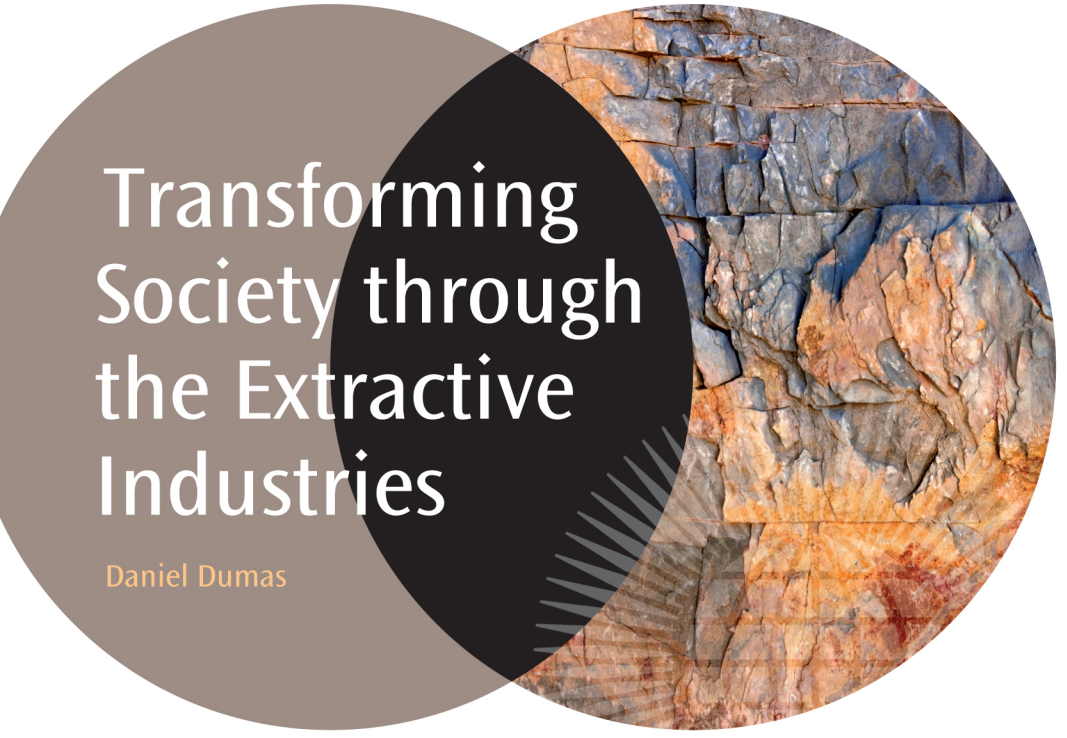
Transformation of Societies Series



Transforming Society through the Extractive Industries

Daniel Dumas

COMMONWEALTH SECRETARIAT

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Commonwealth Heads of Government, meeting in Kampala, Uganda, in 2007, called upon the Commonwealth Secretariat to pursue a programme of work aimed at helping member countries to better understand the challenges, opportunities and limitations involved in achieving societal transformation – improvement in the quality of life of citizens and the achievement of a more equitable international society free from poverty, ignorance and disease. The resulting Transformation of Societies Series explores the idea of societal transformation in a number of contexts. By providing examples of how Commonwealth members have responded to the challenge of transforming their societies, the series seeks to maximise and share the wealth of knowledge and experience regarding social, economic and political transformation so as to help improve the prospects of achieving societal transformation for all.

Views and opinions expressed in this publication are the responsibility of the author and should in no way be attributed to the institutions to which he is affiliated or to the Commonwealth Secretariat.

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Foreword to the Transformation of Societies Series

In November 2007, Commonwealth Heads of Government adopted the Kampala Declaration on Transforming Societies to Achieve Political, Economic and Human Development. The Declaration reaffirmed the Commonwealth's commitment to raising living standards and to achieving a more equitable international society free from poverty, ignorance and disease. This requires social and economic transformation.

Recognising that the challenges faced in transforming societies require international collaboration and co-operation, Commonwealth leaders committed 'to explore ways in which each of us can share and strengthen our relations with each other, in order to support transformation for us all'.

This *Transformation of Societies* series is part of the Secretariat's response to the mandate of facilitating transformation across Commonwealth member countries. The series includes a number of sectoral and thematic case studies, which discuss political, economic and social transformation.

The Secretariat acknowledges that there is, no doubt, more than one route to achieving successful transformation. Nevertheless, by identifying some of the mechanisms and policy measures that have triggered a process of transformation across different sectors of society, we hope that this series may provide useful insights to developing Commonwealth member countries.

Ransford Smith
Deputy Secretary-General

Introduction

This paper focuses on a specific sector – the extractive industries – and discusses how governments of resource-rich countries can ensure that the extractive industries can transform society for the better and minimise the incidence of instability and conflict.

Extractive industries have real potential to transform societies for the better. With the right conditions, extractive industry activity can create jobs, strengthen the domestic private sector, fund public service improvements and contribute to infrastructure development. Extractive industries can also contribute to inflows of foreign investment, export earnings, government revenues and national income.

However, fulfilling this potential is neither assured nor automatic. The extraction of non-renewable natural resources (notably oil, gas and minerals) has often led to political instability, revenue management challenges, corruption and increased social tension. It is therefore necessary for resource-rich countries to improve legislative and regulatory frameworks, build institutional capacity and strengthen governance, in order to ensure that the natural resource blessing does not become a curse.

This paper is divided into three sections: national impacts, regional and local impacts, and policy recommendations, and is illustrated by case studies of good practice from across the Commonwealth: on revenue management innovation in Trinidad and Tobago; mineral extraction policy and legislation in the Cook Islands; and on the utilisation of domestic gas resources in Tanzania to supply electricity for the local population.

1 National Impacts

Macroeconomic and socio-political issues

Extractive Industries and Economic Growth

The discovery of large reserves of non-renewable natural resources, such as oil, gas, or minerals[1] , may represent a one-off opportunity for a country to transform its society. In the words of the United Nations Industrial Development Organization, 'the process of harnessing natural resources in the context of development is fundamentally about transforming assets that are below the ground into productive assets above the ground.'[2] Many developing Commonwealth countries are endowed with an abundance of natural resources that have the potential to make a significant contribution to economic growth and development.

A thriving extractive sector can spur wider development in other sectors of the economy and raise domestic output, contribute to poverty alleviation, and expand the tax base to the government. Moreover, extractive sector development often leads to a significant increase in exports. Typically, companies in the extractive industries (EI) will base their investment plans on selling product into international markets (since domestic markets, especially in developing countries, can rarely absorb the total production), thus allowing EI to make a significant positive contribution to the trade balance and generate valuable hard currency, vital for imports of energy, foodstuffs and manufactures.

One might, therefore, expect to see a positive correlation between EI activity and GDP. Yet, as figure 1 demonstrates, EI activity does not always necessarily translate into higher per capita GDP.[3]

1 For the sake of brevity, the term 'natural resources' will be used for the remainder of this paper to refer to oil, gas, or minerals.

2 UNIDO, *Industrial Development Report 2009.*

3 GDP/capita: IMF, *World Economic Outlook*, October 2009. EI to GDP: British Geological Survey, *African Mineral Production 2001–2005*; EITI: British Geological Survey, *South America Mineral Production 1997–2006*.

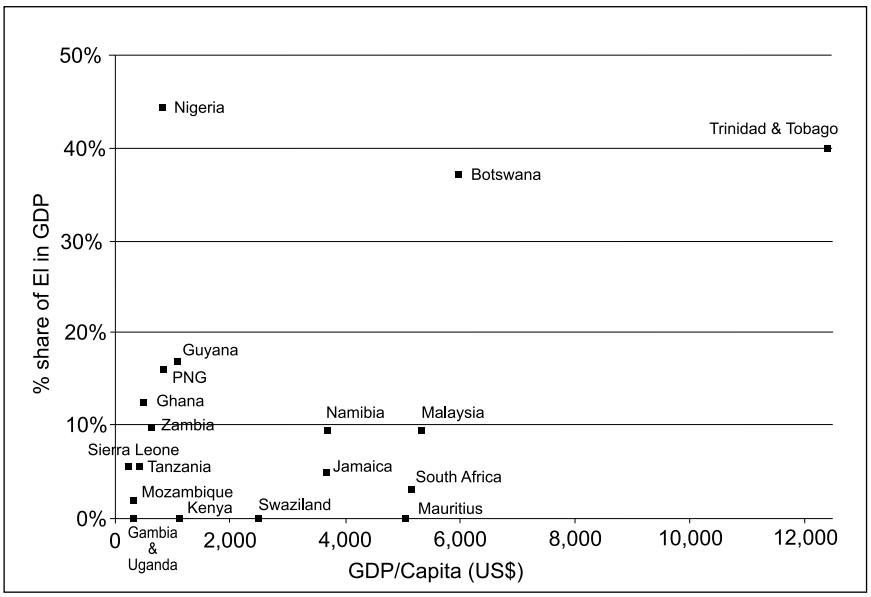

Figure 1. The contribution of EI to GDP vs GDP per capita (2005)

Indeed, counter-intuitive as it may seem, the evidence, in fact, shows that developing countries with significant EI also often demonstrate slower economic growth than their non-resource-rich counterparts. A 2005 World Bank report,[4] looking at economic performance in the 1990s of countries with substantial EI sectors, showed not only a negative correlation between the EI contribution to GDP and overall GDP growth, but also that those countries most reliant on EI had a greater instance of experiencing negative growth over that period. This is a major issue since the extractive sector represents a significant percentage of total export revenues in several countries of the Commonwealth, as illustrated in figure 2.

4 World Bank, *Extractive Industries and Sustainable Development*, 2005.

Country	*Region*	*Share of export revenue*	*Product description*
Nigeria	Africa	Over 90%	oil
Brunei Darussalam	Asia	Over 80%	oil
Botswana	Africa	Over 80%	diamonds, copper, nickel
Zambia	Africa	Over 60%	copper, cobalt
Trinidad and Tobago	Caribbean	Over 60%	oil and gas
Jamaica	Caribbean	Over 60%	alumina, bauxite
Mozambique	Africa	Over 40%	aluminium
Papua New Guinea	Pacific	Over 35%	gold, copper
Ghana	Africa	Over 30%	gold
South Africa	Africa	Over 20%	platinum, gold

Figure 2. EI share of export revenue for sampled Commonwealth countries[5]

An obvious conclusion from this finding is that it is clearly risky for countries to be overly reliant on EI as a driver of economic growth. Even though countries such as Botswana and Trinidad and Tobago – both with EI contributions greater than 20 per cent of GDP and both with a GDP per capita higher than $5,000 – have benefited from a sizeable EI contribution to their economies, it is evident that, too often, there has been a failure to maximise the potential benefits of EI activity. This has usually been due to governance weaknesses, as well as the inherent characteristics of EI activity discussed below.

Revenue uncertainty and volatility

Because the level of extraction can vary from year to year, and commodity prices also fluctuate significantly, revenues from EI activity tend to be highly volatile. One example here is oil prices. From about 1985 to the early 2000s, a barrel of oil was mostly in the $20–$30 range (with a short decline to $15 in 1998). The upward shift to the $40–$70 per barrel range in the early 2000s was seen by some analysts as a temporary discrepancy, and that prices would rapidly revert to their lower historical range. Then, in July 2008, oil prices reached an all time high of $145 per barrel. It is now unclear what constitutes the new baseline for oil prices, though with many indications (including from the International Energy Agency) that the global oil supply has now peaked, a return to the $20–$30 range appears to be highly unlikely. An upward and increasingly unpredictable long-term price trend is probable as demands increase on a globally dwindling supply. This translates into volatile revenues for governments and uncertain profitability levels for companies.

5 United Nations Conference on Trade and Development (UNCTAD), *World Investment Report: Transnational Corporations, Extractive Industries and Development*, United Nations, 2007, page 87.

Dutch disease

EI activity can lead to macroeconomic destabilisation and other negative economic impacts, particularly when there is limited economic activity beyond the extractive sector. For example, the large earnings from natural resource extraction can lead to the 'Dutch disease' phenomenon (so called because it first occurred in the Netherlands), involving exchange rate overvaluation, which in turn causes a decline in the competitiveness of other economic sectors. The national economy thus becomes over-dependent on the extractive industries and, due to the inflationary pressures associated with exchange rate overvaluation, the country may often face an increased cost of living. The country can become extremely vulnerable once the resources are exhausted. These issues are discussed in more detail in the revenue management section below. However, as shown by the Trinidad and Tobago case study on page 28, prudent fiscal policy can help to avoid at least some of the symptoms of Dutch disease.

State and public participation in extractive projects

Some governments have tried to maximise their share of benefits from the extractive sector by participating in projects. However, this is not without its risks. Government participation affects the risk-reward balance for investors, and if the government does not bear the full risk proportionate to its share, an investor will seek to get compensation for taking it on behalf of the government. Typically in a joint venture participation undertaken on a commercial basis, the government would pay for its share of equity without the help of an EI company.

Experience in several countries indicates that where the government chooses to set up a publicly-owned oil, gas or mining company, the entity should be legally independent from the government, it should operate transparently (preferably subject to the same reporting requirements as private sector companies) and it should bid for projects competitively, subject to the same market forces as publicly-traded companies. These measures can help to avoid corruption, market distortion or the creation of a monopoly. In addition the publicly-owned company should avoid conducting any regulatory or other sector oversight function, as this can easily create conflicts of interest.

Social tension, poverty and conflict

The benefits of EI activity are rarely evenly distributed. As discussed in the second section of this paper (page 23), those who tend to see least benefit from EI activity are often the local communities where the extraction takes place. This may explain the evidence pointing to a high positive correlation in several countries between EI activity and socio-political instability – though it should be recognised that the discovery of oil, gas and minerals *per se* may not lead to instability, but could worsen existing social tensions, particularly in the absence of strong governance systems.

Many academics[6] have studied the link between EI and political instability. In general, these studies have indicated that the presence of natural resources may increase the risk of conflict in four ways: by affecting a country's performance in other economic sectors; by making government weaker, less accountable and more prone to corruption; by giving the populations of resource-rich regions incentives to seek independence from central government; and by providing financial resources to support political insurrection. The presence of natural resources can therefore become part of a complex set of factors that ultimately leads to political instability.

Too often, EI activity appears to increase a country's poverty. In contrast to sectors such as agriculture where economic gains are often well distributed among a wide percentage of the population, the economic benefits of EI activity tend to be concentrated in the hands of a 'lucky few'. There also appears to be a link between military spending and the presence of natural resources. To compound matters, expenditure in health and education may be even lower than in peer countries which do not rely on extractive industry revenue for their budgets.

However, none of these problems are inevitable. Examples such as Botswana, Trinidad and Tobago and, historically, Canada and Australia demonstrate that it is possible to use natural resource wealth to transform society for positive ends. Botswana today – with mineral exports comprising almost 90 per cent of the country's total exports – has one of the highest rates of GDP per capita in sub-Saharan Africa and the smallest number of people living below the poverty line. Looking at these and other successful countries, what is clear is the importance of legal, fiscal and commercial frameworks, the strength of institutions and ensuring good governance.

The 'frameworks-institutions-governance' concept

Three interlinked components appear to be necessary to ensure successful oversight of EI activity: well-enforced legislative and regulatory frameworks; strong institutions with adequate capacity; and good governance according to widely-shared principles.

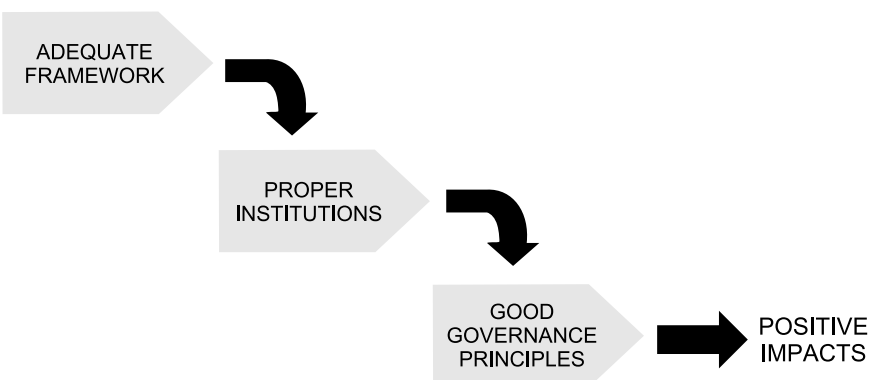

Figure 3. The three interlinked components for successful oversight of the extractive sector

6 Examples include Professor Michael Ross of UCLA and Professor Paul Collier of Oxford University.

Adequate frameworks are legal and regulatory arrangements including sector laws, fiscal regimes, production sharing arrangements, revenue management laws, licensing and any other secondary legislation and regulations that are required in order to provide the rules and laws in which EI activity occurs.

Proper institutions include a mining or petroleum department with qualified and competent personnel including commissioners and inspectors; competent tax authorities with technical expertise and access to technical assistance[7] in the complex field of EI taxation, as well as an environmental unit and other departments relating to the field of resource extraction.

Good governance principles are essential. The concept of governance is a complex one but is defined broadly for the purposes of this paper as the authority and capability of institutions to perform a clearly-defined role, and the ability to draw on the support of political leadership where necessary.

Each of these criteria is discussed in more detail below.

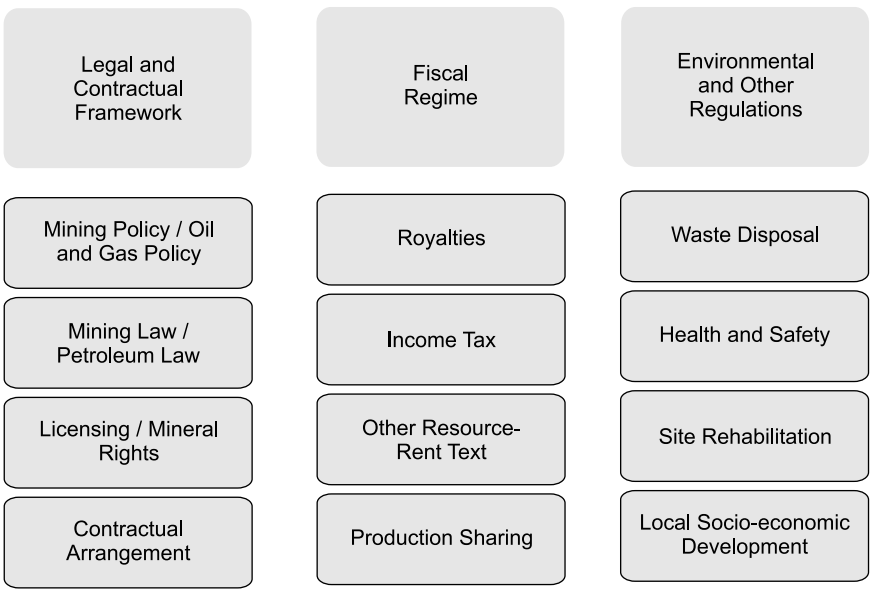

Figure 4. Examples of a legal, fiscal and regulatory framework to underpin successful EI activity

7 Within the Special Advisory Services Division of the Commonwealth Secretariat, the Economic and Legal Section provides extensive assistance to member countries in establishing legal, fiscal and commercial frameworks to govern mining as well as oil and gas activities. The objective is to help countries secure foreign investment while maximising the economic and social benefits accruing from these activities. The scope of interventions covers developing policies and laws, fiscal regimes, production-sharing agreements, revenue management and integrating issues of procurement, health and safety as well as environmental aspects such as climate change considerations and site closure and rehabilitation.

Adequate frameworks

Legal and contractual framework

The legal and contractual framework and the development of fiscal policy measures should help maximise the benefits of natural resources activity for the country, local communities and wider society, coupled with measures to minimise and manage the potential negative social and environmental impacts of EI activity.

There are several reasons why comprehensive and well-implemented legislative and regulatory frameworks are essential to the governance of EI activity. As a first step, foreign investors require a minimum of rules before making a positive investment decision, because of 1) the long-term nature of the investment; 2) the extremely high capital intensity of the industry, especially in mining; and 3) the immobility of assets once built. The level of investment required to develop a natural resources project can be even higher than comparable industrial activity due to deficient infrastructure – EI activity requires (among other things) reliable roads, bridges, power and water. All of these factors mean a large-scale extractive project can be beset by risk. For countries hoping to attract foreign investment, macroeconomic and socio-political stability, proper legal frameworks are essential prerequisites.

In devising legal and contractual frameworks, it is important to entrench internationally accepted standards and practices concerning natural resource sector administration and management. However, this needs to be done in a manner that is tailored to the particular circumstances of the countries concerned. This includes making appropriate provisions in legislation that reflect best international practices for transparency in decision-making, together with measures that are designed to uphold accepted standards of corporate responsibility for companies, as well as enhancing the developmental benefits for local communities in areas where extraction occurs. The Cook Islands case study on page 12 shows how one country is setting up a robust legislative framework for minerals extraction well in advance of the commencement of EI operations.

Environmental framework

Decision-makers in the natural resources sector should apply internationally accepted best practice in environmental management.[8] This includes legal and policy measures that underpin environmental safeguards such as environmental impact assessments as a prerequisite for the granting of rights to companies to engage in oil, gas and mineral exploration and development, as well as measures to support effective environmental monitoring and the mitigation of environmental damage.

8 For example, the International Financial Corporation (IFC)'s Social and Environmental Performance Standards.

Fiscal framework[9]

Arrangements for the fiscal framework must balance international competitiveness (in order to attract and sustain foreign investment in the natural resources sector) with fiscal benefits for the host country. This is not an easy balance to strike, though at least one important feature of an adequate fiscal regime is its progressivity. A progressive regime ensures that the government will be in a position to capture a higher share of fiscal benefits generated from EI activity as a project's profitability increases.

There has been significant debate about whether terms should be fixed or negotiated on a project by project basis. Indeed, the practice of making agreements on a project by project basis is currently being revisited, particularly in instances where the terms were negotiated in a non-transparent manner. Governments have typically justified such secrecy on the basis that large-scale mining poses a unique public administration challenge beyond the scope of the general tax system and that it was necessary for deals to take place behind closed doors in order to enhance the government's bargaining power.

In practice, large companies may have the upper hand in private negotiations because they are able to fund greater legal and financial resources than the government. Also some countries have entered into a 'race to the bottom', whereby governments competed with each other by offering more and more favourable terms in order to attract foreign investment, to the detriment of the country's development.

Experience therefore suggests that, in general, one-on-one negotiations between governments and companies have generally led to more favourable terms for the companies. This in turn implies that governments would serve the interests of their countries more effectively by moving towards fixed terms for investors, and conducting negotiations on an open and transparent basis.

The essential role of institutions

In many countries, adequate legislative and regulatory frameworks already exist, but implementation has been a challenge due to a lack of public administration capacity. Strong institutions are particularly important to the oversight of EI activity and they need to cover the same broad categories as the frameworks: legal and contractual; fiscal; and environmental. For instance, the first set of institutions would include a mining or petroleum department that handles the activities of the sector, including implementation and monitoring of contractual agreements and management of licensing and mineral rights. This could be complemented by an independent petroleum or mining board that

9 For a full discussion of different fiscal frameworks in mineral-rich countries, see *Minerals Taxation Regimes: A review of issues and challenges* Commonwealth Secretariat and International Council on Mining and Metals, 2009, http://www.icmm.com/page/12880.

would ensure additional oversight of the sector. The second category of institutions relates to revenue collection and finance, with the core institutions including the tax and customs authorities. The Auditor-General could also play an important role, especially in countries where there is a national oil (or mining) company. The third category relates to institutions responsible for managing environmental and other issues, such as health and safety, waste disposal and site rehabilitation.

Institutions are often the weak link in the concept of 'frameworks-institutions-governance'. Frameworks may have been developed and reviewed with the assistance of international organisations such as the World Bank, UN agencies, or the Commonwealth Secretariat. These frameworks reflect international best practice and include provisions covering the whole spectrum of issues arising from EI activity. Unfortunately, institutions often lack the moral or practical authority to monitor compliance with these frameworks. They may also have insufficient resources to operate and effectively ensure that the frameworks are implemented. Worse, local institutions may simply be by-passed by the political elite. As a result, the frameworks are often not properly and fairly administered. For instance, tax authorities may lack capacity to determine tax payments, audit companies' tax filings and adequately challenge these filings if necessary, in order to ensure full tax collection.

Another consideration is to strike a balance between the potential revenue collected by a fiscal regime, and the costs of actually administering collection of the revenue. Administration and enforcement costs may include the development of effective tax filing and auditing systems, hiring and training additional tax commissioners, and contracting EI accounting specialists. In some countries where tax receipts from EI activity can represent 20–40 per cent of total government revenue, it is not unusual to find only a few commissioners to deal with a number of oil, gas and mining companies representing millions of dollars of revenues.

Some governments have faced difficulties in deciding whether to open up to resource extraction before a well-structured and well-staffed system is available, or whether to wait until all the elements are in place before seeking foreign investment. A possible way out of this deadlock may be to subject EI companies to as simple a system as possible initially, perhaps the existing general tax system. To avoid the risk that an initially simple regime that was intended to act as a temporary stop-gap will remain permanent, this approach should be accompanied with a clear roadmap for the strengthening the system and building implementation capacity over time.

CASE STUDY 1: The last frontier: Deep Sea Mining – Developing an efficient regulatory framework in the Cook Islands

The islands and the resource

The Cook Islands comprises 15 widely dispersed islands in the South Pacific Ocean between French Polynesia and Fiji. The total land area of the country is 240 square kilometres, while the Cook Islands' exclusive economic zone covers a maritime area of nearly 2 million square kilometres. Being a small island state with a population below 25,000 inhabitants, the extractive industry could be either a blessing or bring unwelcome disturbance to the socio-economic balance, the political stability and the historical peacefulness and quality of life of the islands. The smaller the state, the more fragile this balance often is.

Manganese nodules were first discovered on the ocean floor in 1803. Since the 1960s manganese nodules have been recognised as a potential ore source, investigation of which has been stimulated by the progressive depletion of land-based mineral resources. These nodules are formed by metallic elements that slowly precipitate out of the ocean water. The most abundant element is manganese, but the nodules are actually polymetallic and include other minerals such as cobalt, an extremely valuable metal due to its intrinsic properties and its use in super-alloys. Not only is the estimated Cook Islands nodule resource extremely large, but also the nodules can occur in very high densities (up to 60 kg/m2) and they appear to have one of the highest cobalt content recorded in the Pacific.

Getting it right, from the start

The favourable global investment climate and upwards direction in commodity prices over the past decade are motivating companies to consider pursuing the exploitation of unconventional resources that were previously uneconomic or were marginally profitable. This includes deep seabed mining, particularly for polymetallic nodules. In recent years, mining companies have been positioning themselves to secure the rights over these resources. Occasionally, governments have been placed under considerable pressure by mining companies to allocate rights to engage in seabed mining, notwithstanding the lack of a proper and effective framework under which to manage and regulate the activity. The challenge for the Cook Islands has been to plan for the future commencement of seabed mining, and to establish good practice principles with regards to the management of natural resource wealth for the successful positive transformation of society. Because the potential global value of the main minerals (cobalt, nickel and copper) can represent billions of dollars, the question is not whether transformation will occur but rather if the government will be able to properly manage revenue generated by seabed mining for the benefit of current and future generations of Cook Islanders, whose living has traditionally depended on tourism, agriculture, and the pearl trade.

Legal and regulatory preparedness

As discussed in this report, one of the key ingredients to ensure that the country is positioned to reap the successful benefits of the extractive sector in positive societal transformation is the existence of regulatory capacity to cater for the effects of wealth created from the sector. So far, the Government of the Cook Islands has taken all the right steps.

The National Seabed Minerals Policy (National Policy) adopted in 2009 forms the basis for the management and regulation of the seabed minerals sector in the Cook Islands. To this end, the National Policy sets out a series of governing principles for the management of the sector, which are intended to ensure that the seabed minerals sector is managed in a predictable, transparent and efficient manner and to encourage private sector investment. It also guarantees that the Cook Islands is positioned to capture and benefit from a fair and equitable share of revenue generated from seabed minerals activity, and ensures that such revenue is wisely invested for public benefit.

The Government has also developed a comprehensive law to underpin the regulation of the seabed minerals sector, in the form of the Seabed Minerals Bill 2009. The Bill is intended to give effect to many of the measures outlined in the National Policy, and will establish a comprehensive regulatory regime that addresses important issues such as licensing, monitoring, compliance, enforcement, royalties and other financial requirements, health and safety and environmental management.

Institutions and governance

The Government is establishing an institutional framework for the management and regulation of deep seabed mining. This is to ensure that the seabed minerals sector is managed in an efficient and effective manner, based on accepted standards of institutional governance and regulatory practice. The National Policy provides for the establishment of specific government agencies and bodies through legislation, which will be empowered to exercise specific responsibilities for aspects of the management of the seabed minerals sector. For example, a new National Seabed Minerals Authority will be created for the purpose of the day-to-day management of the sector, including the granting of rights to mining companies to engage in seabed minerals activity, together with responsibilities for monitoring, compliance and enforcement. Provision has also been made for the establishment of a Seabed Minerals Advisory Board, which will operate as a consultative mechanism between the Government and the people of the Cook Islands on matters relating to the management of the seabed minerals sector of the country.

Capturing rent for the Cook Islands

One important factor to optimise benefits for transforming society is through maximising government revenues. The peculiarities surrounding the value chain of deep seabed nodule mining in the Cook Islands is such that caution is being exercised in the determination of how best to capture rent for the Government. The unique characteristics of deep seabed mining (particularly in relation to polymetallic nodules), combined with the particular circumstances of the Cook Islands, underscores the need to develop specific fiscal arrangements, which will address these unique features.

Ensuring transparency and sound revenue management

The central pillar in the new regulatory regime in the Cook Islands is transparency – both in the allocation of rights to mining companies to engage in seabed minerals exploration and development, and also in terms of the public disclosure and management of revenue generated by seabed mineral activity.

To ensure that the revenue generated is properly recorded and managed for the public benefit, the National Policy expressly adopts key elements of the Extractive Industries Transparency Initiative (EITI) Principles and Criteria. This includes the implementation of the principle that industry should be required to publish, at regular intervals, information concerning payments made to Government to a wider audience in a publicly accessible, comprehensive and comprehensible manner. Accordingly, under both the National Policy and the new legislation that implements it, mining companies will be legally obligated to publish details of royalties and any other contractual payments made to the Government in connection with seabed minerals activity.

The National Policy also expressly provides for the establishment of financial mechanisms to provide for the rule-based management of revenue generated by seabed minerals activity in the Cook Islands. The basis for the establishment of mechanisms of this kind is to ensure that the Government is positioned to provide for the management of revenue for the long-term benefit of the country.

Maximising the benefits for Cook Islanders

The National Policy provides measures and initiatives through which the contribution of the development of the seabed mineral resources to sustainable economic development and economic empowerment of the Cook Islanders is ensured. Many of these measures will be incorporated within the new legal framework including: requiring mining companies to develop proposals for the employment and training of Cook Islanders and to provide an agreed level of funding for education in seabed mineral operations and related disciplines; requiring companies to develop proposals for the local procurement of goods and services, requiring mining companies to develop social amenities and infrastructure; and requiring mining companies to

address post-mining economic viability issues for local communities in their mine development proposals.

These and other requirements contained in the National Policy are guided by three operating principles: empowerment of Cook Islanders, corporate social responsibility, and collaboration between the mining companies and Cook Islands communities.

Conclusion
The Government of the Cook Islands has reached an advanced stage in the development of a comprehensive legal and regulatory regime to oversee deep seabed mining operations and to govern the management of revenue generated from such activity. What is remarkable about this work is the effort being made by the Government to adopt policies and implement practices that are intended to ensure that present and future generations of Cook islanders will benefit from the development of the country's deep seabed minerals.

Good governance principles

Institutions must have a clearly defined role, and they must have the authority and capacity to perform this role, with the support of the political leadership where necessary. Widely-shared good governance principles are essential in order to clarify who has the authority – set by the law, rules and regulations – to take a decision, and in turn ensure that these decisions are in line with the law, rules and regulations. The primary challenge is often interference, particularly political interference.

Another challenge is discretionary behaviour, which bypasses checks and balances and processes in place to govern EI activity and which may be exercised in the granting of exploration licences and mining rights, or in the terms that are given to EI companies. Such behaviour has been justified on the basis that relevant institutions may take too long to arrive at the necessary decisions.

Part of the answer to these problems is to ensure a clear separation of powers: members of parliament and ministers should be responsible for putting in place adequate legislation and proper institutions. Once this has been done, well-resourced, independent institutions can apply the regulations and pursue their mandate to oversee EI activity.

Transparency

Transparency is a recurrent term in current discussions of good governance and EI activity (see box 1). It refers to the principle that key decisions about EI activity are made openly and publicly wherever possible. It means that individuals or Agencies who

make these decisions are held accountable for them, and should be prepared to justify and explain them in terms of the interests of the country. The principle of transparency does not necessarily mean that all proprietary information has to be made public, nor does it involve providing information that is legally protected.

Transparency is not a panacea but it can help to open up conversations about EI activity, which in turn can strengthen governance. Transparency can help to curtail not only interference but also discretionary behaviour in the administration of the various regimes. Also, when the scale of EI revenue flows becomes public, this inevitably leads to questions about how the government is allocating the money. This is where sound revenue management is critical.

Box 1. The Extractive Industries Transparency Initiative

The Extractive Industries Transparency Initiative (EITI) is a global reporting standard requiring governments to publish payments they receive from EI companies and for companies to publish what they pay to governments, in a process that is observed by civil society organisations. Twenty-nine countries are so far implementing the EITI as 'candidate countries' (including seven Commonwealth members[10]), with two countries (Azerbaijan and Liberia) that are now 'EITI compliant'.

Implementing the EITI is not a straightforward process – as suggested by the fact that only two countries have so far achieved compliance – but it has been endorsed by many major governments, donors, EI companies and international civil society groups.

www.eitransparency.org

The importance of revenue management

EI revenues have too often been used not for positive social transformation such as health and education initiatives, but for short-term or narrowly political agendas. Sound revenue management will ensure that the correct balance is struck between saving EI revenues for future generations, and spending current EI revenues on projects with long-term benefit. Five issues are of particular importance to ensure sound revenue management: stabilisation; sterilisation; savings; socio-economic growth; and safety.

Sterilisation

EI activity tends to create pressure on the domestic economy due to the inflow of investment capital, higher employment at relatively high wages and increased export revenues. All of this economic activity tends to increase demand for goods and services

10 Cameroon, Ghana, Mozambique, Nigeria, Sierra Leone, Tanzania and Zambia.

and on the labour market, as well as creating inflationary pressures which can negatively impact industry and economic actors not involved in the extractive sector.

Normally when companies or individuals pay taxes to the government, it reduces disposable income. In other words, money earned by companies or individuals is either spent, or transferred to the government as a tax: it is a 'zero-sum game' (if we exclude savings). However, in the case of EI activity, because of the additional wealth created, both disposable income *and* tax revenue increase. This in turn is likely to put the overall economy out of balance and create inflationary pressure. Without sterilisation measures to combat this (for example by investing some of the money overseas) Dutch disease impacts are more likely to occur. Even with sterilisation measures in place, Norway, which had invested almost all of its petroleum revenues outside the country, still suffered from inflationary pressures in its economy and ended up with a very high cost of living.

Stabilisation

Revenues from EI activity show greater variations over time than possibly any other sources of government revenue, partly as a result of fluctuations in commodity prices. Governments tend to develop a dependence on these revenues in their budgetary planning. It is a real challenge to create a budget that can withstand a temporary decline in commodity prices and natural resource revenues without having to substantially alter economic policy.

The idea of stabilisation is particularly important in the case of mining since minerals prices, in the long run, tend to have a cyclical pattern. This is mostly true for 'base metals' such as zinc, copper and nickel. The phenomenon is less obvious for precious metals, especially gold, because of their nature and the fact that they also play the role of 'refuge investment'. For base metals however, stabilisation can be very effective. Chile, for instance, has been managing the fluctuation of copper prices very effectively through a stabilisation fund mechanism in which revenues are put aside when the price of copper and corresponding revenues are very high, and can be drawn upon when copper prices are at the lower end of the cycle. As a result, the government of Chile has been able to cope relatively well with the 2008/09 global economic downturn and depressed commodity prices.

For oil and gas, stabilisation is less straightforward since this predictable cyclicality does not exist – oil and gas prices do not appear to follow a mean-reverting pattern. The price of oil in particular is affected by too many factors in the short, medium and long term, such as the ability of some large producers such as Saudi Arabia, to reduce or increase supply at very short notice. As noted above, a long-term upward trend in oil prices is likely, due to increasing demands on a increasingly expensive and volatile global supply.

Governments of oil-rich countries can set thresholds for prices beyond which money is either set aside in a stabilisation fund or drawn down from the fund if the lower threshold is reached. A challenge is to determine the level of these thresholds, given both the short-term uncertainty of price and its long-term upward trend. However in some countries, such as Trinidad and Tobago, a stabilisation fund has been established relatively successfully (as described in the case study on page 19).

Socio-economic development

Although some EI revenues should be put aside for future generations, long-term investments in infrastructure and socio-economic projects can be made while EI activity is still ongoing. Such projects might include roads, education, healthcare, skills, knowledge and technology. This work can be delivered through the state budget.

In practice, managing an increased budget properly, and avoiding waste, is not straightforward. Once the population becomes aware of available funds, the government is likely to find itself under pressure to increase expenditure. Although some socio-economic projects may have long-term benefits, spending and investment decisions can become highly politicised. In this climate, short-term benefit projects, rather than long-lasting ones, can often become the norm.

There is also the issue of whether local government should receive a share of the additional revenues. As discussed below, challenges can arise with redistribution unless the central government takes into account the local absorptive capacity as well as the technical and institutional capacity to deliver programmes and manage projects. Some additional revenue can therefore be invested in increasing the effectiveness of public spending, for example by creating structures for project monitoring and evaluation.

Experience suggests that increasing current expenditure on items such as subsidies and wages to other sectors can be ineffective as it can fuel demand and have negative macroeconomic consequences. By contrast, expenditure to improve communication, power and transportation infrastructure can stimulate development of the non-EI sectors (as demonstrated by the case study on Tanzania on page 28). Health and education projects can also be beneficial for long-term development if appropriately targeted towards primary and secondary education and primary healthcare.

One common mistake is to underestimate the long-term financial and human resource requirements for maintaining new projects, such as upkeep and repair costs for infrastructure, schools or hospitals, or budgetary provisions to cover the salaries of teachers, nurses and doctors. Too often governments have spent considerable sums of money on ambitious projects that have rapidly become ‘white elephants’ because of the high, unaccounted-for costs of operation and maintenance, and the subsequent drain on resources due to the remedial measures.

CASE STUDY 2: Effective wealth management as an engine for transformation: The Trinidad and Tobago Heritage and Stabilisation Fund

Trinidad and Tobago is a good example of a country that has taken positive steps towards responsible and effective natural resource revenue management, having successfully overcome early challenges. With oil and gas representing over 40 per cent of the country's GDP, 90 per cent of exports and close to a half of total government revenue, EI are clearly at the heart of Trinidad and Tobago's economy. For oil, the country greatly benefited from the additional revenues accruing from the 1973-74 and 1979-80 price shocks. However, the subsequent collapse in prices from the mid 1980s and the 1990s led the country to perform sharp fiscal adjustments, resulting in major negative economic impacts: output per capita decreased by almost one third and unemployment more than doubled. The need to stabilise EI revenues became clear and the government set up the Interim Revenue Stabilisation Fund (IRSF) in 2000.

In 2007, the scope of the IRSF was expanded and it was legally renamed as the Heritage and Stabilisation Fund (HSF). Its objective was to capture part of the EI revenues for stabilisation, with an added objective of saving for future generations.

Surplus petroleum revenues

The remit of the HSF is to save and invest surplus petroleum revenues derived from the country's upstream production activities for two primary purposes. First, the fund will be used to sustain public expenditure during periods of revenue shortfalls triggered by drops below set thresholds for oil and gas prices. The second objective is to provide an alternative stream of income to sustain public expenditure capacity when the EI revenue stream starts to decline.

The operational structure of the HSF is based on set trigger point for deposits and withdrawal. Deposits are made to the fund when petroleum revenues collected over a certain period exceed by 10 per cent the estimate for that period. If collected revenues fall below 10 per cent of the estimates for the set period, there are mechanisms by which the shortfall is met.

Critical success factors

This kind of fund has only been successful in a limited number of countries. The structure and governance principles of the HSF are therefore fundamental to its success. It is also important that its objectives are well-defined and free from conflict. More importantly, experience has shown the necessity of mechanisms for deposits and withdrawals that are clearly defined and that do not leave too much discretionary power over the number and level of the transactions in and out of the Fund's account. While there are concerns over the Fund's combination of stabilisation and savings roles, there are clearly specified mechanisms on how this structure is managed. In the event of a sustained downturn in petroleum revenues, the law sets a floor beyond which no withdrawals can be made from the fund.

Another useful aspect of the structure is the separation of the Fund from the country's international reserves. Without this separation, there could be ambiguity with regards to the investment objectives of the Fund versus the management of the government's international reserves.

Good governance, transparency and accountability are crucial to the success of this type of fund. The governance structure of the HSF is specified by Parliament, which provides legislative oversight. This has given the people of Trinidad and Tobago the opportunity to assess its performance transparently. One of the measures by which accountability is ensured is through the legislative requirement for periodic reports on holdings, performance and risks, as well as independently-audited financial statements.

Wider transformation

The role of the fund has expanded beyond the geographic confines of Trinidad and Tobago, mainly through contributing to such regional efforts as the CARICOM petroleum fund. The main aim of the broader fund is to provide financial and technical assistance to less advantaged countries. The fund has financed a number of socio-economic development projects as well as infrastructure projects such as the construction of an airport in St Vincent. However, the long-term success of the fund lies in the will of its management to maintain its guiding principles. The more revenue that accrues to the fund, the higher the likelihood of pressure to spend it on short term projects.

What about Dutch disease?

The extractive industry has been a blessing for Trinidad and Tobago. As a result of economic reforms adopted in the early 1990s, tight monetary policy, and their prudent approach in managing oil and gas revenues, the country experienced an average real GDP growth rate of around 8 per cent per year over the last decade. Per capita income has almost tripled from US$7,000 to US$20,000, more than twice the regional average. This, however, has not happened without some Dutch disease impacts: the economic boom has been accompanied by inflation approaching double digits; real estate prices have been soaring, even with government programmes to increase the supply of houses; and rapid growth has brought to the forefront serious capacity constraints in the labour market and pressure on infrastructure, especially utilities. Rising incomes also seem to have led to lagging agricultural production, which has been in constant decline since the development of the extractive industries.

Saving for future generations

Natural resource reserves may be depleted within a period of decades, creating the prospect of great wealth followed by poverty for future generations – unless investments are made for the long term. This means that some of the revenue generated by the EI activity should be saved in order to provide income after the natural resource has been depleted. It also means that revenues invested during the period of EI activity should fund long-term development projects designed to contribute to economic diversification where possible.

Safeguarding EI revenues

The idea of savings revenues is essential, but experience in various jurisdictions has shown that it is a real challenge to protect the saved revenues from being accessed at short notice at some crisis point in the future. The sheer size of EI revenues compared to a government's other revenues increases this risk of misuse or misappropriation. Additional mechanisms may therefore be required in order to account for revenue receipts and expenditures. This is particularly important when EI revenues have been accumulated and saved throughout the years for the use of future generations.

For instance, after the petroleum boom of the 1970s, the Alberta 'Heritage' Petroleum Fund in Canada had retained only about 10 per cent of petroleum revenues. The funds had been used to reduce the province's debt and to fund various good projects, but nevertheless the 'heritage' function of the fund was not entirely fulfilled. Again, around the world, there are only very few examples where funds have stood the test of time.

In fact, in many countries it has proved almost impossible to escape political demands for more spending, leading to insufficient savings for future generations. This is why it is important to have some non-discretionary rules to limit the yearly spending in order to make it easier for Ministers of Finance to escape such pressures. For example, creating a separate funding vehicle, with proper accountability and governance principles in place, can help to ensure that the revenue and disbursements are accounted for in a transparent and responsible manner. By dissociating allocation of funds from the day-to-day pressures of government budget management, and being transparent about the rationale for setting money aside, a natural resources fund can help to maintain a long-term perspective for the use of the EI revenues.

Local versus central government revenues

As discussed more fully in the next section, the most significant social, economic and environmental impacts of resource extraction tend to occur in the region where the deposits are located. During construction, for example, work seekers from across the region and beyond converge on an extraction site. The site is likely to be located in a rural area with limited public services, which can quickly become overwhelmed and the local government may lack the capacity or resources to respond effectively.

Because of these challenges, and because revenues (which might be used to mitigate negative impacts and enhance positive impacts) are usually paid to central governments, some have argued for a redistribution of funds to areas affected by EI activity, as well as some kind of fiscal decentralisation.

However, it is very difficult to reach any conclusion on the experience of fiscal decentralisation and revenue-sharing arrangements in resource-rich countries. In cases where local distribution has occurred with positive results, it appears that determining success factors were the presence of effective local government agencies and unusually strong linkages that had been deliberately fostered between EI companies and other areas of the economy. In other cases, local community leaders or self-proclaimed 'representatives' have captured a large part of the local revenues. The key factor seems not to be the revenue-sharing arrangements themselves, but, as elsewhere, the quality of local institutions and local governance.

2 Regional and Local Impacts

EI activity has numerous and significant social, economic and environmental impacts on local communities throughout the project life cycle and after the closure of operations. The impacts are both positive and negative and are well documented. It is in the interests of all parties that steps are taken to avoid or mitigate the latter while maximising the former.

Some of the main potential benefits for local communities are employment, training and business opportunities. Other benefits come from the social investment programmes that EI companies typically run in the areas of health and education, as well as support for cultural activities. Potentially negative impacts which require careful oversight include: resettlement of people living on top of natural resource deposits (which should be undertaken with reference to the World Bank's resettlement policy); respect for cultural artefacts; and cultural awareness training for mine staff.

Community development programmes differ in their rigour and quality and companies can be encouraged by governments to strive for established good practice as defined by international benchmarks. Emerging good practice is to plan and undertake community development initiatives in partnership with local communities, local government agencies, NGOs and academic institutions such as technical colleges. Implementing this work in partnership reduces the risk that the company will become a surrogate government agency, as well as helping to build the capacity of local government agencies to ensure that they can provide the services directly in the long-term.

More and more legislation is designed to take into account not only direct environmental impacts but also social impacts of industrial and other commercial projects. Accordingly, the arrangements can be used to safeguard local community interests by obtaining commitments from EI companies that can be monitored and, if necessary, enforced.

The rest of this section considers in more detail the main socio-economic issues relating to EI activity.

Employment and training

EI activity can generate jobs, which in turn can raise household incomes and help lift people out of poverty. Though large-scale mechanised operations do not, generally speaking, offer direct employment to large numbers, they do offer skilled employment opportunities over relatively long periods. The relatively large numbers employed during the construction phase of projects can be high, but such work is short-lived and offers few opportunities for skills development. Often, far more significant economic opportunities emerge *indirectly* as a result of the demands for goods and services made

by the EI company. This phenomenon is discussed more fully in the 'local procurement' section that follows.

There are three other sources of jobs that may be provided by large-scale EI companies. One set of jobs is created by the expenditure of EI salaries (which tend to be higher than average) locally, stimulating demand for higher-quality goods and services. A second set of jobs can be created as a result of social investment projects undertaken by EI companies. For example if an EI company provides some of the funding to build or upgrade a local school or hospital, this will create temporary construction work as well as potentially permanent opportunities for education or health professionals. Finally, EI companies may invest in enterprise development initiatives as part of their community development programmes. Such initiatives typically involve providing start-up capital and/or skills training to community groups and fledgling enterprises in order to either establish or grow a small business.

One additional, and often significant, source of employment connected with the mining sector is artisanal and small-scale mining (ASM). The arrival of large-scale operations may, if not carefully managed, usurp local operators, threatening jobs and leading to instability and conflict. There is not space in this paper to discuss this issue in detail, however there is emerging evidence that large-scale mining and ASM *can* successfully co-exist[11], leading to better quality jobs in the ASM sector (which is typically informal and unregulated), a higher tax take for governments (due to the formalisation of the sector), and associated socio-economic development benefits.

Governments of resource-rich countries have an interest in ensuring that EI activity maximises job creation opportunities. There are a number of measures that can be taken to this end. These are widely used and ought not to come as a surprise to experienced and responsible EI companies.

Companies can be required to provide employment preference to qualified local citizens over foreigners. Hence sector policy should seek to encourage EI companies to have in place plans for the employment of local citizens. In keeping with standard practice provision can be made in the EI legislation and in the agreements signed with companies that require companies to demonstrate their plans for local employment and training when applying for natural resource rights. These plans can be developed in consultation with relevant arms of government, labour associations and community representatives. Training should be provided under an approved training programme.

A provision can also be included to require EI companies to provide an agreed level of annual funding for technical knowledge and skills transfer to government officials in EI-related disciplines. As a requirement for monitoring compliance, after operations have

11 See for example the work of the World Bank's 'Communities and Small-Scale Mining' (CASM) initiative.

commenced, there should be a regular flow of information on employment and training activities and its outcomes, with reference to agreed performance measures.

In the case of artisanal and small-scale mining, there are opportunities for employment of large numbers of nationals.

Local procurement

The number of indirect jobs created by a large company's local procurement policy can be very significant. Not all a company's needs can be met locally, for example the huge tyres required on mining haul trucks are only produced by a handful of companies operating on an international basis. Nevertheless, there is a long list of goods and services required by modern extractive companies that can in theory be supplied by the local private sector including food and drink for the staff canteen, uniforms, maintenance of vehicles, equipment and civil works, roofing, carpeting, fencing, drainage, translation, transport, security, pest control, warehousing, tooling and telecoms.

In order to respond to this demand, small companies typically require access to credit, skills and knowledge so that they can meet the environmental, technical and quality standards required by EI companies. The government can encourage EI companies to form 'business linkages' with the local private sector, whereby skills, technology, and credit can be transferred from the large entity to the smaller one. The advantage of these linkages to the EI company is that they can result in a more vibrant and competitive supplier base.

Legislation in this area might require EI companies to procure equipment, material and services from local sources whenever items can be supplied that 1) meet the required quality standards, 2) are available at the time required and 3) are offered at prices that are competitive at the point of delivery. There may also be a provision requiring companies to facilitate the participation of local suppliers in the EI supply chain by making requirements known from an early stage and providing guidance to potential suppliers on meeting the requirements. This objective should be incorporated as part of a business development programme that is broad enough to include more specialised goods and services. Such plans should be developed in consultation with relevant arms of government, business associations and community representatives. Once operations have commenced there should be a regular flow of information on procurement that has taken place and its outcomes, with reference to agreed performance measures.

Another form of government input that can help stimulate employment might be the establishment of a cluster of EI companies and their suppliers to build the capacity of the smaller companies on a collective basis. This 'cluster' approach can be a cost-effective intervention as it firstly enables EI companies to indicate to local suppliers the quality standards required in order to access the extractive sector supply chain. Secondly it allows training and capacity programmes to be conducted on a collective basis, which is more cost-effective than working with lots of suppliers individually. Such

cluster programmes have been successfully established in several countries including Chile, South Africa and Mozambique[12].

Refining, processing and consuming extractive products domestically

An overwhelming percentage of the products of EI activity are exported for processing, refining and consumption. As a result, some resource-rich countries seek further value addition opportunities in-country. However capitalising on these opportunities is not straightforward. The extractive sector produces highly standardised products, which implies very significant capital investment and training for internationally-oriented processing facilities. While there are advantages to having further processing and manufacturing activities occurring close to the extraction point, such as increased employment, skills development, backward and forward linkages and income generation, it may also make economic and logistical sense to perform further processing closer to markets. A case by case decision may be necessary.

There is scope in some countries to take advantage of downstream opportunities. The opportunities differ according to the product involved. For example the economics of minerals value addition will dictate whether or not a mining company is willing to invest in further treatment and processing of mined minerals at the mine site or within the borders of the host country. Key factors in this context include economies of scale, transportation costs, and the opportunities to take advantage of competitively priced inputs such as electricity. These factors tend to be site- and mineral-specific, so it is impossible to generalise across minerals. However one example from the diamond industry is as follows: before the fall in diamond demand in 2008, the government of Botswana had entered into an agreement with De Beers to construct an US$80 million diamond processing plant in Botswana with the potential to create about 3,000 jobs and become the primary processing centre for De Beers diamonds mined in Botswana.

In the case of natural gas, the Tanzania case study on page 28 shows how locally-produced gas is being used to produce electricity in-country. This approach can bring a wide range of socio-economic development benefits including increased access to energy for the region, a more attractive foreign investment destination, and even scope to export surplus power. The Tanzania example could be of particular interest for other gas-exporting regions where electricity supply is sporadic.

In the case of petroleum, a refining facility is necessary in order to add further value to the product. There are several factors that render local refining uneconomical. Refining activities are extremely capital-intensive and subject to important economies of scale. Over the past twenty years the refining industry has been extensively

12 UNECA and UNIDO are both undertaking ongoing work on clusters and linkages. See also the work of Antofagasta mining cluster.

rationalised internationally, with the closure of most mid-scale refineries, along with the consolidation of production into large-scale refineries operating at 95 per cent capacity and above. Since a fully-fledged refinery is very expensive to build, it is difficult for a local refinery to be competitive unless very specific conditions exist.

There is scope, however, for the government to remove factors that could act as barriers to investment in value addition projects and, if considered economically justified (e.g. by creating jobs) and fiscally prudent, to offer financial incentives. This might include, for example, removal of certain tariffs and taxes, and infrastructure provision (see next section).

Fiscal concessions offered to add value to EI products in-country should not be allowed to erode the extractive sector tax base. If companies set up value addition operations to take advantage of different and lower taxes from those that apply to EI operations, the government must be vigilant in preventing companies from engaging in transfer pricing that would shift profits from the more taxed entity to the less taxed processing entity. In this regard, it is important that there is clear 'ring fencing' between an extraction business and a value addition (processing, refining etc.) business.

CASE STUDY 3: Transforming the life of the local population using gas resources in Tanzania

Extracted resources are often exported for processing, refinement and consumption. Sometimes, an EI project can positively transform the lives of the population of a producing region, by increasing energy availability, reliability and affordability. This in turn can lead to a wide range of socio-economic development benefits. Tanzania's Mnazi Bay/Mtwara Energy Project (MEP), through its integration of the entire value chain from the extraction of the gas through to electricity delivered to the customer, is a good example of this kind of project.

As in many developing countries, a small proportion (less than 20 per cent) of the population of Tanzania has access to a stable and affordable electricity supply. Approximately 85 per cent of primary energy supply is from biomass, with devastating impact on forests. The region of Mtwara is not connected to the main electricity transmission grid and therefore suffers more than most from energy poverty.

Off-shore gas with no market

The gas at Mnazi Bay was initially discovered in 1982 by AGIP, an Italian company. As years passed, the rights over the project changed hands a number of times with very little development taking place because of the same issue: there was no market for the gas. This was not a new problem. A core challenge for Tanzania's energy sector has always been access to market for commercialisation of hydrocarbon resources. The relatively small domestic market limits the volume of gas or liquids that can be absorbed locally, while the long distance to foreign markets has to date limited the possibility of exports.

From extraction to consumption

The solution was to integrate the whole value chain from gas extraction to power generation. Hence, in addition to gas extraction, the Mnazi Bay project included the construction of a gas processing facility at Msimbati Peninsula, a 25 kilometre marine-land pipeline to the harbour town of Mtwara, and gas receiving facilities at the end of the pipeline. The construction of a 12MW power station was undertaken and on 23 December 2006 Mtwara received its first electricity supply generated from natural gas. Since that time, the town of Mtwara has received stable electric power – a claim that can be made by few towns in East Africa.

The Mtwara Energy Project (MEP) marks a number of firsts for Tanzania and for East Africa. It includes the negotiation of a transmission and distribution franchise covering the administrative districts of Lindi and Mtwara, where the delivery of power supply to residential, commercial and institutional customers will also be integrated. Before this project, the region had been subject to frequent blackouts. The project therefore also included an upgrade of the regional transmission and

distribution system to link three isolated networks. In turn this means that the ageing, expensive and unreliable diesel fired generators could be closed down.

Engine for economic development
Although the region had an abundance of resources, market access potential and an underutilised labour force, the lack of a reliable and competitive electricity supply was a major impediment to the region's development. With the MEP, a major barrier to economic growth in the region was removed. The new power supply had an impact on the local infrastructure such as roads, schools and hospitals. Commercial and industrial interests are re-examining the region and re-assessing the potential of various economic activities including mining, forestry, agribusiness and manufacturing.

Local benefits
The growth in economic activity will take time to materialise. In the meantime, the daily life of the local population has already changed. Some have started to sell cold drinks, children are able to enjoy ice cream, and water authorities are able to guarantee steady water supply. Over the next 5-6 years, the plan is to have MEP connect electricity to some 46,000 householders in Lindi and Mtwara regions, improving the standard of living for citizens. With the increase in discovered domestic natural gas resources, the Government of Tanzania is giving serious consideration to establishing the country's first energy links into the broader East Africa region, setting the stage for Tanzania to become an energy exporter. Hence, with gas that nobody wanted and from a small 12MW power plant, there are now plans to construct a new power generation facility with a capacity of 300MW – produced at competitive cost, using the country's own resources.

Infrastructure development

Because of the scale and export-orientation of many EI projects, their development often entails the building of new infrastructure. A world class project will require – and often be capable of meeting some of the costs of establishing – road and rail networks connecting it with markets, ports and harbours, power generation and supply lines and water supplies. Though constructed primarily to service the needs of a specific project or region, access to such infrastructure would ordinarily be available to the public (certainly roads, harbours and major electricity transmission lines) and regulated by the government. For example, one gas company in Egypt built a water supply pipe larger than required for its own needs, with the surplus water being used to supply communities along the pipeline route.

There is potential, therefore, for EI activity to have a significant positive impact on a region's stock of infrastructure, providing a wider economic value not only in terms of

facilitating investment by other businesses (taking advantage, for example, of deepened harbours and improved road access to the interior of the country) but also in terms of facilitating movement of goods, labour and power within the country.

A company may decide not to develop a region's natural resource deposits if there is inadequate infrastructure. In these circumstances it might be in the government's interest to contribute towards the costs of building infrastructure, particularly if such infrastructure were to have wider public use and if the government had access to concessional finance from international financing institutions. The government would be entitled to charge EI companies for use of the infrastructure on an affordable cost-recovery basis. Such matters, being determined on a case-by-case basis, would need to be the subject of negotiated arrangements included in the EI agreement and other contractual undertakings.

Dispute resolution

Because of the sheer complexity of extractive sector projects, and the size and range of impacts on local communities, it is common for differences of opinion to emerge between the company and a community. Sometimes these disputes can be resolved privately; in other cases tension may escalate and independent arbitration may be necessary.[13] Where a company has commenced activity in an area with complex and long-standing historical grievances that do not even relate to the current company's actions, the resulting dispute resolution process can be very complex to administer. Once again this highlights the importance of strong, independent institutions – in particular, in this case, the presence of a well-functioning judicial system.

Employee rights and labour relations

As with any other sector of the economy, EI employment policy should seek to ensure that the development of the private sector takes place in a manner that respects the rights of employees in the workplace and the rights of other affected groups, in so far as their rights are enshrined in the laws of the country and any international obligations.

EI legislation should be harmonised with other relevant legislation and international obligations and effective monitoring and enforcement of EI company obligations should take place. The ministry responsible for the extractive sector should actively promote awareness of issues relating to employee and gender rights through dissemination of relevant information and the encouragement of initiatives that enable fruitful consultation to take place between stakeholders on these issues.

Employment issues that are particularly relevant to the extractive sector include terms of employment, working conditions, rights of employee association and collective bargaining. Legislation and regulations including those statutes regulating health and

13 Countries may want to refer to UNCITRAL rules.

safety matters need to be in line with international provisions related to employment law and health and safety regulations. There should also be competent, independent enforcement entities with the authority to apply sanctions to non-compliant EI activity, including in state-owned enterprises – again the necessary precondition of not only having proper frameworks but also appropriate institutions. Artisanal and small-scale mining, which can employ significant numbers in mining countries, often takes place on an informal or unregulated basis and in these cases an initial step would be for governments to assist with formalisation and regularisation (i.e. making it simpler for small operations to become legally constituted enterprises).

Gender

EI is typically a male-dominated sector and, in the past, has offered only limited opportunities to women. Encouraging female participation in EI requires special attention, which may include the removal of legal barriers to female employment, as well as the provision of appropriate measures, such as maternity leave, childcare, separate changing facilities etc. Furthermore, social investment programmes developed by EI companies - in partnership with governments, donors and NGOs - should pay particular attention to the impact of HIV/AIDS upon women and those households left fatherless as a result of the virus.

Post-closure community viability

Unless careful forward planning is undertaken, regions where EI activity has ended may become 'ghost towns'. The problems can be particularly acute when the operations take place in areas that had little or no economic activity prior to an EI company's arrival. In such areas, closure of EI operations can add to poverty. In addition to the loss of jobs among the local population, public goods and services that may have been provided by the EI company cease to be delivered, with particularly harmful effects on the poor and other vulnerable groups.

These problems can occur because of a lack of consensus on who takes responsibility for post-closure economic development. However, in practice responsible companies recognise that an abrupt withdrawal can bring problems for the community and this in turn can create resentment against the company. A good way to avert, or at least mitigate, such difficulties, is for planning to take place well in advance of mine closure. Such planning involves all parties including the national government, local authorities, communities and the EI company.

A robust post-closure plan should focus on creating economic diversification during the time of the EI activity so that the closure does not represent the withdrawal of the community's only lifeline. This highlights the importance of supporting enterprise development activities to ensure the creation of a competitive and self-reliant local private sector. In addition, the facilities and infrastructure from the EI activity can be re-assigned for other commercial or industrial purposes such as tourism, forestry or agriculture.

There should also be a transition plan under which the respective legal, financial and institutional responsibilities of the various parties are defined and agreed. This can help to forestall a situation where the government and/or local authorities assume responsibility before they are ready. For example, arrangements should be put in place for the orderly transfer of title relating to housing and other company-constructed buildings that have potential for post-closure usage.

3 Summary of Policy Recommendations

This paper has discussed some of the issues and challenges that governments of resource-rich countries face in ensuring that the extractive industries can transform society for the good and avoid instability and conflict. While there are some common issues at central versus local levels – the need for strong, well-functioning institutions being a prime example – the nature of the challenges are generally distinct and the government response should be tailored accordingly. Centrally, for example, governments must concentrate on maintaining macroeconomic and socio-political stability. At the local level, governments must respond to the wide range of socio-economic and environmental challenges relating to the presence of extractive activities that may be unique to the local setting, in often remote rural areas. This concluding section summarises some of the key policies that can bring long-term benefit to the country without creating significant additional burdens for the government, and which are in line with international standards and the expectations of EI companies.

i) Apply the 'frameworks-institutions-governance' concept

In many countries, adequate legal and regulatory regimes for EI activity already exist. The problem is often that there is insufficient capacity at local and regional levels to enforce the rules and laws. Ensuring that there is a sufficient number of well-trained government staff, empowered to carry out their jobs according to widely-observed principles of good governance, is therefore a critical element of ensuring that EI activity leads to positive rather than negative impacts. An internal review to find out areas where legislative and regulatory complexity exceeds implementation capacity – tax collection may be one example – can help to highlight where additional investment is necessary.

ii) Simplify the regulatory and legislative framework

An over-complex regulatory and legislative framework can hinder a country's long-term development for two reasons: there may be a lack of capacity to enforce it, and the private sector may unable to adhere to it. Simplifying the fiscal framework can make it easier for an overstretched civil service to collect tax revenues. Likewise, simplifying the regulations surrounding artisanal and small-scale mining activity, including business registration, can lead to improved working conditions as well as making it easier to enforce other areas of legislation relating to health and safety.

iii) Encourage transparency in EI activity

Overseeing EI activity is highly complex for any government, particularly one where the extractive sector constitutes the main form of economic activity. By governing EI activity – for example the basis of deals, the size of revenue flows,

the rationale behind heritage funds – on the basis of transparency rather than secrecy, a government can help to safeguard the long-term interests of the country. This is because transparency can improve public accountability and lead to strengthened governance. Publicly signalling a willingness to implement the Extractive Industries Transparency Initiative (EITI) is a useful starting point. As described in the Cook Islands case study, some governments are now enshrining the tenets of the EITI – that is, the publication by EI companies of taxes and royalties paid, and the publication by governments of EI revenues received – in national law.

iv) Ensure sound revenue management according to the five Ss

This paper sets out the constituent parts of sound revenue management policy in terms of the following 'five Ss': sterilisation, stabilisation, socio-economic development, saving for future generations, and safeguarding of the revenue. These include measures to help avoid the symptoms of Dutch disease, as discussed in the Trinidad and Tobago case study.

v) Pay special attention to social, economic and environmental impacts in regions and communities where extraction occurs

Requiring companies to adhere to international good practice in social and environmental management can help to minimise impacts on local communities surrounding EI activity. This is particularly important because these communities often face more intrusion than anywhere else in the country, for example due to resettlement, strain on local services, environmental issues such as dust, noise and waste disposal, and other social and cultural disturbances created by the arrival of a modern large-scale EI company. Particularly important is the presence of well-resourced local and regional government agencies operating according to widely-agreed principles of good governance.

vi) Emphasise the importance of upstream procurement opportunities rather than solely pursuing 'value-addition' through downstream economic linkages

Encouraging economic diversification is also critical in regions that host EI activity. Building the capacity of local companies to enable them to access the supply chains of large-scale EI companies is a sound long-term investment. Working with clusters of companies and suppliers and encouraging linkages between large firms and the local private sector are two well-established approaches. As with other areas of EI policy, the government need not always fund the cost of programmes alone, nor assume sole responsibility for implementation: there is often money available from donors and/or EI companies themselves. Downstream economic linkages should also be actively pursued once the feasibility and economic viability of the venture have been determined.

This is not an exhaustive list but at least indicates the kind of long-term solutions that are available and that are likely to find broad acceptability.[14]

In conclusion there are, undoubtedly, many past instances where EI activity has failed to deliver on its promise to society. However, there is also evidence, as well as an emerging consensus, that the extraction of natural resources can have a positive transformative effect on society.

14 The Appendix shows twelve precepts from the Natural Resource Charter, a document compiled by an independent group of internationally-respected economists, lawyers and political scientists. The full version of the charter discusses in more detail many of the issues in this paper, and is available at www.naturalresourcecharter.org

Appendix. The Natural Resource Charter

An independent group of internationally-respected economists, lawyers and political scientists has developed a set of twelve precepts that resource-rich countries can adopt in order to increase the chances that EI activity will transform society for good, rather than creating instability and conflict. The precepts cover all stages of EI activity, beginning with the decision to extract the resources and ending with decisions about using revenues ultimately generated by EI activity. In the charter, the precepts (listed below) are followed with technical detail about how they can be implemented.

1) The development of natural resources should be designed to secure the ***maximum benefit*** for the citizens of the host country.

2) Extractive resources are public assets and decisions around their exploitation should be ***transparent*** and subject to ***informed public oversight***.

3) ***Competition*** is a critical mechanism to secure value and integrity.

4) Fiscal terms must be robust to ***changing circumstances*** and ensure the country gets the full value from its resources.

5) ***National resource companies*** should be competitive and commercial operations. They should avoid conducting regulatory functions or other activities.

6) Resource projects may have serious ***environmental and social effects*** which must be accounted for and mitigated at all stages of the project cycle.

7) Resource revenues should be used primarily to promote ***sustained economic growth*** through enabling and maintaining high levels of domestic investment.

8) Effective utilisation of resource revenues requires that ***domestic expenditure be built up gradually*** and be ***smoothed*** to take account of revenue volatility.

9) Government should use resource wealth as an opportunity to secure effective public expenditure and to increase the ***efficiency of public spending.***

10) Government policy should ***facilitate private sector investments*** in response to new opportunities and structural changes associated with resource wealth.

11) The ***home governments*** of extractive companies and ***international capital centres*** should require and enforce best practice.

12) ***All extraction companies*** should follow ***best practice*** in contracting, operations and payments.

Extractive industries have real potential to transform societies for the better. However, fulfilling this potential is neither assured nor automatic.

The extraction of non-renewable natural resources (notably oil, gas and minerals) has often led to political instability, revenue management challenges, corruption and increased social tension. It is therefore necessary for resource-rich countries to improve legislative and regulatory frameworks, build institutional capacity and strengthen governance, in order to ensure that the natural resource blessing does not become a curse.

Illustrated by case studies of good practice from across the Commonwealth, this book will help government decision-makers ensure that the extractive industries transform society for the better, while also minimising the risk of instability and conflict.

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