. They are meant to promote sustainable development and poverty reduction, including through supporting regional integration

processes in Africa, promoting the gradual integration of African economies into global markets and enhancing African countries’ ability to leverage trade opportunities for economic growth. Given the internationalisation of production processes, with 70% of global trade involving intermediate goods or services, increased participation in regional and global value chains has become a crucial part of African countries’ economic transformation and sustainable development strategies.

European Development Days 2017 – ECDPM’s highlights

Weekly Newsletter, 19 June 2017

During the 2017 edition of the European Development Days (EDD17), we had the opportunity to meet a range of different actors and learn about several projects and initiatives from the field of development and international cooperation. In this short video, we present the highlights of ECDPM’s participation in the EDD17 ahead of releasing the interviews that we conducted with stakeholders like MEP Judith Sargentini and Klaus Rudischhauser, Deputy Director General, DG International Cooperation and Development (DEVCO) of the European Commission.

Tunisia’s decentralisation process at a crossroads

Weekly Newsletter, 29 May 2017

Without a new decentralising framework, elections for new local councils in Tunisia will not make them more responsive to local concerns. In this blog, originally published by Carnegie, Tasnim Abderrahim explains why.

Shafik Sarsar’s resignation as head of Tunisia’s Independent High Authority for Elections (ISIE) on 9 May, together with two other board members, cast the authority’s decision to hold the next municipal elections on 17 December 2017 into further doubt. After delaying it twice, ISIE was able to finalise the date – a reference to the start of Tunisia’s 2011 revolution – after the long-awaited Law on Local and Regional Elections was adopted on 31 January 2017. More significantly, uncertainty over whether the Code on Local Authorities will be adopted before the elections further calls the date’s viability into question.

Talking Points

Our blogs aim to deepen the dialogue on policy issues and get to the heart of the matter in an honest and concise way.



Time to move to an interest-driven Africa-EU political partnership (part two).

Talking Points, Geert Laporte, 26 June 2017.

In his second blog on EU-Africa relations, Geert Laporte proposes eight measures for Europe and Africa to build the strong partnership that everyone seems to want. But is everyone willing to support the tough decisions that these measures would entail?



Time to move to an interest-driven Africa-EU political partnership (part one).

Talking Points, Geert Laporte, 19 June 2017

In the first of a two-part blog series, our Deputy Director Geert Laporte takes a critical look at the state of the Africa-Europe partnership and the Joint Communication, and gives an answer to the question that the document did not even dare to ask: why is this partnership not delivering the desired results?



UK election and Brexit: No clarity in sight for development and trade

Talking Points, Andrew Sherriff, 11 June 2017

The UK's Prime Minister Theresa May's gamble on increasing her parliamentary majority and – in her mind – getting a stronger mandate for Brexit negotiations from the UK electorate has backfired spectacularly. Theresa May's own authority has been seriously, and some would say fatally, damaged.



Rethinking Germany's peace policy: From crisis management to sustainable peace?

Talking Points, Matthias Deneckere and Andrew Sherriff, 9 June 2017

Violent conflict at Europe's doorsteps, record levels of forced displacement and a concentration of poverty in fragile states have shown the importance of building sustainable peace. At the same time, global power shifts and the rise of populism and nationalism are just a few illustrations of a world in transition where existing institutions, norms and practices are increasingly questioned. It is not yet clear what impact these changes have on the political and financial support to peacebuilding. This is why ECDPM is currently conducting a study to investigate the changing environment for peacebuilding in Europe.

Latest ECDPM publications



Woolfrey, S., Bilal, S. 2017. The impact of Economic Partnership Agreements on the development of African value chains: Case studies of the Kenyan dairy value chain and Namibian fisheries and horticulture value chains. (Discussion Paper 213). Maastricht: ECDPM.

The Economic Partnership Agreements (EPAs) concluded by the European Union (EU) with regional blocs of African countries (and certain individual African countries) are supposed to do more than just boost trade between the EU and African countries. They are meant to promote sustainable development and poverty reduction, including through supporting regional integration processes in Africa, promoting the gradual integration of African economies into global markets and enhancing African countries' ability to leverage trade opportunities for economic growth. Given the internationalisation of production processes, with 70% of global trade involving intermediate goods or services, increased participation in regional and global value chains has become a crucial part of African countries' economic transformation and sustainable development strategies. It is therefore relevant to consider how EPAs might affect the ability of African producers and services providers to integrate into such value chains.



Knoll, A., Rampa, F., Torres, C., Bizzotto Molina, P., Cascone, N. 2017. The nexus between food and nutrition security, and migration: Clarifying the debate and charting a way forward. (Discussion Paper 212). Maastricht: ECDPM.

Migration is fast becoming a key topic in development cooperation. International development efforts, especially in Europe, are increasingly directed towards addressing the 'root causes of migration' in an attempt to curb flows from Africa. In this context, a particular attention has been given to the relationship between food security and migration. However, an overly simplistic interpretation of this nexus – i.e. investing in agriculture and rural development will significantly reduce migration from rural areas – risks instrumentalising development cooperation for 'securitarian' purposes instead of pursuing genuine objectives for food and nutrition security (FNS) and rural development.

Jobs@ECDPM:

Check our latest vacancies at www.ecdpm.org/jobs

- **Senior Policy Officer in International Cooperation in the European External Affairs Programme**
- **Policy Officer I in International Cooperation in the European External Affairs Programme**

Next issue of **GREAT Insights:**
Sustainable Food Systems
September 2017, Volume 6 - Issue 4

To subscribe to **GREAT Insights** or other
ECDPM publications go to:
www.ecdpm.org/subscribe
To read previous issues of **GREAT Insights**,
go to www.ecdpm.org/GREAT