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9.5 The Responses

In responding to the kinds of issues described in **Sections 9.3** and **9.4** above, there are a wide range of industry guidelines, voluntary initiatives, tools, international standards and frameworks that exist for evaluating, measuring, managing or preventing the specific types of impacts. An important feature of these diverse guides to good practice is that many of them are voluntary, and are not based on legislation or the provisions of binding agreements. Improvements in managing environmental and social impacts have often been attributable to extractive companies themselves in subscribing to and following international corporate responsibility schemes. These non-legally binding initiatives are the subject of this section.

Ideally, extractives policy and project design should provide support to, or encourage, *beneficial* externalities while mitigating or offsetting any *negative* consequences. Pursuit of these objectives is in the interest of investors and governments alike. In the case of the former, appropriate attention to social and environmental issues provides a ‘social license to operate’ from the EI project host country or community which goes beyond the strictly legal license. From a government’s perspective, it demonstrates responsiveness to the legitimate interests of its citizens.

There is an institutional aspect to the design of effective responses. Good policies and good project-specific decisions may be ineffective in the face of limited institutional capacity to pursue or enforce them. In some instances, if certain outcomes are desired, there will have to be additional resources available. This means that resource requirements have to be identified and developed at an early stage or as early as possible.

Good industry practice may be referred to in a contract and may even refer expressly to a set of standards such as the IFC Performance Standards or to a standard-setting body such as the International Council of Mines and Minerals (ICMM). The aim in such cases would be to clarify the kind of good conduct that is expected. Many of these standards exist in the extractives sector, based on inter-governmental, multi-stakeholder and industry association sources. Most of these are voluntary initiatives and therefore not legally binding. However, they are highly influential in thinking about good practice.

One of the best known examples of standards is that adopted by the IFC in 2006 and updated since then. These Performance Standards have been adopted by many other internationally operating institutions including the 80 plus financial institutions that have signed the ‘Equator Principles’. These Standards cover social and environmental baseline

and impact assessments, as well as environment management plans, safeguards for indigenous peoples, and land acquisition and resettlement.

With respect to decommissioning and closure, there are distinct differences between the decommissioning of a petroleum structure and the closure of a mine. The learning database differs greatly between mining and hydrocarbons in this area. While mining has been carried out for hundreds, indeed thousands of years in some places, the issues arising from decommissioning of hydrocarbons fields are relatively recent, particularly with respect to the many structures located in offshore fields. There is very little experience of actual decommissioning outside of the on-land and offshore USA. For countries with operations in deeper waters than the Gulf of Mexico, the North Sea provides some indications of the nature of the problem (see below).

It is also generally understood as a series of processes that start at the time of project design and continue throughout the life of project operation. Preparation well in advance is crucial to effective decommissioning and closure.

9.5.1 Environmental

The reduction of environmental impacts can have a positive benefit for employment. It can provide opportunities to develop local skills while mitigating the carbon footprint of EI activities, and their effects on climate change. Promoting renewable fuels sources of energy and energy efficiency are important initiatives in this respect. Local producers of technology can be stimulated to produce energy solutions using local renewable energy sources.

In this context, companies have an interest in drawing upon industry 'good practice' standards and generally becoming proactive; this includes working with communities to build the skills necessary for resource employment and the provision of goods and services. At the same time, they are able to draw upon the growing body of standards and soft law mechanisms that require a voluntary response from the players for compliance.

Box 9.8: Essentials of a Good Environmental Protection Regime

If well designed, it will provide for:

- Coverage of both the mineral or hydrocarbon operation and also all related infrastructure;
- Environmental permits that cover key impacts such as water use and waste water discharge quality, waste storage and disposal, atmospheric emissions and noise;
- Community hearings open to the public where all data collection, impact assessments and management plans are presented as part of the approval process; final, approved documents should be provided to communities;
- Participatory community monitoring that can help reduce community concerns;
- Identification of assets for handover at an early stage and setting up of arrangements for them to be jointly operated and maintained by the community agency or organisation that will receive them;
- The establishment of financial assurance mechanisms that are needed to ensure that sufficient funds are in place for plant removal and disposal and land reclamation and rehabilitation at the time of closure and decommissioning; it should also require that reclamation and restoration be built into the production plan to take place on a progressive basis in which case there is less to do during closure and decommissioning;
- Penalties that are clearly stipulated for violations of requirements and compliance standards, and compensation set out for harmed parties where needed: all of which should be commensurate with the seriousness of the violation; and
- Environmental audits and surveys of any legacy issues from past operations, as well as identification of environmental risks and action priorities set as well as mobilization of any funding required.

9.5.2 Oil and Gas

9.5.2.1 Oil Spill Clean Up

Where a significant or catastrophic environmental accident occurs, it is crucial to have funds available to meet the costs. Some contractual provision will usually have been made to help in addressing this (deposits paid into funds, parent guarantees or a requirement that the company obtain insurance). This is a way of ensuring that the government is protected from having to make payments for such eventualities if they happen, and if the company defaults. Very significant differences are found in levels of preparedness between countries with areas of particular vulnerability in institutional capacity, inter-agency cooperation, detail of

available rules and company mix. The Gulf of Mexico incident involving the Macondo well involved a large privately owned oil company; in many cases, the operating company will be a national oil company or a smaller company, with less predictable outcomes in the event of a large spill.

For industry it is important for reputational and cost reasons to engage in oil spill preparedness and response activities. Knowledge is pooled through associations¹. Prevention is treated as the priority, and requires cooperation with the relevant regulatory authorities. A particular action is the joint IPIECA and IMO Global Initiative, which brings together industry and governments to enhance oil spill preparedness and response. This is an umbrella programme that encourages and facilitates the development and implementation of oil spill contingency plans and the ratification and implementation of oil spill related international conventions. Three regions are active in this arrangement: the Caspian and Black Sea Region, West and Central Africa and Southeast Asia.

Many practice guides have been produced by a joint industry partnership comprising IPIECA and the International Oil and Gas Producers Association, established following the Macondo incident in the Gulf of Mexico, to implement learning opportunities in this area. These guides are available online, and are being translated into French, Spanish, Portuguese and Russian.

The industry has also established so-called Tier 3 response centres worldwide. These sites offer specialized resources such as specialist equipment and trained personnel, and funding mechanisms, held in readiness to combat an oil spill. The idea is to integrate them rapidly into a local response where that is already under way. Some 'mock' oil spill response exercises have already been held in the Latin American and Caribbean region.

9.5.2.2 Gas Flaring

Two principles are generally accepted. Firstly, gas flaring of associated gas should not be authorized by governments, except in cases of emergency for operational reasons or when no alternative economic solutions exist. This is usually supported by the domestic legal and regulatory framework.

¹ <http://www.ipieca.org/focus-area/social-responsibility> (last visited 11 May 2016). IPIECA has a working group on oil spills enabling the exchange of information and best practices. It supports industry and promotes government cooperation.

For example, Mozambique has adopted the following wording in its amended Petroleum Law²:

- “1. The flaring of natural gas shall only be permitted on terms to be defined by the Government and only if it is demonstrated that all the alternative methods for the disposal of the natural gas are unsafe or unacceptable for the environment.
2. Authorization shall be required when the natural gas is flared for the purpose of testing or verification of infrastructure, on terms to be regulated.”

Secondly, a key priority should be to use associated gas when produced. Operators can be required to identify on a case by case basis the possible uses of associated gas in the country. They should select the most viable use for oil recovery but in the absence of any such use, the gas may be temporarily re-injected in the oil reservoir. In this way, the gas is not lost and is stored in the oil reservoir for use at a later stage of the field production life. An example of this is Yemen’s reinjection of associated gas over a 20 year period, in the absence of commercial uses for the gas. Subsequently, the construction of a pipeline and an LNG plant allowed the export of both associated and non-associated natural gas, and the supply of gas to a power plant in the country and to other end-users³.

The Clean Development Mechanism (CDM) may also assist in the reduction of gas flaring. It allows funding of projects specifically aimed at reducing associated gas flaring in developing countries and can therefore improve the economics of such projects.

CEPMLP

Centre for Energy, Petroleum and Mineral Law and Policy

9.5.2.3 Climate Change

The oil industry association, IPIECA, participates in the Intergovernmental Panel on Climate Change (IPCC) and the UNFCCC activities, and through this means it provides its members with updates on the actions that governments are taking and the arguments made with respect to climate change. IPIECA has a working group that has been developing GHG emissions management guidelines as well as other information documents that assist in raising the level of oil industry best practice on this matter. In 2015 it published a guidance document, jointly with the American Petroleum Institute, *Addressing Uncertainty in Oil and Natural Gas Industry Greenhouse Gas Inventories*. This summarized the technical considerations that are important for understanding and calculating GHG emission inventory uncertainty, and assists companies to navigate the uncertainties around establishing a corporate carbon footprint, publicly reporting on emissions and assessing life cycle emissions⁴. A further step was taken in 2015 with the release of a pilot *Climate Change*

² Petroleum Law, March 2012 (draft), Art 17.

³ Leleuch, p.13.

⁴ <http://www.ipieca.org/publication/addressing-uncertainty-oil-and-natural-gas-industry-greenhouse-gas-inventories-technical> (last visited 11 May 2016)

Reporting Framework, providing voluntary guidance for oil and gas companies developing climate related sustainability reports. It assists companies in disclosing relevant data in a simple, straightforward manner using a consistent methodology.

Individual companies take actions to limit GHG from their own operations and to help their customers to use their products more efficiently. This includes working with governments, research organizations and other sectors to develop innovative ways of supplying energy in an environmentally sustainable manner and deploying low carbon technologies, investing in new fuel technologies including renewable, hydrogen, biofuels and fuel cell technologies.

9.5.2.4 Biodiversity

Oil and gas companies take individual actions but best practice achieves momentum through the more systematic actions of industry associations such as IPIECA. It has a working group to improve the way that the industry recognizes and manages biodiversity conservation issues. The aims of the working group include the integration of biodiversity and ecosystem service concepts and management into oil and gas operations by developing science based good practice tools using a mitigation hierarchy and a reference framework. The main contribution of this kind of industry body is to develop tools and guidance, while at the same time organizing workshops to raise awareness of industry action. In particular, there is a Cross Border Biodiversity Initiative, a collaborative partnership between IPIECA, ICMM (the mining association) and the Equator Principles Association. This aims at integrating biodiversity conservation mechanisms into the extractive industries. It has published guidance documents such as: Good Practices for the Collection of Biodiversity Baseline Data⁵, which is designed to help companies to incorporate biodiversity indicators into their Environmental and Social Impact Assessments; Biodiversity and Eco-system Services Fundamentals, bringing together information essential to informing BES strategy development and decision making at the corporate level⁶, and a Cross-Border Guide for Implementing the Mitigation Hierarchy⁷, which defines four clear steps to manage biodiversity throughout the life cycle of a project. IPIECA has also been monitoring the concept of natural capital – an emerging approach to assessing the monetary value of natural wealth and its ecosystems.

⁵ <http://www.ipieca.org/publication/good-practices-collection-biodiversity-baseline-data> (last visited 11 May 2016)

⁶ <http://www.ipieca.org/publication/biodiversity-and-ecosystem-services-fundamentals-guidance-document-oil-and-gas-industry> (last visited 11 May 2016)

⁷ <http://www.ipieca.org/publication/cross-sector-guide-implementing-mitigation-hierarchy> (last visited 11 May 2016)

9.5.2.5 Decommissioning

For governments new to oil and gas developments, it makes sense to consider the practice of mature provinces where the issues will have become pressing and actions already taken to prepare for decommissioning. Sometimes this is a legal requirement, and not a matter of choice. In Brazil the Petroleum Law 1997 provides that the concession shall “adopt the industry international best practices”, and the PSA Law 2010 refers twice to industry best practices, requiring the regulatory agency to enforce them and requiring all operations under the PSA to be carried out in accordance with industry best practices, thereby imposing the requirement on the state company, Petrobras, as the only entity allowed to operate under the PSA. There is also an extensive literature on the principles and practice of decommissioning, albeit with still relatively few examples of actual removals and disposals⁸. Two common themes stand out in the literature, in its analysis of decommissioning:

1. Funding of costs: How is decommissioning to be paid for?; and
2. Timing of response: When is the best time to start preparations for decommissioning?

The major concern of a government will be to ensure that payment for the costs falls mostly if not entirely on the contractor or licensee and not on the state. Since the actual timing is rarely foreseeable, there are a variety of issues that need to be addressed well in advance to improve that the likelihood that this outcome will be achieved. Among these, the more important are to ensure that at the time when such costs are due the obligation to pay has been clearly linked to a specific company or consortium and that the funds are available to meet these costs.

For the government the risk is that once production is in decline one or more investors will default on their decommissioning obligations. This has already happened in the UK sector of the North Sea, where the companies developing the Ardmore field defaulted⁹. Where the company is part of a consortium the obligation can be shared between the remaining parties.

The exact liabilities will involve making estimates far in advance of the event and will include a margin of error. Moreover, each decommissioning is unique, with its particular combination of technical, commercial and environmental features. Given this uncertainty, if a party wishes to leave the JOA early, it may prove hard to agree on a security for its

⁸ For example, FK Altit and MO Igiehon, ‘Decommissioning of upstream oil and gas facilities, in Oil and Gas (ed G Picton-Turbervill)(Global Law and Business, 2009), pp. 257-279; M Hammerson, Upstream Oil and Gas (Global Law and Business, 2011), chapter 6; AIPN Model International Operating Agreements 2002 and 2012; AIPN Model International Unitization and Unit Operating Agreement 2006; Duval, Leleuch et al, International Petroleum Agreements (Barrows, NY, 2009), pp.147-149.

⁹ DTI, Decommissioning Offshore Energy Installations, June 2007 (UK Government, London), p.30. The decommissioning costs were relatively low at £5 million.

decommissioning obligations. The continuing parties will have to rely upon the covenants and indemnity that are in the JOA.

Timing will also present challenges since contractors will have difficulty in knowing exactly when to commence preparations, given variables such as the international oil price, technological developments leading to potential for enhanced recovery, and environmental knowledge. All may change, or some. For an example of how timing can be unpredictable: ConocoPhillips began the process of decommissioning the Maureen field in the UK North Sea in 1993. The platform was not removed until 2001.

There are a variety of country experiences available in designing a decommissioning regime. Some countries like India and Cyprus opt for a relatively simple set of provisions on these matters. Most others, however, prefer to provide for the establishment of a fund; the possibility of abandonment agreements; some provision of security against default and the form of such security; residual liabilities; trust funds and their fiscal treatment; and a measure of public accountability, clearly evident after the Brent Spar experience.

There is a potential for jurisdictional conflicts among the various ministries and agencies involved in the decommissioning process. This is a real issue which needs to be prepared for. Given the wide ranging effects of a decommissioning, several government departments will at some stage become involved, including those responsible for navigation, fisheries, defence, energy, communications, transport, environment, ports and scientific research. State-owned companies will also be involved in many cases. Channels and priorities need to be created and identified, something which only the government can deal with, not the company. In the UK case, this has involved the identification of one ministry as the 'lead' ministry in decommissioning matters.

For countries that operate a production sharing system, there are likely to be some specific problems. The first arises from the operation of the cost oil recovery mechanism. In any well the production will reach a plateau after which the volume produced will decline. The removal of installations and structures will generally occur when no more oil remains to be produced. The question then arises of how the contractor is going to recover the cost of removing the structure or installation when oil is no longer being produced: in other words, when there is no income from which the contractor can finance the removal cost. If it is seen as a problem for the national oil company as the asset owner (as seems likely under many present arrangements) and not a problem for the contractor at all, the company is therefore left with the task of making provisions to finance the cost of removal.

The second turns upon the accounting period for cost oil recovery. This occurs every quarter when, say 20 percent - or perhaps as much as 50 percent in more recent PSAs - of oil produced in the first quarter of production is recovered as cost oil. Such expenditure as is not recovered is carried forward to the next quarter when a further (say) 20 percent of the

oil produced may be treated as cost oil. This process continues for every quarter. Ideally, all of the contractor's expenditure should be recovered by the end of the period of the PSA. This may not occur however. A situation may arise in which the contractor may have unabsorbed cost oil at the end of the PSA. In such cases, should the contractor then have to finance the cost of the removal of petroleum installations and structures, there is no mechanism to permit the contractor to recover its own expenditure or to pay for the cost of the removal.

A third problem arises from the operation of those cost oil recovery mechanisms that permit recovery of cost oil based upon contract areas. Each PSA has its own contract area and the contractor is not allowed to recover expenditure incurred in one PSA area from the income produced in a different area. Therefore, if a contractor has two PSAs in a single country, the oil in the first contract area cannot be utilised as cost oil in the second contract area. The recovery of cost oil from different contract areas is discouraged in some countries by a ring-fencing mechanism which treats each PSA as separate from the other even when the contracting company is the same in both cases. The second problem outlined above will be further exacerbated by this feature of the PSA system.

There are a number of countries in which the PSA has been combined with a decommissioning regime: Trinidad and Tobago, Cyprus, India and Tanzania for example. In Malaysia the approach in the more recent PSAs has been to require the contractor to prepare an estimate and secure agreement on the cost of decommissioning; the cost is then multiplied by the annual production/future reserves; cost recovery is granted and the amount provided has to be paid in cash to the government; on decommissioning an application has to be made to the government for a return of the fund to settle decommissioning costs. An interesting feature of the Trinidad and Tobago PSC is that the contractor is required to restore the surface of the land during the exploration phase, before relinquishing the areas on which no commercial discovery has been made or from which production has commenced.

9.5.3 Mining

Collaboration between industry associations in the extractives sector in responding to environmental and social challenges has grown. An example is the Cross-Border Biodiversity Initiative between ICMM on the mining side and IPIECA on the oil and gas side, joined by the Equator Principles Association. The guidance outputs were discussed above.

9.5.3.1 *Rehabilitation and closure*

Funding One or more financial mechanisms, contained in legislation or the petroleum or mining agreement, should be included and put in place to ensure that the necessary funding is in place for work related to closure once production, and revenue, ceases. Such mechanisms can include cash held in trust, bonds and certificates of guarantee, letters of credit, securities, deeds, and assignments. The value should be built up progressively over time so that sufficient funds are available at the time of closure. Funds should be tax deductible at the time they are irrevocably committed. The amount of funding needed should be updated and approved each time the decommissioning and closure plan is updated and the financial assurance provisions adjusted accordingly. Where cash or comparable financial instruments are used, they should be held by an independent trustee, satisfactory to both the government and the license holder and kept in a safe but income-bearing form in a stable currency so that value is preserved and increases over time.

Timing The appropriate instrument (not a law), a contract or what? Negative impacts raise complicated issues related to compensation: what form should it take (non-monetary or monetary) and when should it apply? Under generally accepted good practice, compensation should preferably consist of non-monetary reparation including replacement of assets and rehabilitation measures. Where non-monetary reparation is not possible, monetary compensation should be provided based on consultation with affected communities and peoples.

Box 9.9: Decommissioning and Environmental Protection Plans

A well-designed environmental protection regime will also require closure and a decommissioning plan and should:

1. start as early as the feasibility stage (design with the end in mind) and continue on a regular basis throughout the life of the operation;
2. be completed with arrangements in place for any environmental hazard post closure site maintenance or environmental monitoring that might be needed after closure is completed;
3. include planning for the decommissioning and removal of plant and equipment, long-term land reclamation and stabilization and restoration to an alternative use; and
4. provide for handover to the community of any remaining useful social or productive assets.

9.5.4 Social

9.5.4.1 Community Relations

Obtaining broad community support is a ‘social license to operate’ and one of the most important issues (see **Boxes 9.8 and 9.9**). Despite improvements in social impacts, there are many communities that oppose EI sector operations in their vicinity. Companies are much better able to manage their operations, and are at far less risk of unexpected opposition that can cause work stoppages, if they have obtained broad-based community support for their EI sector activities. Such support is generally built on four key foundations:

1. The first is good information dissemination so that local communities are satisfied with information from, and communication and consultation with, the company operating in their vicinity;
2. The second is the adequacy of compensation for land required and lost assets and livelihoods due to EI sector investments and operations taking place;
3. The third is good access to local economic benefits from EI sector activities such as direct and indirect employment; and EI sector company-based community programs for the improved provision of local health, education, sanitation, and other services by the government; and
4. The fourth is the adequate mitigation of potential impacts that may adversely affect local living conditions including land reclamation, environmental protection, safety, and crime.

Another consideration that should be taken into account is impacts on salaries and taxes.

Indigenous Peoples The leading guidance is IFC Performance Standard 7 on Indigenous Peoples (PS7) as updated in 2012¹⁰. It applies to any private sector project that seeks IFC financing. Some oil and gas companies have chosen to explicitly follow IFC PS7, while others have adopted their own specific policies and standards, and others have approached the issue by means of implementing broader human rights and community relations policies¹¹. The mining industry has had extensive experience in this area. Its association, ICMC, adopted a Position Statement on Mining and Indigenous Peoples in 2008, and subsequently launched a ‘Good Practice Guide: Indigenous Peoples and Mining’ to support its members in implementing the underlying vision and particular commitments set out in the Position Statement¹². This is a comprehensive guide, which highlights good practice principles and provides examples of how mining companies have addressed particular challenges.

¹⁰ http://www.ifc.org/wps/wcm/connect/50eed180498009f9a89bfa336b93d75f/Updated_GN7-2012.pdf?MOD=AJPERES

¹¹ IPIECA, ‘Indigenous Peoples and the Oil and Gas Industry (2011)

¹² <http://www.icmm.com/publications/indigenous-peoples-and-mining-good-practice-guide>

In addition to corporate policies there are reporting guidelines for companies such as the Global Reporting Initiative¹³, which has reporting requirements for companies that operate in areas where there are indigenous peoples. Companies with express recognition of policies and initiatives to respect and promote the rights of indigenous peoples include BHP Billiton, Newmont, Rio Tinto and Xstrata.

Land Acquisition and Resettlement Resettlement or land displacement tends to be influenced by expectations about consultation with the affected communities, and support for resettled people. International companies now subscribe to the IFC's Performance Standard 5 on Land Acquisition and Involuntary Resettlement, which sets out an express framework for consultation, planning, implementation and monitoring of resettlement, including income restoration. There may be international rules or standards that are relevant to resettlement of peoples which governments have to take note of. Individual companies may well develop tools, policies and standards within their suite of global management standards, to assist operations where resettlement is required.

Resettlement of indigenous peoples is addressed in OFC Performance Standard 7, in which it is stated that no such resettlement may take place without the consent of the people concerned.

Where it is unavoidable, resettlement should take place according to applicable laws, guidelines, and agreements in an acceptable manner to those being resettled. These generally include details on acceptable forms of replacement or compensation for lost land, dwellings, crops, and livelihoods; and government-approved compensation standards for lost assets including land. Requirements on this subject are increasingly found in mining contracts themselves¹⁴.

Human Rights A Human Rights Based Approach has been adopted in Mongolia to assist in the formalisation of ASM with interesting aspects. By means of a Sustainable Artisanal mining Project, a bilateral cooperation between the Swiss Agency for Development and Cooperation and the Government of Mongolia, an enabling regulatory and policy environment was created in which Mongolia's artisanal miners were able to formalise¹⁵. In around six years, the number of miners who have done so amounts to around 7,000 (about 11 percent of the total). The adoption of a rights and duties approach took the following form. Government agents were encouraged to be first movers or enablers by providing an appropriate framework for ASM and helping miners to comply with it by understanding and claiming their rights. Miners were also encouraged to become aware of what their own rights and duties were and what they could expect the government to deliver to them.

¹³ <https://www.globalreporting.org/Pages/default.aspx>

¹⁴ Mining Contracts, p.130.

¹⁵ P Singo and E Levin, What Mongolia's Artisanal Miners are Teaching Us: The Link between Human Rights and Artisanal and Small-scale mining (ASM) Formalisation, OECD Insights, 16 March 2016.

Structures and relationships of mutual accountability between government officials and miners and other citizens emerged.

In a different use of human rights language, local communities in Turkey brought a case against their government in which they alleged that the operation of a gold mine violated their human rights. The Turkish Supreme Administrative Court concluded that rights had been awarded in ways not compatible with the public interest given the location and use of sodium cyanide. In a separate case involving the mine, the European Court of Human Rights found that the approval by the government and its lack of oversight of the operations, including cyanide and use of explosives, constituted a breach of the villagers' right to privacy and family life¹⁶.

Dependency The use of CSR schemes by companies set out by international organizations has improved the participation by communities in mining projects and the benefits accruing to communities. Mining companies often perform public service functions to assist local communities to meet basic needs.

Beyond risk management and mitigation, the EI sector can also provide significant direct and indirect benefits at both the local and national levels such as employment, income, demand for goods and services, and detailed environmental data for ecosystems. Benefit sharing is best managed by developing a shared understanding between government, investors, and community of how benefits can be increased, improved, and shared. Commitments by different parties can be included in a tripartite agreement between the government, the investor, and affected communities.

Gender There is a growing appreciation of the benefits of treating gender issues as ones that are affected by extractive operations right across the EI Value Chain. Clearly, there will be distinct features of mining or oil and gas activities that have an impact on gender, but there is a trend to view this holistically. An example is a study by the NGO, Publish What You Pay, jointly with UN Women: 'Extracting Equality – A Guide'¹⁷. The driver behind such studies is an appreciation that women are often the first to bear the negative impact of extraction. Microcredit programs have also been identified as having

Mining companies, for example, can act to promote, conduct and/or require gender-sensitive social baseline assessments and social mapping, to determine the potential impacts of mining operations on gender relations in the relevant communities. Capacity building opportunities can be provided by governments and mining companies for women so that they can take advantage of business and employment opportunities in the mining sector.

¹⁶ J Southalan, *Mining Law and Policy: international perspectives* (2012), Federation Press, Annandale, p.118.

¹⁷ <http://publishwhatyoupay.org/newsroom/blog/extracting-equality-guide> (last visited March 23, 2015)

Where women and girls play an important role in the ASM sector, there have been case studies in particular countries. The Democratic Republic of the Congo is one such example, where women represent between 20 and 50 percent of the total population at mineral extraction sites¹⁸. Mongolia is another country that has attracted researchers to study gender issues in relation to mining¹⁹.

9.5.4.2 Oil and Gas

Industry has taken initiatives in addressing social impacts both through associations and individually. The main association that has contributed on social impacts from oil and gas activities is IPIECA, the International Petroleum Industry Environmental Conservation Association²⁰. For example, in addressing health risks, there have been distinct programmes such as: prevention of mother-to-child transmission of HIV/AIDS in the Republic of Congo; the use of insecticide-treated mosquito bed-nets in malaria prevention in sub-Saharan Africa. Chevron has promoted awareness of HIV/AIDS prevention for African women journalists and a health care programme in Nigeria that involves the use of river boat hospitals.

Another initiative taken at the industry level is the publication of a manual for practical step-by-step guidance on how to plan and implement community grievance mechanisms²¹. This is linked to the industry's response to the United Nations Guiding Principles on Business and Human Rights. It is based on the recognition that social and environmental impacts can vary, no matter how much a company seeks to implement best practice, and that complaints and concerns can arise that need to be addressed in a prompt, fair and consistent manner. Guidance on voluntary sustainability reporting has also been updated by the oil and gas industry to reflect among other things a need to align with the UN Guiding Principles²².

¹⁸ Partnership Africa Canada, Women in the Artisanal Gold Mining Sector in the Democratic Republic of Congo: <http://www.pacweb.org/en/gender-resource-governance>.

¹⁹ <https://www.csr.uq.edu.au/research/browse-by-theme/gender-and-mining> (last visited 11 May 2016)

²⁰ <http://www.ipieca.org/focus-area/social-responsibility> (last visited 11 May 2016)

²¹ <http://www.ipieca.org/news/20150120/ipieca-launches-new-manual-community-grievance-mechanisms-oil-and-gas-industry> (last visited 11 May 2016)

²² <http://www.ipieca.org/focus-area/reporting> (last visited 11 May 2016)

9.5.4.3 Mining

Water Mining companies like Rio Tinto and associations like ICMM have recognized the importance of water impacts and have issued their own standards and best practice guidelines for responsible water management.

Resettlement Usually, a mining company will have the right to move residents if that proves necessary. The mining agreement might lay down the conditions for doing that. For example, in the Guinea-Koumbia contract (2010), it states:

“If the Company judges the presence of Users incompatible with its mining operations under the Mining Concession, it must indemnify these Users before the date of signature of the agreement and to help them to relocate. The Company must disburse an indemnity to the Users for every resettlement or for every loss of use, habitation and crops. The above-mentioned indemnity must correspond to the amount necessary to relocate and reinstall the said Users and must encompass the fair market value of every loss²³.”

A key aspect of resettlement involves protecting the interest of the poorest and most vulnerable populations in regard to land tenure and use. This means ensuring not only that land owners are compensated, but also that compensation is paid to land users and those with housing or livelihoods dependant on the land. This includes customary land owners and users, who may not have formal rights according to the current legal system. All too often, however, providing cash compensation as an exclusive remedy is not sufficient. An additional requirement is the provision of viable alternative livelihoods and replacement land and structures for housing.

Tools that mining companies use include in Anglo-American’s case, the use of ‘resettlement planning and implementation’ in its Socio-Economic Assessment Toolbox (SEAT), and a standalone resettlement policy. This is to be used in conjunction with best practice guidelines, such as those of the World Bank/IFC.

²³ Article 15.8.

Box 9.8: Social Impacts: Special Issues

There are a number of special social risks and benefit-sharing opportunities that require very close attention. These require tripartite engagement between the investor, the government, and the community – and not just the community leaders and elite, but also representatives of the most vulnerable groups, such as women and youth.

Well-designed social mitigation measures will:

1. include the identification of established legal and customary community residents and users and their assets, crops, and livelihoods at the earliest stage practical so that they can be identified separately from any newcomers who might arrive as news of a potential development spreads;
2. specify mandatory requirements related to mitigating social risks such as community notification, information dissemination, and community consultation;
3. ensure that any involuntary resettlement takes place according to applicable laws, guidelines, and agreements in an acceptable manner to those being resettled with acceptable forms of replacement or compensation for lost land, dwellings, crops and livelihoods;
4. require the preparation of in-migration management plans, and management plans for any community-related health and safety impacts and for site security arrangements;
5. ensure that social audits take place if required;
6. undertake initiatives to reduce the dependency of the community on the mineral or petroleum operation to avoid the community collapsing when production ceases (including developing economic activities that will be able to survive when production ceases);
7. fully protect citizen populations by law, but even in countries where this is not the case, companies should respect the rights and culture of indigenous peoples and only undertake exploration or mining activity if they have well-documented evidence that their activities have the broad consent of all concerned peoples; and
8. ensure that petroleum and mineral operations offer real economic development opportunities.

Well-designed benefit-sharing arrangements will include:

1. developing a shared understanding between the government, the company, and the community of how benefits can be increased, improved, and shared and by including related commitments in a development agreement between the government, the investor and affected communities;
2. the preparation and implementation of community economic development plans supported by job skills training programs, micro-finance schemes and agreements with the company regarding community programs, local employment, local procurement, and sourcing of goods and services – all linked to the community economic development plan;
3. building the local capacity (of both government and community) to both plan and effectively implement EI sector projects with good accountability in order to avoid ‘elite capture’ of the benefit; and
4. Identifying opportunities for growth through ‘resource clusters’ and or resource growth corridors – where minerals and petroleum developments can contribute to broader regional growth.

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Box 9.10: Goal-Setting and Community Participation

Attention to social and environmental impacts and concerns, community participation has become mainstreamed to all aspects of EI sector management, impact assessment and mitigation plans, and the institutional capacity to enforce good practice are critical to success.

EI sector projects can have significant environmental and social impacts that need to be identified, monitored, managed, and mitigated. A regulatory and or audited oversight approach is needed.

However, in countries with a large EI sector and greater capacity, an approach in which the legal requirements are complemented by placing more responsibility on operators (such as those with a good track record to work within agreed codes of conduct) may prove to be equally effective and more practical. The key principle is an outcome-oriented approach to reduce and manage risks, and maximize development benefits. A well-designed environmental and social regime will:

1. have environmental standards and compliance criteria that are set in line with good international practice including the environmental and social requirements of IFIs and, in particular, the IFC Performance Standards; and
2. give particular attention to monitoring and reporting arrangements, including public reporting of, and government verification of, company-reported environmental and social data.

Also, given that most of the impacts take place at the local level, a second key principle is that development should take place based on broad-based community support and prior informed consent of the local community. A well-designed consultation and consent regime will:

1. specify regulatory requirements for a high degree of information disclosure and dissemination, notification and consultation at the local level prior to the time that decision-making takes place (for example, starting at the exploration stage and continuing through project life);
2. ensure very close collaboration and cooperation between the environmental and social authorities and EI sector ministries and/or agencies in view of the nature of the risks involved;
3. require full EIAs and SIAs or combined ESIAAs including baseline assessments, and associated environmental and social management plans (ESMPs) to be prepared for all commercial scale investments and submitted for verification and approval;
4. include separate consultations with women, youth, and other potentially vulnerable and disadvantaged groups and not be limited to just the local male leaders and elite;
5. require that information be provided to local groups in a form that is readily accessible and understandable;
6. encourage company officials to develop trust-building relationships with leaders of a broad range of different local community groups, including providing effective grievance mechanisms;
7. give due consideration to cross-border and/or regional and global environmental protection issues; and
8. provide direct support, and encourage others (such as donors), to provide support to communities for capacity-building so that communities can respond effectively in an informed manner to information received from companies.

Dealing with social and environmental impacts presents a number of challenges and special issues. Over the past several years, general principles have evolved and been largely accepted as good practice in this area. Specific instruments have been designed to ensure their effective practical implementation. Both social and environmental impacts are discussed below.

Areas of Particular Vulnerability Many mining operations are located near or adjacent to traditional lands of indigenous peoples or communities, triggering conflicts about a social licence to operate. Relevant to this problem is the principle of Free Prior and Informed Consent (FPIC), which was formally introduced through the UN Declaration on the Rights of Indigenous Peoples of 2007. It states that “[n]o relocation shall take place without the free, prior and informed consent of the indigenous peoples concerned” (Article 10). This should be sought by means of good faith consultations with indigenous peoples before governments adopt legislation or other measures that may affect those people. This is authoritative but not legally binding. IFC Performance Standard No.7 on Indigenous Peoples requires IFC clients to seek FPIC for projects that involve relocation of indigenous peoples, or that impact on the lands and resources that are in traditional ownership or customary use, or that significantly impact upon critical cultural heritage. This does not necessarily require unanimity and may be achieved even where individuals or groups in the community are in express disagreement.

The FPIC concept has recently been applied more generally to major development projects. There has sometimes been confusion about who is the responsible party for conducting and implementing FPIC: the host state or the company. Ultimately the leading role should be taken by the host state but absent the necessary capacity, it may be necessary for the mining company to assist in building it if effective consultation and consent processes are to be established.

For protected areas, not least with respect to the natural environment, an initial response is to designate such areas according to an internationally accepted scheme such as that laid down by the International Union for the Conservation of Nature and Natural Resources (IUCN). The IUCN protection area management categories are an attempt to classify protected areas according to their management objectives²⁴. They are recognized by international bodies such as the United Nations and by many national governments as the global standard for defining and recording protected areas.

An indication of the importance that the international community sets on this is given by the resolution adopted by the World Conservation Congress in 2000 recommending that its

²⁴ Guidelines for Applying Protected Area Management Categories including Best Practice Guidance on Recognizing Protected Areas and Assigning Management Categories and Governance Types: http://www.iucn.org/about/work/programmes/gpap_home/gpap_capacity2/gpap_pub/gpap_catpub/?13959/Guidelines-for-applying-protected-area-management-categories (last visited 11 May 2016)

members “prohibit by law, all exploration and extraction of mineral resources in protected areas corresponding to IUCN protected area management categories I-IV”.

For culturally significant sites, there is a code of industry good practice guidelines such as the IFC’s Performance Standards and the ICMM Principles.

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