

United Nations Conference on Trade and Development

**MULTI-YEAR EXPERT MEETING ON COMMODITIES AND DEVELOPMENT**

**21-22 April 2016, Geneva**

**Primary commodity sector and trade policies**

By

Ms. Lahra Liberti, Head,  
Natural Resources and Development Unit,  
Organization for Economic Cooperation and Development

The views expressed are those of the author and do not necessarily reflect  
the views of UNCTAD.



# Framework on Public-Private Collaboration for In-Country Shared Value Creation from Extractive Projects



## Context

At the Second Plenary Meeting of the Policy Dialogue on Natural Resource-based Development held on 3-4 June 2014 at the OECD in Paris, participating governments, industry and civil society, converged around the common objective to use natural resources to build competitive and long-term sustainable economies, fostering direct employment and local entrepreneurship through the provision of goods and services, while ensuring that producing economies do not become solely reliant on non-renewable natural resources, but develop other sectors or segments of production that can support the creation of a diversified economy.

Participants identified lack of mutual trust, asymmetry of information and insufficient collaboration and coordination among all actors involved as major impediments to in-country shared value creation. They emphasised the need for improved understanding of how host governments, the private sector, local communities and civil society organisations can work together and leverage the extractives sector to catalyse long-term, competitive, diversified and, sustainable development. More than the choice of policy instruments, this calls first for the articulation of the appropriate processes and mechanisms to facilitate alignment across different constituencies around priorities and objectives for generating tangible benefits across all stakeholders involved. Constraints to in-country shared value creation identified through the process (lack of skills, insufficient technological and financial capabilities, inadequate local infrastructure, and weak local institutions, etc.) can only find an adequate response in long-term collaborative solutions with a clear attribution of roles and responsibilities, and continuous engagement of all stakeholders involved.<sup>1</sup>

A multi-stakeholder Drafting Committee was established in January 2015 to develop operational guidance. The Drafting Committee comprised Liberia and Norway as co-chairs, Switzerland, South Africa, the African Union Commission, Anglo American, Antofagasta Minerals, the Chilean Mining Council, the Columbia Center on Sustainable Investment, Eni, Exxon Mobil, the International Council on Mining and Metals (ICMM), the International Petroleum Industry Environmental Conservation Association (IPIECA), Shell, Social Clarity, and Total. The OECD Development Centre supported the drafting process and served as Secretariat.

The *Framework* articulates the sequencing of actions required to enable integrated policy making alongside formulation and implementation of collaborative strategies for in-country shared value creation. It defines the roles and responsibilities of host governments and extractives industries supportive of shared governance mechanisms designed to improve efficiency, foster participation, and mutual accountability.

Earlier drafts of the *Framework* were discussed during the Multi-Stakeholder Consultations of the Third, Fourth and Fifth Plenary Meetings of the Policy Dialogue on Natural Resource-based Development held on 17 November 2014, 29 June and 2 December 2015 at the OECD in Paris.

---

1 . This approach echoes the conclusions reached in OECD work on localisation barriers to trade: “[t]he barrier should be identified as part of a collaborative effort between government, industry, and other private organisations. The key factor is that the measure is directed at resolving the barrier to development, and not at distorting prices. Policies applied horizontally across the economy aim at providing the best possible environment to expand along existing areas of comparative and competitive advantage. [...] Institutions can be developed that are embedded within the market to overcome the information barrier, while strong public accountability and transparency regimes mitigate the risk of corruption and rent-seeking behaviour.” Stone, S., J. Messent and D. Flaig (2015), “Emerging Policy Issues: Localisation Barriers to Trade”, OECD Trade Policy Papers, No. 180, OECD Publishing, Paris. <http://dx.doi.org/10.1787/5js1m6v5qd5j-en>, pp.70-71.

The *Framework* also reflects and builds on comments received during the public consultation run from 15 September until 30 October 2015.

To find out more about OECD work on natural resource-based development, please consult: <http://www.oecd.org/dev/natural-resources.htm>

© OECD 2016

This document is a draft prepared by the OECD Secretariat. It does not necessarily reflect the views of the OECD or those of its member countries. This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

## FRAMEWORK ON PUBLIC-PRIVATE COLLABORATION FOR IN-COUNTRY SHARED VALUE CREATION FROM EXTRACTIVE PROJECTS

The *Framework* is an operational tool offering guidance on proposed actionable steps for harnessing non-renewable natural resources to build competitive, diversified, and sustainable economies in a scalable manner. It is addressed to governments, industry, and civil society clearly articulating their respective roles for improved collaboration, mutual respect and accountability.

The *Framework* transcends sectoral boundaries and is based on the recognition of the inter-linkages between several policy dimensions and associated trade-offs, as well as the interdependent and often competing use of natural resources (energy, land, minerals, and water). It focuses on strategies to inform more integrated policy-making, and suggests monitoring and evaluation mechanisms to assess progress and impact over time.

The *Framework* is designed to foster coherence, sequencing, effective coordination and public-private partnerships that support progress towards more sustainable paths for access to and use of non-renewable natural resources, fostering innovation that enables shared benefits (alongside efficiency and security of supply), smoothing the transition towards future prosperity and a sustainable development trajectory that will outlast non-renewable resource extraction.

The *Framework* presents a practical guide on how host governments, extractives industries and civil society can work together in a structured and systematic way to enable in-country shared value creation. It offers a tool for forging a public-private alliance which can be used to advance the *2030 Agenda for Sustainable Development* adopted by the United Nations in September 2015, and, in particular, support the achievement of Sustainable Development Goals 8 (Promote inclusive and sustainable economic growth, employment and decent work for all) and 9 (Build resilient infrastructure, promote sustainable industrialization and foster innovation), and contribute to Goals 6 (Ensure access to water and sanitation for all) and 7 (Ensure access to affordable, reliable, sustainable and modern energy for all).<sup>2</sup>

The *Framework* will be complemented by an on-line Compendium of Practices and useful sources. This will provide practical examples of how the proposed action-oriented steps can be translated into tangible and collaborative solutions that can be replicated or adapted to different contexts. Cooperation generates trust, improves predictability, and will yield sustainable outcomes. The Framework will also be used as a reference and diagnostic tool to carry out Country Reviews on Resource-based Value Creation.

The *Framework* and its scope will be reviewed by the OECD and its non-member partners and stakeholders based on experience with its use and country analysis to strengthen its effectiveness over time.

*For the purpose of this Framework the following definitions apply:*

**Natural Resources:** The term "natural resources" designates renewable and non-renewable resource stocks that are found in nature (mineral resources, energy resources, soil resources, water resources and biological resources). Natural resources are commonly divided into non-renewable and renewable resources.<sup>3</sup>

---

2. *Transforming our world: the 2030 agenda for sustainable development*, adopted by the United Nations General Assembly on 25 September 2015 (resolution A/RES/70/1), available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>.

3. OECD (2015), "Glossary", in *Material Resources, Productivity and the Environment*, OECD Publishing. <http://dx.doi.org/10.1787/9789264190504-16-en>.

**Renewable natural resources:** Renewable natural resources are resources from renewable natural stocks that, after exploitation, can return to their previous stock levels by natural processes of growth or replenishment. Conditionally renewable resources are those whose exploitation eventually reaches a level beyond which regeneration will become impossible. Such is the case with the clear-cutting of tropical forests. Examples of renewable resources include timber from forest resources, surface and rainwater, land resources, wildlife resources such as fish, and agricultural resources.

**Non-renewable natural resources or extractives:** Non-renewable natural resources are exhaustible natural resources whose natural stocks cannot be regenerated after exploitation or that can only be regenerated or replenished by natural cycles that are relatively slow at human scale. Examples include metals and other minerals, such as industrial and construction minerals, groundwater in confined aquifers, and fossil energy resources, such as oil and natural gas.<sup>4</sup> In this document non-renewable natural resources are also referred to as extractives.

**Local content** (also referred to as “*National Content*” or “*Name of country or other geographic area Content*”) is generally understood to be the local resources a project or business utilises or develops along its value chain while investing in a host country. This may include employment or inputs, goods and services procured from local sources, locally hired workforces, operations carried out in partnership with local entities, development of enabling infrastructure, the improvement of domestic capacity, or the improvement of local technological capabilities.

**Local content requirements** refer to obligations related to Local Content enshrined in laws or included as part of licensing, procurement agreements or other contracts.

**In-country Shared Value Creation** means innovation by business, governments, and non-profit organisations working collaboratively and strategically to find areas where core business operations on commercial terms can create shared benefits with scalable development impact. Value is understood as a holistic concept encompassing financial, economic, social, cultural, and environmental dimensions. Shared value means the simultaneous realisation of mutual benefits and new value created for all stakeholders involved. In-country value is wider in scope than ‘Local Content’, as it implies taking advantage of any opportunity for creating synergies with existing operations.

**Stakeholders** refers to the multiplicity of relevant individuals or groups at the international, national, regional and local level that have an interest in or that are involved, impacted or otherwise directly or indirectly affected by the extraction, exploitation, transport, transformation and trade of natural resources.

**STEP 1 - Adopt a comprehensive long-term vision and implementation strategy to build competitive and diversified economies and create in-country shared value out of natural resources.**

*It is the responsibility of governments to commit to good governance to ensure transparency, accountability, and macroeconomic stability, social cohesion, and upholding of the rule of law, which are pre-conditions for sustainable development. Governments set out their expectations of the extractives sector and its contribution to the achievement of long-term strategic goals, and articulate appropriate policies in support of sustainable development. Political leadership should first ensure a coherent, comprehensive “whole-of-government” approach to in-country shared value creation. While ownership should reside in government to ensure clear accountability, the governance of the strategy should be more inclusive and involve government as well as non-government stakeholders.*

---

4. OECD (2008), Measuring material flows and resource productivity: The OECD Guide, [www.oecd.org/environment/indicatorsmodelling-outlooks/MFA-Guide.pdf](http://www.oecd.org/environment/indicatorsmodelling-outlooks/MFA-Guide.pdf)

### 1 A. What can host governments do:

- Articulate a vision for extractives industries and their role in the economy in terms of their contribution to economic, social, and environmental development. The vision should factor in long term trends (e.g. cycles of commodity prices, demographics, climate change, water availability and demand as well as other potential changes of circumstances).
- Apply practical mechanisms to ensure internal alignment and effective coordination among government agencies at all levels of government (ministries, regional and local authorities) in order to ensure coherence across sectoral policies, and develop and achieve long-term objectives and goals for in-country shared value creation. Coordination is crucial not only across the ministries and agencies overseeing the extractives sector but, more widely, with ministries and agencies responsible for related issues such as education, employment, environment, anti-corruption, innovation, industrial development, natural resources, planning, trade, transport and infrastructure, land ownership.
- Limit 'rent-seeking'<sup>5</sup> opportunities that could arise from the exercise of gate-keeping function and discretionary decision-making powers by public officials by eliminating unnecessary or excessive regulation, limiting the exercise of discretion and ensuring a transparent decision-making process thus facilitating market entry and competition.
- Implement counter-cyclical macro-economic policies to avoid risk of Dutch disease<sup>6</sup>, saving during commodity booms and building the foundations of a diversified, post-resource economy since the very beginning.
- Build knowledge on resource endowments and assess impact of resource development projects on environment, safety, health and security.
- Develop sustainable options for energy production and consumption, also assessing trade-offs and combined use of renewable and non-renewable resources.
- Consider, where appropriate, the opportunity to adopt risk-sharing mechanisms and increase responsiveness of fiscal regimes to changing circumstances and address the problem of the

---

5 . 'Rent-seeking' is generally understood as an attempt to obtain economic rent by manipulating the social or political environment in which economic activities occur, rather than by creating new wealth. One example is spending money on political lobbying in order to be given a share of wealth that has already been created (<http://thelawdictionary.org/rent-seeking/>). See also Khan, M. (2000) "Chapter 1. Rents, Efficiency and Growth" and "Chapter 2. Rent-Seeking as Process" in *Rents, Rent-Seeking and Economic Development: Theory and Evidence in Asia*. Khan, M. and Jomo K. ed. Cambridge: Cambridge University Press: "Rent-seeking is the expenditure of resources and effort in creating, maintaining or transferring rents. These expenditures can be legal, as with most forms of lobbying, queuing, or contributions to political parties. But they can also be illegal, as in the case of bribes, illegal political contributions, expenditures on private mafias, and so on. The processes are of tremendous significance because the resources they use up are a social cost, and they determine the types of rents which are created and maintained in a particular society".

6 . 'Dutch disease' is related to the strong upward pressure that natural resource revenues can place on the national currency and domestic prices, particularly in the context of large windfalls and strong global demand. The inflationary pressure from natural resource production can constrain the competitiveness in global and regional markets of other sectors of the economy, such as manufacturing and agriculture. This distorts the economy and limits potential diversification, which may provide greater opportunities and a broader base for socio-economic development.

obsolescence bargain to improve predictability, reduce pressure for re-negotiation, and incentivise investments.

- Transparently report on extractives resource revenue collection, allocation and use, and relevant aspects of in-country shared value creation.
- Enhance economic competitiveness by effectively managing the revenue and spending from and for extractives. In particular, re-invest resource revenues in other sectors to foster diversification efforts and improve capacity to compete in segments of higher value added, with a view to avoiding exacerbating dependence on exports of raw materials.
- Understand the extractives industry, its production and market structure and consider where the country can position itself well along regional and global value chains. Look at opportunities that serve more than the extractives sector.
- Consider the inherent uncertainty around key variables affecting the extractives industries' performance (price, cost and volume) in establishing a programme and pace of development of local content, which are to be sustainable through these inevitable market fluctuations.
- Manage stakeholder expectations and communicate effectively, including by clearly articulating benefits that can realistically be achieved during the life cycle of a project.
- Develop mechanisms to foster participatory processes, designed to promote mutual understanding, prevent conflicts and litigation, overcome distrust and strengthen collaboration. Establish effective grievance and dispute resolution mechanisms to solve and avoid escalation of issues that may arise.
- Encourage, where relevant, donors, international financial institutions and other development partners to align their programming in areas that can support sustainable, competitive and diversified economies.

**1 B.** *What can extractives industries do:*

- Take a long-term approach and identify opportunities to align business interests and plans with national development objectives.
- Transparently report payments made to governments.
- Identify areas for pre-competitive collaboration with industry peers and stakeholders, including major contractors<sup>7</sup> and suppliers (e.g. collective identification of skills requirements and solutions to common environmental challenges).
- Engage with relevant stakeholders in order to provide meaningful opportunities for their views to be taken into account in relation to planning and decision making for projects, or other activities, that may significantly impact resource-bearing communities.<sup>8</sup>

---

7 'Contractors' is understood as an all-inclusive notion encompassing all entities with whom extractive companies enter into a contractual relationship. In the oil & gas industry, major contractors mainly refer to engineering, procurement and construction (EPC) and maintenance service contracts.

8. OECD Guidelines for Multinational Enterprises, Chapter II, Paragraph A14. See also OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractives Sector (final draft available at <http://www.oecd.org/daf/inv/mne/OECD-Guidance-Extractivess-Sector-Stakeholder-Engagement.pdf> )



- Understand local dynamics and power structures in resource-bearing communities, and engage with a broad range of local community stakeholders to maintain a constructive dialogue and avoid inadvertently fuelling existing local tensions.
- Assess the quality and quantity of the natural resources, ease of access, and available reserves.
- Share best practices developed in other contexts and sectors on how to generate in-country shared value.

**1 C.** *Host governments, extractives industries and civil society can work together to:*

- Build inclusive fora for continuous dialogue where consensus can emerge over the overarching role for the extractives sector and its contribution to the country's overall economic, social and environmental development. Having a wide variety of inputs is integral to develop a comprehensive and coordinated growth strategy that is resilient enough to withstand the cyclical nature of commodity markets, and the potentially distortionary impact of rapid and unbalanced growth.
- Forecast the necessary infrastructure and capacity that must exist, or be built to effectively achieve the final extraction phase. Anticipate future utilisation demands, as well as the cumulative effects and impacts of developments to maximise positive outcomes.
- Identify opportunities to which business activities can make a significant positive contribution, including through the promotion of forward and backward linkages with the rest of the economy to foster diversification and avoid the creation of extractives enclaves.

**STEP 2 - Build an empirical basis to inform decision-making through an inclusive participatory process**

*As demand for workforce, goods, services and other inputs varies significantly over the life cycle of extractives sector projects, building a common understanding of the local context, as well as the needs, inputs, pace and scheduling of projects is crucial to leverage the potential for maximising socio-economic benefits. Informed decision-making can only occur if it is based on an accurate assessment of local economic conditions, capacity and priorities. This can be done by undertaking an early collective assessment of the sector's needs, opportunities for building complementarities with other sectors; identifying systemic linkages between productive activities and existing gaps to determine where and how value can be created. Preliminary screening and data collection should inform any course of action, including choice of appropriate policy measures and instruments to promote in-country shared value creation. Capacity constraints define the level of benefits that can be captured at a given point in time.*

**2 A.** *What can host governments do:*

- Serve as conveners and identify the stakeholders to be involved: central government agencies, regions, municipalities, upstream, midstream and downstream industry, chambers of commerce and industry associations, workers (including local and migrant workers) and trade unions, entities related through a business relationship (suppliers, contractors, shareholders), research institutes and universities, centres of excellence, training institutions, trade unions, local and affected communities (e.g. communities living downstream from a river near the site, or along a transport route), civil society, and vulnerable groups, such as indigenous peoples and women. In order to do so, where appropriate, design mechanisms viewed as credible by stakeholders.

- Obtain sufficient support from the start, by giving due consideration to interests and concerns across different constituencies, thus creating the conditions for proactive interventions and reducing potential situations of conflict by supplying early information.
- Identify trade-offs and associated costs/benefits, such as the potential impacts of the extractives sector's demand of workforce, goods and services, on and from other industries, and public works projects.
- Consider the full life cycle of natural resource developments and their value chains when identifying in-country shared value opportunities.
- Classify systemic value chain links to show the nature of potential interconnections with other products and services in the renewable and non-resource sectors to identify segments with high growth potential. Take appropriate measures so that the extractives sector becomes a catalyst and an anchor for growth, diversified economic activity, and integrated territorial development, creating linkages through which knowledge, inputs, and labour can flow.
- Recognise that there may be areas of value creation beyond early reach, dependent on the type of resource, the maturity of the sector, the level of industrialisation and, more generally, the stage of development of the economy.
- Collect and aggregate the extractives sector's current and future needs, in terms of demand for workforce, goods and services, infrastructure and use of other inputs (such as energy, land and water).

**2 B.** *What can extractives industries do:*

- Provide information on an individual basis (to avoid any anti-competitive issues) to governments on future demand for workforce, goods, services, infrastructure, technologies, and other inputs (such as land, water and energy) along the project lifecycle.

**2 C.** *Host governments, extractives industries and civil society can work together to:*

- Once aggregated by the government, assess the extractives sector's collective current and future needs, in terms of demand for workforce, goods and services, infrastructure and use of other inputs (like land, water and energy) as well as impact on affected communities and the environment.
- Undertake a dynamic exercise to map out potential economic opportunities over the course of the projects for building potential links with the local economy based on economic development priorities (e.g. exploring potential synergies with infrastructure, environment, safety and security, health care, education, tourism, services, biodiversity preservation, agriculture and fisheries) and industry needs. Also, map potential negative impacts and constraints in these areas and consider relevant management and mitigation strategies.
- Identify any barriers to entry for the production of certain products or the development of certain activities, taking into account the structure and dynamics of domestic, regional and global markets.
- Identify goods and services that are both specific and not specific to the extractives industry, highly specialised, or subject to strong competition.

### STEP 3 – Unlocking opportunities for in-country shared value creation

*Opportunities for in-country shared value creation can be found in sector-specific demand for workforces and for goods and services. Extractives sector projects can also be leveraged to develop multi-purpose and multi-user infrastructure, enabling systemic linkages and economic diversification as well as affordable access to power and water. Innovation in the extractives sector can also lead to new products and services fostering new areas of comparative advantage for host countries. Combined together, these measures can generate positive impact on job creation, skills development, and poverty reduction.*

#### 3.1 - Local workforce and supplier development

##### 3.1 A What can host governments do?

- Improve the investment climate<sup>9</sup> and assess the ease of doing business in the country, strengthening enabling conditions for business development, such as removing trade and investment barriers and addressing other constraints such as those identified in the World Bank's reports on ease of doing business.
- Undertake a baseline assessment and build credible and reliable statistics on existing industry capacity, size of local enterprises, level of participation, supplier landscape and institutional capacity for skills and small and medium-sized enterprise development to inform strategic planning, required skills upgrading and technical training activities.
- Develop plans for an inclusive local workforce and supplier participation, focusing on increasing the participation of vulnerable groups, such as women and indigenous peoples.
- Prioritise approaches that enable progress towards achieving common objectives, goals and targets over compliance with and enforcement of local content quotas.
- Balance pressure for indigenisation (i.e. requirements that companies are registered locally or owned by nationals), which may incentivise or perpetuate rent-seeking and elite capture, with long-term benefits associated with localisation of productive activities, contributing to generating in-country value.
- Promote transparency, including clearly communicating if and how factors such as local employment, local procurement, training, skills upgrading, and technology transfers are factored into tender evaluation processes.
- Facilitate the linkage of multinationals with local firms, in particular local small and medium-sized enterprises.

---

9. OECD (2015), Policy Framework for Investment 2015 Edition, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264208667-en>. The Framework is a tool, providing a checklist of key policy issues (investment policy; investment promotion and facilitation; trade policy; competition policy; tax policy; public governance; corporate governance; policies for enabling responsible business conduct; human resources development; an investment framework for green growth; private investment in infrastructure; and financing for investment) for consideration by any government interested in creating an enabling environment for all types of investment and in enhancing the development benefits of investment to society. A good investment climate helps to mobilise capital, skills, technology and intermediate inputs to allow firms to expand. But, it is not just about reducing the cost of doing business and raising corporate profitability. It should also ensure that investment brings about the highest possible economic and social impact.

- Support local firms to comply with international standards and industry global requirements, including through the adoption of, and compliance with certification standards.
- Create financing vehicles for local firms, including small and medium-sized enterprises, to support their ability to effectively compete for locally tendered contracts.
- Match training opportunities with documented industry demand, in priority segments/activities with the highest growth potential.
- Align technical vocational programmes with the skills required in the extractives sector, amongst others.
- Set up training funds for workforce and suppliers skills development in which extractive companies can contribute. Make prudent use of targeted tax incentives to promote the development of other industries in the value chain of extractives.<sup>10</sup>
- Promote economic diversification through cross-industry linkages to enable additional opportunities for economic development after the phase-out of extractives sector projects.

### **3.1 B** *What can extractives industries do:*

- Clearly articulate the success factors for participation in extractives sector value chains (price, delivery reliability, safety, quality) and conformance to international standards (environment, labour, industry-specific requirements).
- Support capacity building for specific job or value chain-related skills, either directly or through joint training programmes/centres.
- Develop and implement plans for inclusive and progressive local workforce and supplier participation, focused on increasing participation of vulnerable and historically underrepresented groups, such as women and indigenous peoples.
- Assess short-term costs associated with workforce and supplier capacity building initiatives as investments that will reduce operating costs in the long term.
- Evaluate the potential to unbundle contracts for services and supplies, to support creation of enhanced opportunities for local businesses, in particular small and medium-sized enterprises.
- Evaluate the potential to make advance purchase orders, forward purchase agreements or implement other mechanisms that could help facilitate the integration of local suppliers in extractives sector value chains.

### **3.1 C** *Host governments and extractives industries can work together to:*

- Collectively assess existing industry capacity, level of local participation, and supplier 'landscape', to inform strategic planning, required skills upgrading, and technical training activities.
- Collectively assess the capabilities of the available local workforce and local supply base by occupation and existing skills. Undertake a decomposition analysis of the industry demand for skilled and unskilled workers and suppliers, charting the changing skills profile by type and phases

---

10. OECD (2015), Policy Framework for Investment, Chapter 5: Tax policy.

of projects and their locations. Consider strategies to increase participation of vulnerable and historically underrepresented groups, such as women and indigenous peoples.

- Collectively undertake a gap analysis assessing national education and training systems against current and future industry needs and foster alignment between government plans and industry needs, particularly in regards to training, education, and infrastructure.
- Evaluate the time and resources needed to close any identified technological, infrastructure, capabilities, and financing gaps.
- Engage with major contractors and suppliers to encourage public awareness regarding local procurement and training needs, as the ability of local businesses/workforce to access employment/procurement opportunities will often depend largely on the efforts of major contractors.
- Agree actions of mutual benefit, also involving global industry associations in skills upgrading and dissemination of best practices, along with realistic, operational, measurable milestones and timelines, so as to manage expectations and show tangible progress over time.
- Publish estimated demand for workforce, suppliers, goods and services at each stage of a project.
- Identify and prioritise quick wins for local workforce and supplier participation and leverage other opportunity areas for long-term collaboration.

**Table. 1 – Employment and procurement opportunities along the life cycle of oil & gas projects\***

Years	Phase Activities	Employment opportunities	Procurement opportunities	Possible areas for collaborative efforts
1-10	<b>Exploration</b> - Seismic - Exploration drilling - Appraisal drilling	<b>Low Intermittent Short-term</b> 100-200 full-time jobs for short periods	<b>Low Intermittent Short-term</b> <i>industry-specific:</i> seismic survey, laboratory services, marine and land surveys, rig provision, drilling services, coring, wireline logging, casing & running, cementing, perforating, etc. <i>generic:</i> freight forwarding, transport, vehicle fleet management, HR, legal and regulatory services, finance & risk, IT/communication, construction, HSE, site support, etc.	Early assessments of workforce capacity and supplier landscape mapping Identification of government and other stakeholders' expectations and engagement of civil society organisations and donors Conceptualisation and implementation of potentially scalable pilot projects
2-6	<b>Development</b>			Planning of local workforce and suppliers capacity development for the construction phase After final investment decision, development of workforce and supplier skills as well as basic skills and competencies in resource-bearing communities
0.5-2	<b>Sub-phase I:</b> - Feasibility - Concept design - Front-end engineering and design	<b>Low</b> 10s jobs mainly off-site specialized engineering and project management services	<b>Low</b> <i>industry-specific:</i> engineering and design services <i>generic:</i> same as in the exploration phase	
2-4	<b>Sub-phase II:</b> - Engineering - Procurement - Construction - Fabrication & assembly	<b>Short-term</b> <i>On-shore: high</i> <i>Off-shore: low/medium</i> 100 – 200s jobs	<b>High</b> <i>industry-specific:</i> facility modules manufacturing/ platform construction, on-site assembly/installation, infrastructure development (pipelines, flow lines, umbilical), storage tanks manufacturing, wellheads, drilling equipment <i>generic:</i> civil works, welding, steel basic structures, construction raw material, industrial heavy machinery, excavation equipment, electronic and electrical equipment, freight forwarding, transport, etc.	
10-40	<b>Operations</b> - Operation & maintenance - Wells/facility optimisation - Enhanced recovery	<i>On-shore</i> <b>Stable Long-term</b> <i>Off-shore:</i> <b>Fewer Specialised</b> 100s – 1000s jobs	<b>High</b> <i>industry-specific:</i> production enhancement, modifications to platforms, inspection & repair of topside infrastructure, reservoir management, well intervention & work over, maintenance and repair, pipelines, compressor stations) <i>generic:</i> same as in the exploration phase	Creation of recruiting pipelines from training programmes/centres Building of a globally competitive local workforce and supply base for phased progression and replacement of expatriates Promotion of innovation and support of diversification efforts
3-5	<b>Decommissioning</b>	<b>Low</b> 100s jobs	<b>Low</b> <i>industry-specific:</i> engineering, deconstruction, material disposal, site monitoring) <i>generic:</i> same as in the exploration phase	Identification of redeployment opportunities in other sectors Training of transitional workers

\* The opportunities for local employment and procurement of goods and services listed in the table do not claim to be exhaustive or relevant in all cases as circumstances may vary depending on specific contexts.



**Table. 2 – Employment and procurement opportunities along the life cycle of mining projects**

Years	Phase <i>Activites</i>	Employment opportunities	Procurement opportunities	Possible areas for collaborative efforts
1-10	<b>Exploration / Feasibility</b> <i>-Reconnaissance, location of mineral anomalies, discovery, sampling</i> <i>- Decision about economic (and social) viability of mining</i>	<b>Low Intermittent Short-term</b> 0-250 jobs	<b>Low Intermittent Short-term</b> 0-3% of total spend	Early assessments of expected life of the mine, local workforce and suppliers capacity and infrastructure gaps Aggregation of industry demand for employment and supplies Understanding of stakeholder expectations Development of a shared vision for regional/ local economic development via cross-industry as well as public-private collaboration Development of a plan to realise the shared vision, including through domestic enterprise development Tailoring of existing government/support programmes (business mentoring, advisory support, financing, managerial capacity) to start addressing barriers to local enterprise development
1-5	<b>Construction / Development</b> <i>- Planning: mine plan, environmental / social plans, closure plan, authorisations &amp; permits</i> <i>- Construction: clearing, stripping, blasting, infrastructure</i>	<b>High Short/medium-term Direct</b> 250-1000s manual and technical jobs	<b>High Short -term</b> 10-25% of total spend	Alignment of training / capacity building programmes, including those supported by donors, with regional and national industrial development plans Capacity building in local labour pools (e.g. technical mining specific training and transferable skills for post-closure industries) Collaboration among stakeholders to address local firms' lack of scale and capacity Bridging of asymmetries of information through dedicated for a and online databases to share and manage information flows Assessment of the potential for intersectoral linkages and alternative economic activities, during the mining life-cycle and the post-closure phase
2-100+	<b>Production</b> <i>- Ore extraction, processing, concentrating</i> <i>- Waste rock/tailings management,</i> <i>- Wastewater management</i> <i>- Progressive site reclamation</i>	<b>High Long-term Direct and Indirect</b> 1000+ manual and low skilled labour & med-high skilled labour resulting from training	<b>High</b> 75-90% of total spend	Same as above + Identification and prioritisation of goods and services with sufficient aggregate demand from all private actors Implementation of local SMEs development plans in agreed priority areas Identification and prioritisation of transferable skills (and on-going skills for environmental monitoring for example) to ensure post-closure labour market sustainability Identification of possible intersectoral linkages and synergies for local suppliers to serve other sectors
1-5	<b>Decommissioning</b> <i>- Site clean-up, reclamation, rehabilitation &amp; maintenance</i> <i>- Environmental monitoring</i>	<b>High Short/long-term Indirect</b> 0-1000+ jobs	<b>Low</b> 0-2% of total spend	Implementation of an economic development plan for the area post-closure

## 3.2 Shared infrastructure

### 3.2.1 Shared power<sup>11</sup>

#### 3.2.1.A *What can host governments do?*

- Obtain extractives sector projects' projections for power demand, and preferred sources to allow for early planning and effective coordination amongst relevant central, and local authorities.
- Consider opportunities and the scale of possible power-gas and/or power mining integration (if applicable), taking due account of key economic factors, including cost, electrification rate, and power reliability and adequacy, which are essential for industrial extractives operations.
- Take a long-term perspective when identifying potential synergies, taking into due account any rising demand from non-extractives sector sources. Also, assess the affordability to communities and their willingness to pay, and plan sustainable provision beyond the conclusion of the extractives sector project.
- Consider mechanisms, such as stipulating power requirements and access fee arrangements in laws or contracts, to ensure the sustainability of supply beyond the extractives sector project and hold government to account.
- When extractives sector operations are used as anchor customers for large power developments, design appropriate power pricing mechanisms to avoid either subsidising the extractives sector at the expense of the utility or taxpayers, or decreasing the supply available to non-extractives sector industries and residential consumers.
- Consider partners other than the extractives sector in development of power generation capacity to incentivise the construction of oversized generation plants to serve neighbouring populations, or send excess capacity from self-supply to the grid.
- Where necessary, engage in regional and sub-regional policy coordination for infrastructure development and power sharing.

#### 3.2.1.B *What can extractives industries do?*

- Provide forecasts regarding anticipated demand for power and sourcing of power, and regularly provide data about actual usage.
- Implement energy efficient operations and evaluate whether there is potential idle capacity in stand-by self-supply generators that could be used for power solutions.

*Where there is no grid or the grid is too remote so that grid-supplied electricity is more expensive or excessively unreliable compared with self-supply:*

- Develop electricity self-supply plans that align with government's plans for electrification and local contexts.

---

11 . This section is based on Banerjee, Sudeshna Ghosh, Zayra Romo, Gary McMahon, Perrine Toledano, Peter Robinson, and Inés Pérez Arroyo. 2015. *The Power of the Mine: A Transformative Opportunity for Sub-Saharan Africa*. Directions in Development. Washington, DC: World Bank. doi:10.1596./978-1-4648-0292-8.



- When planning to supply local communities with power, consult early with the local communities to understand their power needs and preferences, defining their responsibilities and those of the local government in operating and maintaining power arrangements including access fees.
- Enable a sustainable strategy for leveraging extractives sector energy generation, by assessing the feasibility of renewable energy power generation options.
- In consultation with donors, governments, and utilities, assess the feasibility of installing a renewable energy-based mini grid instead of isolated generators and explore implementation and cost-sharing arrangements.
- Where economically viable (i.e. availability of inexpensive sources of energy such as hydropower and gas), collaborate with other extractives companies from the same basin to invest in power generation and transmission capacity, considering domestic needs, including non-industrial use.

*Where electricity provided by the utility is stable and less expensive than self-supplied power:*

- Buy electricity from the grid, while working with national or local public utilities and other extractives companies to upgrade generation, transmission, and distribution capacity to meet demand.

**3.2.1.C** *Host governments and extractives industries can work together to:*

- Undertake early discussions regarding power infrastructure needs and plans to determine if there are synergies, efficiencies and other opportunities for shared value creation with respect to power generation and distribution. This includes developing strategies for situations where there is no ready access to the electricity grid.
- For any project undertaken, clearly articulate government and company responsibilities and liabilities, including operating and maintenance, power transmission and delivery, billing and customer revenue management.
- Consider power usage and distribution in the equilibrium of the overall contractual agreement with the extractives industries.

## **3.2.2. Shared use of water**

**3.2.2.A** *What can host governments do?*

- Acknowledge that investment in water security drives sustainable growth, and invest in infrastructures, institutions and information to manage water risks.
- Adopt an integrated approach to water resource management that recognises the need for a negotiated process to co-ordinate and adjudicate amongst competing users to ensure sustainable management of water resources.<sup>12</sup>

---

12. OECD (2015), *Water Resources Allocation: Sharing Risks and Opportunities*, OECD Studies on Water, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264229631-en>

- Assess all water sources (surface and groundwater, rainwater) at the relevant scale for allocation with a view to determining which water resources are under current or future pressure (e.g. risk of scarcity or pollution, or risk to the ecosystems) . Understand how they may be interconnected, when they are available (seasonality) and how they may change over time, as climate change, economic development and population growth will affect water availability and demand. The results should be made publically available.
- Consider non-conventional water sources, such as treated wastewater and desalinated water as alternatives to freshwater, where appropriate from an economic, social and environmental perspective.
- Design a robust and transparent planning instrument that can adjust to changing conditions at least cost over time. Well-designed plans set out a clear framework for the allocation of water resources among competing uses (industry, agriculture, environment, residential) in order to manage pressure, competition, conflict over the use of water resources, and to protect against excessive deterioration.
- If scarcity arises, consider the introduction of a clearly delineated allocation regime based on clear, adjustable limits on abstraction. When water is over-allocated and/or over-used, bring use in line with sustainable limits through negotiated arrangements.
- Assign well-defined roles to authorities and organisations responsible for water allocation and adopt accountability mechanisms that actually work in practice.
- Ensure policy coherence across existing policy settings related to water resources management as well as water-related sectors, such as agriculture, mining and energy. Even a well-designed allocation regime can be undermined by perverse incentives in other sectors, such as subsidies that encourage over-consumption of water resources or pollution that degrades water quality.
- Levy appropriate fees on users, reflecting the full cost of providing access to water resources and the opportunity costs of using it.
- Ensure an adequate institutional framework to regulate, monitor, and enforce water rights, minimising waste and promoting the systematic reuse and recycling of used water.
- Take action to prevent and manage water pollution, from all sources (and in particular of groundwater), including diffuse pollutions and emerging pollutants. Combine regulatory, voluntary and economic instruments (for example standards and charges) to provide continuous incentives for water users to control pollution of water resources. In accordance with the Polluter Pays principle, pollution charges make pollution costly and support sustainable practices.

### **3.2.2. B** *What can extractives industries do?*

- Engage with local communities and water users, at basin and catchment levels, to understand water-related issues and risks (risk of scarcity, flooding, pollution, and risks to ecosystems) and consider offering solutions. For instance, investments made in multi-purpose infrastructure that support water-related objectives.
- With due regard to anti-competitive concerns, collaborate with other extractives companies from the same basin to devise a common solution for water management and allocation. For example, a collective water treatment infrastructure solution might be less environmentally costly and more cost-effective for all parties than several treatment facilities.

- Clearly articulate anticipated water footprint (demand for water and potential emissions) and implement water efficient operations that minimise pressure on the use of the resource.
- While selecting alternative exploitation and concentration methods, consider environmental risks and the amount of emissions. Select closed process-water circuit and dispersed water treatment, if applicable, and systematic monitoring and evaluation of the impacts of operations on water systems over time.

### **3.2.2. C** *Host governments and extractives industries can work together to:*

- Devise mutually beneficial arrangements. For example, when a company develops water treatment facilities allowing excess capacity to be used by the community. The government and the water utility should be responsible for distribution of the water and collection of associated tariffs.
- Share knowledge, information and expertise, and where appropriate, support additional research.

### **3.2.3. Shared use of transport infrastructure**

#### **3.2.3. A** *What can host governments do?*

- Provide a clear and effective regulatory framework for multi-purpose and multi-user infrastructure, to ensure a financially sustainable and effective model as well as clear access conditions based on objective criteria and simple adjudication and arbitration mechanisms.
- Avoid exclusive access or monopoly pricing for the transport services on the infrastructure by any other users.
- Clarify that extractives sector companies are expected to take community needs into account and design the transport infrastructure to allow for shared use, when this can be done safely and economically.
- Devise a tariff formula applicable to any third-party user, based on existing user volume agreements and linked directly to the cost of maintenance and upgrades.
- Recognise the rights of any extractives sector company participating in transportation financing, not through tariff discounts, but rather through the same rights usually afforded to other debt holders (i.e. commercial repayment of their financing).
- Develop an effective coordination mechanism in a non-fully integrated situation and consider double-track railway options to reduce the coordination costs of multiple users.
- Develop policy that encourages a tier one rail and port developer or operator to invest in transport infrastructure, holding them to account for providing supply chain planning and coordination.

#### **3.2.3. B** *What can extractives industries do?*

- With due regard to anti-competitive concerns, collaborate with other extractives sector companies from the same basin to determine the potential for shared value through the development of shared transport infrastructure. Collective rail and port infrastructure might be the more cost-effective solution for all parties.

- Clearly articulate anticipated or disclose actual demand for transport infrastructure.

### 3.2.3. C *Host governments and extractives industries can work together to:*

- Devise mutually beneficial arrangements concerning transport infrastructure.

## STEP 4 – Support and contribute to innovation leading to new products and services

*Initial comparative advantage in natural resources can be leveraged to push the production possibility frontier outwards and create dynamic comparative advantages through diversification. If a country uses its resource endowment in this way, over time, resources will become proportionally less important within their economy.*

### 4. A *What can host governments do?*

- Identify changing trends in global consumption and production patterns (progressive ore grades decline and increasing labour, transport, energy, processing, capital/equipment costs), changes to end uses for minerals (innovation in final products), and carbon emissions trading.
- Fully consider trade-offs associated with technological innovation (i.e. automation and remote tele-operation, where potential gains in productivity are off-set by potential losses in social and economic benefit for local communities).
- Support research and development efforts to identify, adapt, and transfer technology, making sure that these efforts are responsive to private sector demands. In doing so, develop ties with local universities, public research institutions, and participate in collaborative initiatives.

### 4. B *What can extractives industries do?*

- Invest in specialised technologies for planning, handling, processing, maintenance, operational monitoring and recycling (excavation, concentration, ore prospecting, monitoring of the state of the environment) that reduce environmental impact.
- Leverage extractives sector operations to increase use of renewable energy, as appropriate. This could be done for example by either linking production to renewable energy (e.g. making use of solar and wind power to reduce the contribution of fossil fuels and green-house gases to mineral and oil & gas production, while reducing high electricity costs associated with the use of decentralised diesel generators) or by developing green supply chains (e.g. mining rare earths and supporting local manufacturing of magnets for wind turbines to provide clean energy or mining lithium to manufacture electric batteries for incorporation into green products).
- Contribute, as appropriate and economically feasible, to improving the innovative capacity of subsidiaries and subcontractors (i.e. export of software and other knowledge services).
- Contribute, as appropriate and economically feasible, to finding solutions to challenges shared by extractive industry companies, thus increasing public trust in company's operations.

### 4. C *Host governments and extractives industries can work together to:*

- Engage in cooperation based on project life cycle analysis, covering the entire value chain and offering the opportunity to build on best practices of several sectors.

## **STEP 5 – Establish effective and transparent monitoring and evaluation systems and regularly review the public-private collaboration strategy**

*Setting up an appropriate monitoring and evaluation system will be essential to assess performance against identified shared goals and milestones, and ensure commitment to delivery from different stakeholders as well as mutual accountability. To the extent possible, the system should aim to capture the different dimensions of shared value creation, including cross-sectoral spin-off benefits. An efficient and standardised, yet flexible and adaptive methodology for performance measurement should be developed in order to ensure consistency and comparability of results. Regular reviews of the strategy, ideally on a biannual basis, allow for adjustments to reflect changes in the operating environment, progress made and lessons learned (what is working and what is not). Effective and structured communication around the strategy is also crucial to ensure continuous engagement and commitment from different stakeholders.*

### **5. A** *In doing so, host governments, industry and civil society can work together to:*

- Build on existing structures, such as the Extractive Industry Transparency Initiative (EITI) Multi-Stakeholder Group (MSG) or, where necessary, develop governance mechanisms to ensure effective and transparent monitoring and evaluation, involving relevant government bodies, extractives industry and civil society in the design and implementation of the system, allocating clear roles and responsibilities.
- Develop an efficient and effective standardised, yet flexible and adaptive methodology for performance measurement and reporting, generating sufficient information to assess progress on all aspects of shared value creation and inform better decision-making and monitoring, while avoiding inefficiency or complexity for companies and government agencies.
- Evaluate impact, including local industry participation over time (e.g. number and rate of participation, progression in their particular place in the value chain over time where applicable), efficient use of limited resources and creation of value for all stakeholders involved.
- Re-evaluate measurements from time-to-time to ensure they continue to serve the intended purpose and review progress made on strategy implementation in light of changes in the operating environment and lessons learned.
- Communicate results to stakeholders using wherever possible existing structures, like the Extractive Industry Transparency Initiative (EITI) Multi-Stakeholder Group (MSG) or analogous inclusive platforms.
- Inform each other and raise awareness of potential new constraints or changing circumstances that might affect strategy objectives and outcomes, and assess what is working and what is not.
- Discuss and agree potential adjustments and changes to support the agreed vision and actions to build diversified, competitive economies and create in-country shared value.

### **5. B** *What can extractives industries do:*

- Integrate the standardised methodology and reporting procedures into internal local monitoring and evaluation system, including through existing sustainability reports where applicable and as appropriate.

- Provide reporting in as much detail as reasonably possible to better measure and manage company activities. Share available data and information as agreed with host government's authorities to enable them to make better-informed decisions to create in-country shared value.