Mozambique Support Program for Economic Enterprise Development

How USAID can Assist Mozambique to Cope with the Impending Resource Boom

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Abbreviations and Acronyms

AAAJC	Associação de Apoio e Assistência Jurídica às Comunidades
ACIS	Associação de Comércio e Industria
AMA	Associação do Meio Ambiente
ANGOL	Angolan subsidiary of Portugal's SACOR
ARV	Anti-retroviral
ASA	Associação para Sanidade Ambiental
AusAID	Australian Agency for International Development
BBC	British Broadcasting Corporation
BCI	Banco de Comércio e Indústria
CBO	Community based organization
CDN	Northern Development Corridor
CFM	Caminhos de Ferro de Moçambique
CIDA	Canadian International Development Agency
CIP	Centro de Integridade Pública (Center for Public Integrity)
CLIN	Integrated Northern Logistics Corridor
CNCS	Conselho Nacional de Combate ao HIV/SIDA
COrE	Center for Entrepreneurial Orientation
CSO	Civil society organization
CSR	Corporate social responsibility
CSWs	Commercial sex workers
CTV	Centro Terra Viva
DCAT	Direcção de Coordenação e Apoio Técnico, Autoridade Tributária de Moçambique
DNGC	Direcção Nacional de Geografia e Cadastro
DNM	Direcção Nacional de Minas
DNTF	Direcção Nacional de Terras e Florestas
DP Mines	Provincial Director of Energy, Natural Resources and Mines
DPA	Provincial Director of Agriculture
DUAT	Direito de Uso e Aproveitamento da Terra (Right to Use and Benefit from Land)
EFCC	Economic and Financial Crimes Commission
EIA	Environmental impact assessment
EITI	Extractive Industries Transparency Initiative
ENH	National Hydrocarbon Company
FAAC	Federal Account Allocation Committee
FERMA	Federal Road Maintenance Agency
FSDEA	Fundo Soberano de Angola
GC	Global Compact
GDP	Gross Domestic Product
GoB	Government of Botswana
GoM	Government of Mozambique
GoN	Government of Nigeria
GoPNG	Government of Papua New Guinea
GTZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German International Development Agency
HAPs	Specific health action plans
HCB	Hidroeléctrica de Cahora-Bassa
HDI	Human Development Index
HEST	Higher Education Science and Technology Project for Mozambique
HIA	Health impact assessment
HIV	Human immunodeficiency virus
HMIS	Health management information systems
HR	Human resources
HTM	HIV & AIDS, tuberculosis and malaria
IESE	Instituto de Estudos Sociais e Económicos
IFI	International financial institution

IGEPE	Instituto de Gestão das Participações do Estado
IIM	National Malaria Indicator Survey
ILO	International Labor Organization
IMF	International Monetary Fund
INE	Instituto Nacional de Estatistica (National Statistical Institute)
INP	Instituto Nacional de Petróleo
INSIDA	Inquérito Nacional de Prevalência, Riscos Comportamentais e Informação sobre o HIV e SIDA
IOM	International Organization for Migration
IPA	Investment Promotion Authority
IPEME	Promotion of Small and Medium Enterprises
ISO	International Organization for Standardization
IT	Information technology
JPSL	Jindal Steel and Power Limited
KMAD	Kenmare Moma Development Association
LDH	Mozambican Human Rights League
LEITI	Liberia Extractive Industries Transparency Initiative
LNG	Liquefied natural gas
M&E	Monitoring and evaluation
MCP	Multiple concurrent sexual partners
MDR	Multidrug-resistant
mgj	Million gigajoules
MICOA	Ministério de Coordenação Ambiental
MINPLAN	Ministry of Planning
MIREM	Ministry of Natural Resources and Mining
MISAU	Ministério de Saúde
MMAS	Ministério da Mulher e Coordenação da Acção Social
MOH	Ministry of Health
MOZAL	Mozal Mozambique, Lda.
MRDC	Mineral Resources Development Company
NDPI	National Directorate of Public Investment
NEITI	Nigerian Extractive Industries Transparency Initiative
NFA	Net Foreign Assets
NGO	Non-governmental organization
NNPC	Nigerian National Petroleum Corporation
NORAD	Norwegian Agency for Development assistance
NRC	Nigeria Railway Corporation
OECD	Organization for Economic Co-operation and Development
OGE	Orçamento Geral do Estado (General State Budget)
OMR	Observatório sobre o Meio Rural
OPEC	Organization of Petroleum Exporting Countries
PACI	Partnering Against Corruption Initiative
PARPA	Absolute Poverty Reduction Action Plan
PARPA II	Absolute Poverty Reduction Action Plan II
PDA	Porgera Development Authority
PEN III	Plano Estratégico Nacional de Resposta ao HIV e SIDA: 2010 – 2014
PHAMESA	Partnership on Health and Mobility in East and Southern Africa
PHCN	Power Holding Company of Nigeria
PIH	Permanent Income Hypothesis
PIMI	Public Investment Management Index
PIP	Public investment program
PLoA	Porgera Land Owners Association
PNCT	National Program to Control Tuberculosis
PNG	Papua New Guinea
PPP	Public-private partnerships
PWYP	Publish What You Pay
RWI	Revenue Watch Institute

SIA	Social impacts assessment
SME	Small and medium enterprises
Sonangol	Grupo Sonangol
STD	Sexually Transmitted Disease
SWF	Sovereign wealth fund
TB	Tuberculosis
USAID	United States Agency for International Development
U.S.EIA	United States Energy Information Agency
U.S.NOAA	United States National Oceanic and Atmospheric Administration
UGC	União Geral das Cooperativas
UNAIDS	United Nations AIDS Program
UNCTAD	United Nations Conference on Trade and
UNDP	United Nations Development Program
UNGC	United Nations Global Compact
UNICEF	United Nations Children's Fund
UNITA	National Union for the Total Independence of Angola
UNODC	United Nations Office on Drugs and Crime
USAID	United States Agency for International Development
VDPA	Vienna Declaration and Program of Action
VMMC	Voluntary medical male circumcision
WB	The World Bank
WHO	World Health Organization

Executive Summary

Mozambique is rapidly evolving into a resource-rich economy. Transforming the expected wealth into economic growth and social well-being is the challenge ahead. Absorbing the wealth as it flows into the economy will challenge Mozambique's weak institutional capacities, posing a risk that the country could become another victim of the "resource curse." Decisions made today will determine whether Mozambique heads down the path of corruption, Dutch disease, adverse health and environmental impact, and weak economic linkages, or whether the country surfaces as a worldwide success story.

This paper analyses some key issues and recommends that USAID engages with the government and civil society to transform natural resource investments and receipts into wealth creation for the Mozambican people.

Scope dimensions of the extractive industry. By any measure, Mozambique's recent discoveries in coal and natural gas represent significant opportunities for revenue generation. Although the timing and exact magnitude of these receipts are heavily debated in the country, it seems clear that 10 – 15 years from now, the government will begin to see significant revenues, especially from the planned liquefied natural gas (LNG) plants. One of the key concerns, however, is whether the tax regime and individual contracts will result in fair compensation for the country's resources. It will be important for all stakeholders to carefully track the new mining and petroleum laws to ensure that these contain guidelines for receipts that both incentivize the companies and compensate the country. Another concern is whether expectations about the timing of receipts are being properly managed.

The roles of government and civil society. The government faces immense challenges in absorbing the impending revenues. In reality, most developing countries are unable to fully take advantage of their resource boom due to six factors: 1) Dutch disease, 2) insufficient economic diversification, 3) rent seeking and conflicts, 4) corruption and undermined political institutions, 5) over-confidence and loose economic policies, and 6) debt overhang. Examples from Botswana, Angola, Nigeria and Papua New Guinea provide valuable lessons learned. Interestingly, in Botswana – one of the more successful cases – donors played an important role in helping the country cope with the boom.

Civil society organizations (CSOs) are also quite weak. With the exception of IESE and CIP, most CSOs have been slow to respond to the issues raised by extractive industry. None have become real watchdogs for the sector, and the best organizations are concentrated in Maputo. Of note, the Publish What You Pay coalition pushed for transparency on the extractive industries but seems to have lost steam over the last few years. Human resource constraints compound the problem.

This report recommends that USAID consider building civil society's capabilities for analysis, advocacy and communication by training key activists, funding the Civil Society Platform on Natural Resource and Extractive Industries, allocating financial and technical support to the media, translating into local languages all legal documents pertinent to the extractive industries, funding a training session for ten journalists committed to covering and investigating the extractive industries, and supporting individual CSOs to conduct advocacy work, organize innovative and wide-scale public awareness campaigns, and monitor the budget and track fiscal transfers to provinces and communities. The latter work would also entail analyzing the tax regime to spot loopholes for tax evasion and capital flight. Further, the report recommends supporting human resource planning initiatives with the Ministry of Education and other actors to create the needed skillsets that enable more professionals, especially women, to enter professions of relevance to the extractive sectors.

Transparency. Well-negotiated contracts can yield significant government receipts in the extractive sectors, but these contracts are not often in the public domain. Internationally, several initiatives have emerged to argue for more transparency in the oil and mining sectors, most notably the Extractive Industries Transparency Initiative (EITI), launched in September 2002. The purpose of increased transparency is to hold government and extractive industries companies accountable for the flows of funds being transferred, as well as their use. Mozambique was declared "compliant" with EITI in October 2012, which is an important and positive milestone. However, many stakeholders believe that EITI does not go far enough in enforcing accountability because it only verifies that the money sent by the extractive industries equals the amounts received by government. It does not question whether those amounts are appropriate, or their ultimate purpose.

This report recommends that USAID could contribute to broadening the scope of EITI coverage by contributing to a common fund after negotiating and receiving guarantees that the OGE (annual state budget) would cover EITI costs with a clear mandate to go beyond the basic standards; fund the Budget National Directorate to publish In-Year-Reports documenting (i) all payments (including those channeled to entities like the National Petroleum Institute) from the extractive companies and (ii) sub-national funds allocated to and spent in the provinces; and finance the publication of MIREM's database, via the Internet, for license requests and approvals.

In addition, the report suggests that USAID create a relatively long-term capacity-building program to ensure creation of technical capacity and bring many CSOs to include EITI on their agendas to create wide-scale public awareness and avid discussion about EITI throughout the country but especially in the provinces with the most extractive industries.

Resettlement and other potential conflicts. Conflicts between extractive industries and local communities are common, mainly because the local communities bear the brunt of health and environmental impacts, the operations are not "footloose" (they must locate where the resources are found), and they are highly capital intensive, creating very few jobs and staying for long periods to recoup the investment. Resettlement is the most high-profile issue that often results in conflict. In Mozambique, the process for resettlement is fairly well described in the land law, but execution is not always successful – to the detriment of local communities. Often, local elites benefit the most and uncoordinated efforts result in multiple land rights provided for multiple players, and a sense of unfair treatment of communities. Specific problems plaguing previous Mozambican resettlements include a lack of dialogue between companies, communities and state representatives, bribery of traditional leaders, unfulfilled and unrealistic promises made to relocated people, and threats and criminalization of those who raise questions about resettlement, land-grabbing, and / or lack of job creation. The GoM can do much to learn from these experiences and more closely monitor performance of future resettlement efforts.

The report recommends that, to help avert or mitigate conflicts, USAID could support civil society and community organizations that work with the extractive sector and the affected communities to focus more on understanding, monitoring and advising CSR projects and activities; and fund a mobile, fast-reaction legal team for the defense of community rights, especially during and after negotiations with mining companies.

Social and health impacts. Large scale natural resource extraction projects trigger massive population movements of people looking for jobs and opportunities. Tete, Cabo Delgado, Nampula and Inhambane are all experiencing mass migrations. This migration causes rapid urbanization, increases the cost of living, puts pressure on basic services like water and sanitation, and facilitates prostitution. In some cases, the migration can be temporary; for instance, the planned two-train LNG facility in Palma could have around 10,000 workers during its construction, but only 300 – 500 workers when construction is complete.

The health impacts of this migration can be considerably negative, often affecting the most vulnerable segments of society (women and children living in close proximity and/ or left behind by migrating spouses). Despite the significant health implications, very few extractive industry projects in Mozambique have carried out health impact assessments (HIAs), health action plans, or health baselines of any kind. This report focuses on HIV / AIDS, tuberculosis, and malaria, and finds evidence that all of these are likely to increase. It is well known that migration contributes to HIV/AIDS (and other STDs) in Mozambique and across Africa. A similar pattern is true for TB. Malaria incidence follows population concentration, so higher population densities from migration would like exacerbate what is already a prevalent health problem. Meanwhile, Mozambique's weak healthcare facilities and inadequate capacity for disease prevention is already strained. Although the highly paid expatriates attracted by the extractive industry have spurred private clinics, these are also siphoning off doctors from the affordable public hospitals. The companies themselves can play a role, and must abide by labor laws, but do not seem to be doing much yet.

This report recommends that USAID could fund an HTM Best Practices Initiative; support the development, implementation and monitoring of a Health Action Plan in three provinces; finance a National Health Impact Assessment and, its corollary, a Population Migration Dynamics Projection; provide technical assistance to develop key health indicators to measure the extractive industries' impact over time; support the integration of health issues and measures into governance mechanisms used for EI activities; and support development and implementation of an EI action plan for the prevention of gender-based violence and the care and treatment of the victims in three EI provinces.

About the Authors

Note: Team members have a responsibility to maintain independence so that opinions, conclusions, judgments and recommendations will be impartial and will be viewed as impartial by third parties.

Dr. Peter Coughlin (Ph.D., 1975) is an industrial, agro-industrial and development economist, and HIV/AIDS program evaluator. With 33 years of experience in sub-Saharan Africa, he has designed, conducted and supervised numerous research projects and published three books about industrialization strategy and others about labor economics, negotiations management, oral literature, and writing skills. For nearly two decades, he was an academic in Kenya and Mozambique teaching courses in economic development policy, economic development strategies, economic planning, industrial economics, and research methods in addition to supervising research including more than 30 approved theses by masters and *licenciatura* candidates. Most recently, he has evaluated both private and governmental efforts to combat HIV/AIDS, conducted field surveys of small farmer in five provinces in order to assess the impact of national agricultural policies and institutions, evaluated improved bio-mass stove programs, created baseline and endline studies for rural electrification, and evaluated Mozambique's Provincial Centers for Digital Resources in five provinces.

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Dionísio Nombora is a Mozambican researcher and holds a M.Sc. in *Public Sector Management* and a BA in Political Science. He held a Revenue Watch Institute Fellow from 2009 to 2010 and between 2010 and 2012 he worked as a Researcher at the Center for Public Integrity and represented Civil Society in the EITI Steering Committee. During 2012 he was also a *Publish What You Pay* Activist in Mozambique.

Peter Bechtel (MSc, Biodiversity Conservation and Management, University of London External Studies Programme, 2009) has over 30 years of experience in the fields of Natural Resource Management, conservation, biodiversity and tourism. He has worked for over 15 years with the World Wildlife Fund (WWF) throughout Africa on projects drafting legislation and advising government entities on resource security and protection. For example, currently he is working with a consortium of NGOs and multi and bi-lateral agencies to establish mangrove carbon sequestration programs for coastal Mozambique. He has also designed a carbon neutral, energy neutral housing development in Northern Mozambique.

While working for the WWF, he served as the organization's Regional Coordinator in Northern Mozambique. In this position, he developed strategic planning and implementation of natural resource management, sustainable development, and biodiversity conservation programs in the four northern provinces of Mozambique. In partnership with the Mozambique government, he founded the Quirimbas National Park in Cabo Delgado Province. The foundation of this park included the development of justification documents, management and business plans, and legislation. He worked with the National Directorate of Conservation Areas, to establish sustainable management systems and policies, to hire and train ranger forces, Mr. Bechtel served as advisor to the park administrator.

Ruth Mkhwanazi-Bechtel is an experienced program designer, manager and team leader with strong co-coordinating skills. Experienced in community development and in management of complex projects across different sectors, as well as institutional and organizational development, capacity building and training, local development, fundraising, budget management, policy development, monitoring and evaluation with a strong focus on gender.

Mrs. Bechtel led the design and implementation of the Community Care and Support program funded by Vanderbilt University/Friends in Global Health's (VU/FGH) HIV&AIDS CDC. She managed a staff of 300, focused on increasing the capacity of PLHIV to actively participate and lead community efforts to improve HIV&AIDS health care, including community-led HBC and OVC care. She also developed and managed the implementation of an integrated TB/HIV program that involved working with community leadership and volunteers to improve community education, patient identification and testing, clinical referrals and follow-up care and support. She has also worked with farmer associations, supported their capacity development and their efforts to increase their agricultural production and improve their access to markets including participation in the value chain. Efforts for increasing access to markets included advocacy for improved cross-border trading.

I. Introduction

After the end of a terrible civil war (1975-1992) in which up to a million combatants and civilians died, Mozambique was in many ways the prototypical destination for international aid agencies: a least developed country of mainly subsistence agriculture without industry or resource development; recovering from war and no longer receiving Soviet aid; possessing very low human-capacity levels; and having a government that generally welcomed aid. Foreign governments, particularly from Western Europe, and international financial institutions were critical to the country's finance. Between 1993 and 2010, total external grants (including from NGOs and IFIs) averaged 21.7% of GDP, reflecting large grants but also Mozambique's small GDP.

International aid does not merely help to sustain minimum basic consumption levels in a country but helps it grow so that, in the long run, living standards improve and enable foreign aid to be reduced. How exactly least developed countries enter onto a sustainable economic growth path is the subject of much research, but one way a country can immediately obtain substantial, if not always sustainable, economic growth is to have a natural resources boom, a boom like Mozambique is just beginning to experience.

This is a function not just of geology, but also of technology, the global economy (in particularly, commodity prices), and the political and fiscal environment in Mozambique.

In terms of geology, enormous coal and natural gas reserves have been discovered onshore and offshore (respectively). The gas reserves are economically viable in a way that they were not 20 years ago, or perhaps even 10 years ago, because of the new technologies that now allow very deep water drilling and the liquefaction of gas on a large scale for export onto the high seas. This comes as coal and natural gas prices are such that not only is their extraction viable, but extremely profitable. And, it is the government of Mozambique that stands to gain the largest share of the profits of the coal and natural gas industries, with the very large revenue flows starting about a decade from now. Mozambique's economy could, in the words of a very large foreign energy company, "quintuple in size in less than two decades." And, the major beneficiary, in financial terms, will be the Government of Mozambique.

Yet, as the experience of some countries shows, such resource booms have often not led to sustainable growth. The government's revenues can be wasted or stolen or simply not well invested or managed. Or, a very small number of well-connected people can take most of the benefit. Besides controlling corruption, the management of the sector is also important for employment, linkages, health, the environment, etc. The mega-projects, their ancillary industries and the collateral industrial and service industries are further hampered by poor infrastructure, inadequate inter-ministerial coordination, insufficient promotion, mentoring and financing of small and medium enterprises, some resistance by the mining companies against buying local inputs, impediments to the proactive use of new railways to promote agriculture and agro-industries, slowness in the development of upstream linkages, and the failure by the contracts with the mining companies to obtain guarantees about investments in beneficiation and/or local pricing of outputs so as to stimulate local downstream industries adding value to the mines' output and, hence, promote the country's deepening industrialization rather than merely becoming a huge exporter of raw materials. In short, a natural resources boom in a least developed country presents enormous capacity challenges.

This is the environment in which aid agencies such as USAID find themselves in 2013. Mozambique is still very poor and with enormous needs and low capacity. Yet, the country must prepare to manage and take advantage of the investments already entering the country as well as the large revenue streams further into the future, revenue streams that, in part, will both cause and offset declines in future aid flows. There is still a need for aid, but aid will need to focus not only on general economic development but preparation for a resources boom. This report looks at this situation in detail: what is occurring in Mozambique principally, but also some comparison to other countries for reference.

The mainstay of this report, however, is not so much an examination of the extractive industries themselves as an examination of the Mozambican government's and society's ability to handle the impacts of these industries and where capacity growth is most urgently needed. In this regard, this investigation looks at three principal areas. The first area is about maximizing the receipts that reach legitimate government coffers. This includes the Extractive Industries Transparency Initiative, which ensures that company and government payments match. It is a donor-supported activity, and one that can be even more effective by going beyond the initiative's most basic outlines. Civil society too has a role in this, as a kind of watchdog for the industry, the government, and by linking to groups not directly connected to either of the previous two. Mozambican civil society is weak, and here too there is the potential for donors to contribute to improving Mozambique's chances to have a beneficial experience from new extractive industries. Potential conflicts from investments in the sector, particularly when these industries have powerful negative impacts on local communities, are also important, need to be well understood, and are another potential destination for donor involvement.

Besides the local impact of industry investment on communities, Mozambique will have to deal with the challenges of macroeconomic management, and attempt to create linkages between these extractive investments and the general industrial development of the country. Ways to increase collateral benefits from the projects are important, and again donors can have a role in helping to build up these connections.

In particular, extractive industry investments can have such major health effects on a country that the benefits of such investments are significantly offset. This report examines *(i)* the likely impact of the sector on health in Mozambique and *(ii)* what the government and individual companies are doing to deal with extractive industries' project-related health issues. On disease and healthcare issues, donor agencies can contribute much. Health is a possible area for corporate social responsibility programs. Examining this, the report looks at best practices and how a donor agency could help to support such practices.

Finally, in about a decade, when huge revenues begin to flow, the government of Mozambique will have to determine how to spend and save in the future. What is done to assist the government in this regard can have real long-term benefits for Mozambicans, especially women and youths.

The authors of this study have outlined potential programs that USAID (or other donors) could support to help Mozambique succeed by minimizing corruption, strengthening and focusing education and technical training, building infrastructure, protecting the environment, improving health care, and warding off the threats of worsening epidemics.

II. Scope and Dimensions of the Extractive Industry

A. Geography and Timing of Investment and Production

Mozambique is on the cusp of a boom of mega-investments in coal, minerals and natural gas. With Vale and Rio Tinto producing, and others constructing their facilities, the coal projects are well on the way: some to export coking coal, others to run thermal power stations that would utilize less valuable low-quality coal. The Vale (Moatize) project has invested US$ 1.320 million so far, can produce 26 million tons of coal per year and, in 2011, started exploitation and exports. The Rio Tinto project (Benga) has invested US$ 850 million, can produce 20 million tons of coal per year, and started production in early 2012. At present, the Sena line is the only railway able to ship to a port (Beira).[1] Nevertheless, "with the construction of the additional Nacala rail line, coal production is expected to increase by 30% per annum on average over the medium term. Under current *World Economic Outlook* ['s] price assumptions, coal mining is projected to account for 6% of GDP by 2017" (IMF 2013:9). As yet, no concrete plans exist to set up a local coking plant (Table 1). Assuming that, by 2020, Sasol increases its production of natural gas by 50% and Vale and Rio Tinto reach full capacity, the share of mega-projects will rise from the

> current 8-10% to 18-20 % [of GDP] by about 2016 to 2020. Adding to this estimate the new Anadarko and ENI gas discoveries would increase the share of mega-projects in GDP to around 40-50% (assuming the value of the discoveries to be about $400 billion over four decades, exports of $10 billion per year, extraction companies take 50% share, Mozambique's revenues would be roughly $5 billion, gas-related mega-projects would then add another 20% to IMF projected GDP in year 2020) (Biggs 2012: i).

With more than 100 billion tons of coal reserves, 70% of which is high-value coking coal, and "growing demand projected for Asian steel manufacturers, particularly India", Mozambique has the "potential to provide 20% of the world's sea-borne coking coal by 2025" (Hubert 2012:3 summarizing data from Merrill Lynch Research 2011). With both reserves and demand guaranteed,

> the barrier to expansion is rail and port capacity. There are currently two rail options—the Beira corridor and the Nacala Corridor. The Sena line to Beira is the most direct route, but the port is unable to accommodate the larger more cost-effective ships. Mozambique rail authorities estimate that improvements on the line will allow 6.5 million tons per annum (mtpa) in 2012 and as much as 20 mtpa by 2017. Upgrades worth more than $4 billion are currently underway to the rail line running through Malawi to Nacala with a projected capacity…. [Nevertheless,] given transportation limitations, it is difficult to see how exports could exceed 50-60 mtpa before late in the decade (Hubert 2012:4).

According to projections for 2020, Mozambique will produce more than 50 mtpa of coal. Various proposals also exist to build coal-fired power stations, although "none are likely to be operational until at least 2017…. [Moreover], exports of significantly more than 50 mtpa … will require the development of a third route" (Hubert 2012:4).

In the natural gas sector, the country has so far held five hydrocarbon bidding rounds, with the biggest occurring six years ago for the Rovuma concessions. The first production and exportation was on natural gas in February 2004 by Sasol, with capacity of 120 MGJ/year (million gigajoules per year) and in 2011 the capacity has gone up to 147 MGJ/year. In the Rovuma Basin, the American petroleum company, Anadarko, and the Italian ENI have already discovered around 150 trillion cubic feet of gas[2] and are looking for more. That "could bring Mozambique revenues of as much as $400 b to $500 b over the next several decades, a huge windfall for a country whose exports are expected to be about $4 b this year" (Biggs 2012:15). Though delays are possible, Anadarko's liquefied natural gas plant is scheduled to have its first train operational by 2018.[3] And,

[1] "Nacala line could add 11 million tons to coal shipping capacity by mid-2016, and is expected to reach full capacity of 18 million tons by 2017" (IMF 2013:10).

[2] The proven reserves are likely to be smaller.

[3] Interview with representative, President, Anadarko Moçambique Área 1 Lda., 25/1/2013

in 2012, Sasol/ENH's expansion of 183 MGJ/year became operational (Table 1). Moreover, exploration continues in other tracts.

In 2013, Mozambique will grant more natural gas concessions off its northern coast, and there is a big interest in exploration from all the major players, i.e., Exxon Mobil Corp, Royal Dutch Shell PLC, BP PLC and Chevron Corp. According to estimates by Dow Jones (2012), even with the current discoveries—mostly in concessions managed by U.S.-based Anadarko Petroleum Corp. and Italy's ENI—Mozambique could become one of the world's top liquefied natural gas exporters after Qatar and Australia. The above estimates are barely half of what might eventually be extracted.

Mozambique also has many minerals, including significant gold,[4] iron, titanium,[5] limestone, gemstones, phosphate and nepheline syenite[6] reserves (Callaghan 2012:25).[7] It also has extensive reserves of heavy mineral sands. Kenmare's mineral sands project, which started in 2007, is now the biggest project. "Current production of ilmenite is 750,000 tons, with projections for an increase to 1.2 million tons. Revenue in 2011 was $167 million, up from $92 million in 2010" (Hubert 2012:6). With an investment of USD 660 million, it produces and exports 1.2 m t/year of ilmenite, 56.000 t/year of zircon, 21.000 t/year of rutile. The company is currently increasing its capacity and extending its mining area. While Kenmare would like to expand at a faster rate, the company is hesitating due to persistent problems with the quantity and quality of its electricity supply.[8]

Although many other potential projects exist, diverse supply or demand problems have stymied their progress. For example, though "Chibuto … is the world's largest deposit of titanium-bearing sand, … development would require more than $500 m for the mine, smelter and transportation facilities." With the titanium market in oversupply, it has been difficult to get international companies to commit and execute the required investment (Callaghan 2011:103).

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[4] supporting roughly 100,000 artisanal miners

[5] "Chibuto … is the world's largest deposit of titanium-bearing sand [though] development would require more than $500 M for the mine, smelter and transportation facilities." With the titanium market in oversupply, it has been difficult to get international companies to commit and executive the required investment (Callaghan 2011:103).

[6] for cement

[7] "In 2004, the Nordic Development Fund, together with the World Bank and the African Development Bank, agreed to finance the geological mapping of Mozambique. Contracts were awarded and work started. Unfortunately the information resulting from this is not readily available" (Callaghan 2011:25).

[8] Interview with Gareth Clifford, CEO, Kenmare, 14/12/12.

Table 1. Investment and production plans by extractive industries

	Project and location	Sector	Companies	Investment	Capacity, reserves or Transmission	Production starts (year)
Current Projects						
1	**Mozal** (Maputo)(includes Mozal II; Mozal III being planned)	Aluminum	BHP Billiton (47.1%); Mitsubishi (25%); Industrial Development Corp. of S. Africa (24%); IGEPE (3.9%)	\$1.1 b \$665 m (Phase II)	245,000 tons per year 245,000 tons per year (II)	2000 2003
2	**Moatize Mine - Tete**	Coal (thermal & coking) + coal terminal & railway	Vale 85%; state share 15%, with two-thirds of state share to be sold to Mozambican citizens	\$2.0 b so far; Expansion plans additional \$6.4 b	Current capacity 11 m tons/year (aim to increase capacity to 22 m tons/year by 2014)	2011
3	**Benga & Zambeze Mines - Moatize, Tete**	Coal (thermal & coking); Sena railway	Rio Tinto (65%); Tata Steel (35%) on Benga, Rio Tinto (100% Zambeze)	\$1.0 b total capacity, Benga 10 m tons/year; Adjacent Zambezi 25 m/year, Tete East 10 m/year - \$3.5 b acquisition by Riverdale	Eventual capacity of 20 m tons /year	2012
4	**Chirodzi Mine – Changara, Tete**	Coal export & 2640 MW coal-fired power plant	Jindal Steel and Power Limited (JPSL)	(N/A)	10 m tons per year capacity; 5.6 m tons planned for 2013/1.2 b tons reserves	2013-16 ramp up; date of power plant uncertain
5	**Benga Power Project – Tete**[1]	Coal/electricity	Riversdale (now acquired by Rio Tinto) (65%); Tata Steel (35%)	\$1 b	Coal reserves 4 b tons/Phase I: 500 to 600 MW; Phase II 2000 MW	2013-2014 for Phase I/exports of coal uncertain

	Project and location	Sector	Companies	Investment	Capacity, reserves or Transmission	Production starts (year)
						until new transport options exist
6	**Ncondezi Coal Power - Tete**	Coal/electricity	Ncondezi	\$500 m - \$600 m	300 MW	2017
7	**CESUL Transmission Project** to connect Tete province with provinces south to Maputo	Electricity	Electricidade de Moçambique	\$1.66 b	Phase I 3100 MW (via 400 kv and 800 kv overhead transmission lines anchored to Cahora Bassa and Phanda Nkuwa Dams)	Start date 2012; completion expected in 2015.
8	**Hidroelectrica – Cahora Bassa Dam**	Electricity	Hidroelectrica de Cahora Bassa (GoM)	\$515 m	5 x 415-MW turbines	1975; transfer to Mozambique 2007
9	**Mphanda Nkuwa Hydroelectric Dam - Zambezi**	Electricity	Camargo Corrêa	\$2 b (Phase I) \$500 m (Phase II)	Phase I 1500 MW Phase II 1000 MW	2015 (Phase I)
10	**Wartsila Natural Gas Plant - Temane**	Electricity from natural gas	Wartsila: agreement with Sasol & Electricidade de Moçambique	\$180.5 m	140 MW	2014
11	**Moma Mine - Nampula**	Heavy sands*	Kenmare Resources	\$460 m	864,000 tons per year, ramping up to 1.3 m	2007; expansion ongoing
12	**Mozambique LNG plant – Palma, Cabo**	LNG	Cooperative agreement between offshore consortia	Whole project investment by all companies could be \$50 b including offshore; one estimate	5 m tons of LNG/y to start; expandable to 50 potentially	2018

	Project and location	Sector	Companies	Investment	Capacity, reserves or Transmission	Production starts (year)
	Delgado			of Cabo Delgado plant was $10 b		
13	**Anadarko Offshore Area 1**	Natural gas	Anadarko (36.5%, operator)[2] Mitsui (20%); Bharat Petroleum (10%); Videocon (10%); PTT (8.5%); ENH (15%)	See #12	Approx. 100 tcf in place	Exploration started in 2006
14	**Eni Offshore Area 4**	Natural gas	Eni (70%, operator);[3] KOGAS (10%); Galp Energia (10%); ENH (10%)	See #12	1,748 Bcm/62 tcf of gas in place	Exploration started in 2006
15	**Sasol/ENH 50% Expansion – Temane**	Natural gas	Sasol (70%); ENH and subsidiaries (30%)	$2.1 b; Expansion: $220 m	120 MGJ/Y; 183 MGJ/Y, plus condensates	2004; 2012
Future Projects Under Consideration						
1	**CESUL Transmission Project**	Electricity	Electricidade de Moçambique		Phase II 6000 MW anchored to coal-fired power plants Vale/Rio Tinto	(Phase 2 depends on Vale/Rio Tinto power plant investment)
2	**Corridor Sands**	Heavy Sands	Chibuto, Gaza Province	$1 b to $2b	Looking for new investor, requires investment in electricity (Mphanda Nkuwa)	This project seems unlikely to proceed

	Project and location	Sector	Companies	Investment	Capacity, reserves or Transmission	Production starts (year)
3	**Oilmoz refinery**	Oil refining	Oilmoz	Up to $17 b	350,000 barrels per day	Uncertain
4	**Oil refinery Nampula/pipeline to Beira**	Oil refining	Radyolla Holding; IGEPE	uncertain	Still uncertain	Uncertain

Sources: Company websites and periodicals

* Ilmenite, Zircon, Rutile

[1] See #8 about Benga & Zambeze Mines

[2] Anadarko will probably sell some of its shares.

[3] ENI will probably sell some of its shares.

B. Timing and Magnitude of Fiscal Receipts

The timing and magnitude of fiscal receipts depend greatly on the way the contracts are negotiated in terms of tax concessions (including augmented and/or accelerated depreciation), the frontloading or backloading of receipts,[9] and the government's ability and efficacy in controlling transfer pricing, which can easily turn profits into losses resulting in zero corporate income taxes.[10] Despite this and the secrecy surrounding the contracts negotiated so far, various analysts including Biggs (2012), Hubert (2012), and Bucane and Mulder (2007) have estimated the revenue inflows and their timing.

The main result is that Mozambique should not expect significant fiscal receipts for another 10 years or so. For example, Bucane and Mulder (2007: Table A 3.1) estimate that, by 2020, all the mega-projects including Mozal and various hydro-electric units will only contribute 6.7% of total fiscal revenues, and the mining and gas projects will only contribute 3.2%.[11] Though many new investments have begun or been planned since their study, their conclusions, at least till 2020, are in the main still valid: the big revenues will not start before then. For example, though Anadarko's LNG plant may start producing in 2018, but cost recovery will only be complete by 2023 or 2024, which is when the really big revenues will start flowing to the government. From that plant alone the government will experience a 5-to-10 fold increase in revenues.[12]

> The discoveries of Anadarko and ENI in the Rovuma Basin place Mozambique in the top tier of countries in the world with large natural gas reserves. Based on existing discoveries, Mozambique has proven and probable reserves of between 57 and 70 trillion cubic feet of gas. And seismic information of the current discovery areas suggests that there could be more than 120 tcf of possible reserves. Analysts estimate that natural gas could bring Mozambique revenues of as much as $400-500 b over the next several decades, a huge windfall for a country whose exports are expected to be about $4 b this year (Biggs 2012:15).

According to a high industry official, once cost recovery declines sufficiently, the government will get over 50% of the revenues. Moreover, when the R-factor gets high, it will be a 90-10 split of profits between the GOM and Anadarko.[13] Nevertheless, the delays between negotiation, investment, production, exports, investment recuperation and, finally, significant revenues for the government are long. That could, however, be considered beneficial, as it would allow Mozambique the time to build its capacity to supervise, audit, control and manage those revenue streams and thus capture the bigger part of what is legally owed. Civil society too can benefit from this delay in order

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[9] E.g., the size of the signature bonus; the level of the tax on production; existence of excess profits taxes; and the accelerated depreciation allowances which delay the start of profits and income taxes. In Mozambique, "accelerated depreciation (generally 25% straight-line) is available to all projects, and the allowed basis for depreciation is **twice** the actual asset value" (Foreign Investment Advisory Service 2006:30 cited by Hubert 2012:35).

[10] For example, in Tanzania, "The government undertook a major review of the mining sector and its contribution to the economy and concluded that, in 2006, natural resource exports of nearly $1 billion had generated royalty payments of only $26 million. The modest revenue was due in part to tax exemptions including accelerated depreciation of capital investments. But there were also concerns about aggressive tax avoidance strategies adopted by companies. Many large gold mining companies had never paid corporate income tax, claiming losses in each year of operation. A report to Parliament indicated that mining companies had declared losses of $1.045 billion between 1998 and 2005.

"In 2009 the government formalized efforts to oversee the collection of revenues from the natural resource sector with the establishment of the semi-autonomous Tanzania Minerals Audit Agency. … The 2011 audits raised discrepancies that are currently being investigated by tax authorities including unqualified expenditure deductions of $335 million, wrongly claimed losses of $183 million, over-claimed capital allowance of $145 million, disallowable expenses of $34 million, and understated mineral sales of $18 million" (Hubert 2012:19).

[11] Biggs (2012:18) seems to think that big revenues will begin in 2020. However, it very unlikely that there will be a significant increase in government revenues from the LNG plant merely two years after it starts production and far before Anadarko's investment will have been recuperated and no income taxes will be paid. Indeed, government revenues usually begin to grow substantially only five or more years **after** production and exports begin.

[12] Interview with key industry official, anonymity requested.

[13] An R-factor is the ratio of cumulative receipts from the sale of a hydrocarbon to cumulative expenditures. This ratio is initially zero and gradually grows in time. During exploration there is no sale of the hydrocarbon while there may be considerable expenses. An R-factor less than 1 would mean that costs have not been fully recovered yet: total expenditures exceed total receipts. The larger the R-factor, the more profitable the operation.

to develop its analytical, communicative and diplomatic skills and widen its base and support from the population.

Meanwhile, despite the government's insistence in keeping earlier contracts classified, it has brought the core elements of Mozambique's "mineral fiscal framework much closer to industry norms", that is, if special exemptions or reductions have not been ceded (Hubert 2012:17). Moreover, according to last draft of the new mining law, new contracts are expected to be made public, which would impose greater public scrutiny and—if deviations from the model contract occur—criticism, a spur to better discipline and, hopefully, significant revenues.

By contrast, for projects negotiated before 2007, the IMF (2011:15) estimates that their contribution to tax revenues comprised merely 5% of their profits due to the generous tax exemptions imbedded to those early contracts as opposed to an average of at least 30% of profits if the 2007 fiscal regime were applied.[14] With the new fiscal regime in place—though it may not be optimal—substantial revenues now seem certain.

III. The Roles of Government and Civil Society

A. Challenges for government and lessons from other countries

Resource booms precede the 20th century. Even in pre-modern times, local economies were sometimes dominated by mining for metals, such as tin in Cornwall, though economic statistics of that era are lacking. "Gold rushes" of the 19th century in places such as Australia, South Africa, and California precipitated rapid increases in wealth in these areas, large migrations, epidemics, and inflation—effects often still seen in extractive industries booms today. Resource booms have had a variety of short- and long-term effects on the countries that experienced them. Some of that was due to the pre-existing conditions in the country; some to the nature of the boom itself; and some to the manner in which country managed the boom.

Crude oil has been one of the most prolific sources of a resource boom in various countries, most notably the Persian Gulf. Other areas include: in Asia, Indonesia, in Latin America—Mexico and Venezuela, parts of the former Soviet Union, Canada (Alberta), USA (Alaska). Within Africa, notable countries have been Angola, Nigeria and Angola.

Other hydrocarbons, such as coal, have also precipitated booms in places such as Australia, Indonesia, and South Africa, along with minerals, such as diamonds in Botswana or copper in Chile.

A natural resources boom is characterized by the rapid exploitation of a non-renewable resource that leads to large exports of the resource that represent a very important, if not dominant, percentage of the economy and leads to an influx of revenues to the government, if not to domestically-based companies working in the sector as well. Managing such a sector does bring certain challenges, particularly in terms of the economic and human capacity to manage such sudden changes in the economy, but the experience of each country is unique. Nevertheless, more often than not, at least for developing countries, a resource boom has tended to not lead to long-run benefits for the country as a whole, or at least, the country is unable to come near to fully taking advantage of the economic benefits of the boom. This is sometimes referred to as the "resource curse." There are six basic reasons for why countries do not benefit, or do not benefit fully: "1) the 'Dutch disease',[15] 2) insufficient economic diversification, 3) rent seeking and conflicts, 4)

[14] This realization has also spurred considerable discussion about how to renegotiate those early contracts. In this context, the IMF (2011:16) recommended: "The mission recommended that the authorities adopt a prudent approach [for renegotiations] that balances the interest to generate additional revenues for the budget with protecting Mozambique as a destination for foreign investment. It pointed to experience from elsewhere (e.g., Peru, Tanzania) which suggested aiming for an amicable agreement with existing investors by trying to convince them that social peace and economic development in the country were in their interest as well."

[15] Dutch disease refers to the effects on a country's currency and inflation, and secondary effects thereof, from an export-driven resource boom, such that non-resource sectors become internationally uncompetitive. The six phenomena mentioned here often have effects on each other. For example, a currency appreciation (Dutch disease) can affect

corruption and undermined political institutions, 5) over-confidence and loose economic policies, and 6) debt overhang" (Iimi 2007:664).[16]

A detailed examination of the history of the EI in Botswana, Angola, Nigeria and Papua New Guinea highlights and compares the outcomes, both positive and negative, in regards to government policies and the role of civil society. A summation of this comparison indicates that while Botswana is an example of the best practices a developing country experiencing a resource boom could emulate, Botswana has also had some advantages not present in the other three countries. For example, Botswana did not experience a civil war, nor did it have an exploitative colonial regime. The examination reveals two other salient points. Firstly, booms can bring a host of negative effects without being all that large on a per-capita basis. Secondly, a boom can bring so many negative effects that a country can be made worse off if, of the six reasons for why a country does not benefit, several are particularly pernicious.

Of particular relevance for Mozambique, Botswana shows the importance of early intervention by donor agencies prior to the boom to help set the stage for the country to manage the bonanza. Another important part of Botswana's response to its boom was its focus and effective spending within the country for investment, including for education and health.

By contrast, Nigeria has famously suffered from immense corruption and mismanagement (Appendix I). However, the donor-funded effort to implement EITI is also relevant for Mozambique. In particular, Nigerian civil society has gone far in pushing for an enhanced, strong EITI called Nigerian EITI (NEITI). NEITI is a coalition of the government (including the legislative branch at the federal and state level), the extractive companies (and their representative associations) and civil society (including the media), all of which are represented on a 28-member National Stakeholders Working Group. NEITI is supported through a law that requires companies and government officials to comply with requirements that go beyond the most basic form of EITI to require *(i)* more sophisticated accounting of EI revenue flows to understand not only what was paid, but what should have been paid and *(ii)* increased transparency on the spending side, and impose penalties for non-compliance. Unfortunately, NEITI arrived after more than 40 years of entrenched corrupt practices. So, while it has had some success,[17] Nigeria still suffers from enormous corruption.

Given its highly-competent state oil company, Sonangol, Angola seems, at first glance, to have a much better-managed oil sector than Nigeria. However, Sonangol uses its competence to manage corrupt practices that divert revenues away from benefitting the country. This is a cautionary tale for Mozambique as ENH grows into an important company in the natural gas sector.

Mining can have direct effects on a community in terms of health, pollution, and relocation in a way that offshore gas development does not. Papua New Guinea is a cautionary tale of a different sort, as local traditional communities have had to suffer greatly for mines that may benefit the national treasury, but have little positive effects for the local people. This can lead to conflict, even violence, which, of course, has been scourge in Nigeria's Niger Delta oil-producing area.

B. Civil society's role and capabilities

1. Analytical capability

Civil society organizations (CSOs) in Mozambique emerged initially as service providers, mainly for humanitarian assistance (Francisco et al. 2008). In recent years, organized forms of civil society have increasingly assumed the role of development promoters, participating in research and advocacy actions to monitor and influence public and community development policies. Their role has been gradually recognized by the government and other development actors through policy documents such as the country's development vision, *Agenda 2025,* the Absolute Poverty

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economic diversification efforts.

[16] For a comprehensive comparison of the extractive industries and the nature of the resource boom in four comparative countries (Botswana, Nigeria, Angola and Papua New Guinea), see Appendix I on p. 45.

[17] Nigeria achieved basic EITI compliance in March 2011.

Reduction Action Plan (PARPA II), and the establishment of participatory mechanisms such as the Development Observatories and the District Consultative Councils.

Despite growing interest to contribute in the governance processes, the engagement of CSOs is still weak, especially in the area of extractive industries, due to lack of skilled personnel able to understand the sector's political economy and conduct advocacy based on solid research.

Except for the *Instituto de Estudos Sociais e Económicos* (IESE) and *Centro de Integridade Pública* (CIP), CSOs have seemed slow in responding to the needs arising due to the investments by the EIs. They are also hampered by the lack of information, the complexity of the available data, the inadequate investment in human capital within the CSOs, and their concentration in Maputo with poor technical and organizational links with grassroots organizations in the provinces and districts where extraction is occurring. Moreover, in Mozambique as elsewhere, they are fragmented. Each struggles to be more aggressive than the others in the competition for more donor funding. This impedes the creation and maintenance of effective advocacy and invites criticism and questions about whom they serve.

Though IESE has skills and high profile academic staff who do rigorous and high quality academic research, it is not an advocacy institution. Nevertheless, its research is relevant for informed debate and evidence that can be used by other organizations to lobby for policy changes concerning the sector. Indeed, to achieve policy changes requires advocacy, wide-scale information campaigns, organizing and lobbying. However, in general, CSOs—including the media—are not yet meaningfully acting as effective watchdogs in the extractive industries sector. Weak and lacking a clear strategic vision for their participation in the extractive industries, they have limited capacity to understand the political economy of the sector and proactively undertake timely and informed advocacy work around the legal, institutional, and public-policy framework and build and maintain advocacy coalitions and technical links with grassroots organizations. Moreover, the CSOs that have greater analytical capabilities tend to be concentrated in Maputo since it is the country's capital.

2. Advocacy and communication capabilities

To enhance advocacy and communications capabilities about the extractive sector in Mozambique, a group of civil society organizations launched a national "Publish What You Pay" (PWYP) coalition in 2008 to monitor development and government policies in the extractives industries. The coalition comprises various Mozambique organizations working on diverse development issues and is part of the international PWYP campaign and coalition currently present in the five continents.

Mozambique's Publish What You Pay coalition was composed of organizations working on research, advocacy, and monitoring of socio-economic development, the environment and natural resources, budget transparency, and anti-corruption. The groups were based both in Maputo and the provinces where prospecting and exploitation of natural resources occurs, including Tete, Zambézia, Nampula, and Cabo Delgado. The coalition played a key role in pushing the GoM to advance and adopt EITI.

The PWYP Mozambique coalition was hosted by the *Centro de Integridade Pública* and had a work plan funded by the Norwegian Embassy in Maputo to do research, advocacy, public awareness, and monitoring. Out of this, the first books and reports on extractive industries were written and good collaboration with local organizations occurred to monitor the socio-economic and environmental impacts in the exploration and exploitation areas.

The Norwegian fund for the first PWYP project ended in 2011, and the participating organizations decided to extend membership to other interested organizations, thereby creating the Civil Society Platform on Natural Resources and Extractive Industries. Whereas, in the previous platform (PWYP), the participating and national members had a clear mandate and controlled the entire decision-making process, despite being donor funded, the newly established platform received clear instructions from the donor (Norway) that the funds should be channeled to WWF.

Furthermore, other members of the platform did not have information about how WWF was using the funds.

The Platform on Natural Resources and Extractive Industries with a Secretariat at WWF has been functioning since the end of 2011 and had some successes in advocacy work. Nevertheless, it has lacked a good understanding of what to do as the key leading group (CIP, IESE and the Rural Environment Observatory (OMR). Various members of the platform (e. g., CIP, IESE, OMR, IBIS, etc) have suggested that it should be used for joint advocacy and as a space to disseminate information and publications on the extractive industries prepared by member organizations.

Member organizations are not expected to relinquish their daily activities, though some members have misunderstood this. Having a Mozambican platform hosted at WWF has been met with some controversy by some of the national CSOs since WWF is an international organization. As a result, pressure exists to move the secretariat to a national CSO supposedly to ensure it will be hosted by an independent and impartial organization firmly committed to transparency, responsible management of natural resources, consensus building, and unity. In April 2013, member organizations of the platform convened to decide on a new institutional arrangement, and *Centro Terra Viva* (CTV), a Mozambican NGO, was selected as the new host for the secretariat.

For the last five years, CSOs have been advocating contract transparency, and soon all future contracts are likely to be in the public domain, pending finalization of the legislative framework. In the short-term, CSOs will not, however, be able to analyze them due to capacity constraints. Moreover, the fiscal regime is being revised, and CSOs are not involved in this debate and process. Lacking sufficient analytical capability, many CSOs cannot advance on many of the topics for discussion, e.g., taxation, social, economic and environmental impacts, and the respective legal, institutional and policy framework.

3. Review of relevant best practices in other countries

To ensure that the resource boom and the windfalls lead to prosperity for Mozambique and its people, civil society must push for reforms to ensure transparency and accountability by the sector, not just for future but also for past contracts. This, however, this will require significant support from development agencies, including USAID. Other countries illustrate the potential benefits of such an approach. For example, by publishing concessions, contracts and agreements,[18] Liberia has gone beyond the basic EITI including agriculture and forestry.[19] Others like Nigeria have turned EITI into an act (The Nigeria EITI Act), which mandates the participation in EITI by all relevant company and government agencies and applies criminal sanctions against individuals or organizations that refuse to comply. In Ghana, Liberia, and Tanzania, CSOs have also expanded their engagement by targeting millions of dollars of payments evaded/avoided by the sector and pushing for robust legislation to govern the extractive industries.

C. Human-Resource Constraints and Requirements

Mozambican human resource (HR) capacities are underdeveloped when compared to other African countries as well as to the demand for labor brought about by the EI boom (Mo Ibrahim Foundation 2011). EI companies and their contractors interviewed universally note problems not only with the numbers of graduates but also with the skills levels and particularly the practical experience of graduates. This lack of skills is at all levels but particularly at the technician level, e.g., carpenters, plumbers, and electricians. One source noted that, for every mining engineer, 50 trained technicians are needed, and that math is driving and skewing HR shortages. Moreover, gender imbalances are strong in the educational sector and this is carrying through to the workforce. Consistent with this, women are under-represented in extractive industry posts.

[18] www.leiti.org.lr/doc/LEITI3rdReport1.pdf

[19] Concessions, contracts and agreements are available through www.leiti.org.lr/2content.php?main=65&related=65&pg=mp

Just how many trained personnel are needed, and in what categories? No data and no projections exist. Specific information needed to plan a strategic and national response to meet industry demand is not available. The Deputy Minister for Education (responsible for Higher Education) in an interview on 31/1/2013 did indicate, however, that the Ministry of Education needs such information to plan adequately for the future.

D. Recommendations for USAID: Role of Government and Civil Society

1. Ways that USAID could enhance civil society's capabilities for analysis, advocacy and communication

Solid analytical work is the key for advocacy to succeed. Toward that end, USAID could distinguish itself from other development agencies by using high-profile American universities and institutions to train key activists in Mozambican CSOs about the upstream and downstream issues in the extractive sector. Effective and strong advocacy coalitions can also enhance the efficacy of advocacy work. In this regard, USAID could:

- Fund the Civil Society Platform on Natural Resource and Extractive Industries mainly for advocacy purposes *if* the platform were organized and led by Mozambican civil society. More support should also be channeled to individual CSOs with transparent internal mechanisms for accountability and a proven commitment to address the key challenges in the sector;
- Fund CSOs committed to analyze and work on the legal and institutional framework governing the sector and address conflicts of interest and corruption, especially since EITI's and PWYP's present analysis ignores many avenues for such losses;
- Allocate financial and technical support to the media—mainly community radios in Cabo Delgado, Nampula, Zambezia and Tete—to cover extractive industries issues in different languages; invest in a laboratory for media training in collaboration with well-established institutions overseas. For example, Ghana has a media hub for training. USAID could establish support such initiative in Mozambique possibly through IREX,[20] in Mozambique to lead the process and build collaboration with all media institutions (central and local);
- Fund for one or two weeks an intensive training session in Mozambique about the entire value chain of the extractive industries, lectured by experts from NORAD, Columbia University, Revenue Watch Institute, local CSOs, and other leading institutions. The training would be for approximately 10 journalists committed to covering and investigating the extractive industries. Each one would be assigned to investigate for three months a specific theme, e.g., taxation, corporate social responsibility, resettlements, or revenue management. If of acceptable quality, their research would be published and used by interested stakeholders to influence public debate and policies;
- Support translation into local languages (mainly the languages of those living in the exploration and exploitation area) of all legal instruments such as the mining and petroleum laws, and other instruments related to transfers to the sub-national level ;
- Fund CSOs to undertake public awareness and advocacy work about extractive industries. Provide financial support for CSOs to monitor socioeconomic and environmental impacts in the exploration and exploitation regions with a focus on institutional collaboration with local CSOs to transfer knowledge and ensure sustainability of the interventions; give financial support to analyze the legal, institutional and policy framework applied to extractive industries; and
- Support active CSOs (in collaboration with community-based organizations) to monitor the budget and track all fiscal transfers to provinces and communities including the 2.75% that have to be channeled to communities according to the 2013 budget law;

[20] Civil Society, Education and Media Development

In order to complement initiatives[21] that focus primarily on transparency, USAID could also examine the economic potentials in the natural resources and how to unleash this potential to serve and finance broader development in Mozambique. This implies funding CSOs to *(i)* analyze the tax regime to spot loopholes for tax evasion and capital flight, *(ii)* compare Mozambique's tax regime to international norms and best practices elsewhere for extractive industries, and *(iii)* examine other economic problems associated with the extraction of natural resources.

2. Critical Assistance for Human Resource Planning

Though USAID is unlikely to become massively engaged in education and skills training, it could—at low cost—make a strategic contribution by cooperating with the Higher Education Science and Technology (HEST) Project for Mozambique to finance the creation of rolling five- and ten-year projections of skills requirements and availabilities at a level sufficiently detailed to allow the Ministry of Education and the various private and public training and educational institutions to plan and initiate courses to create those skills in adequate numbers. This assistance should also consider measures to encourage and enable more women to enter professions where, at present, they are sorely underrepresented.

IV. Transparency

A. Mozambique and the International Context

Though well-negotiated contracts can yield high windfalls, the financial flows from the extractive industries to the host governments in developing countries are often not in the public domain. Resource-rich countries can fail to maximize social and economic benefits. They often "squander their wealth, enriching a minority, while corruption and mismanagement leave the majority impoverished" (Shultz 2008:7).

> In many cases, this leads to destabilization and provides a basis for social unrest and conflict. Revenues that are not subject to democratic control may be used to finance armed conflict, which in turn is an obstacle to development. This shows how important it is for countries with natural resources to develop sound and effective frameworks to ensure that the resources benefit the country and its inhabitants (Norwegian Ministry of Foreign affairs 2009:52).

As the key players in the host-government agreements, governments and companies have the challenge of ensuring transparency and controlling corruption. As the owners of their country's natural resource wealth, civil society has the responsibility of addressing these issues by pressing the government toward transparency and accountability.

In recent decades, various international efforts—from governments, international organizations and professional associations—have emerged to tackle corruption and promote transparency within multinationals. For example, the US Foreign Corrupt Practices Act of 1977 prohibited questionable or illegal payments made by U.S. citizens or corporations to foreign government officials, politicians or political parties (Rose-Ackerman 1999 cited by Keblusek 2010:6). Though this law reduced American involvement in foreign bribery, it did not address illegal payments made by non-Americans. Furthermore, U.S. corporations felt that the law put them at a competitive disadvantage as compared to corporations based in other countries, some of which even allowed tax deductions for bribes. In 1999, however, the Organization for Economic Co-operation and Development (OECD) passed the OECD Anti-bribery Convention in order to control payments from multinational investors to public officials in developing countries (Moran 2006 cited by Keblusek 2010:6). Since then, all 30 OECD countries and various non-OECD members have enacted anti-

[21] E.g., the Extractive Industries Transparency Initiative (EITI), Publish What You Pay (PWYP), and the World Bank's recent project to be implemented in Mozambique

bribery laws based on the convention, making it illegal for one of their multinationals to bribe an official in a host country.

Some international professionals and business organizations have also put anticorruption initiatives on their agenda. The International Chamber of Commerce issued a recommendation in March 1996 urging its members to adopt rules of conduct designated to limit bribery in international trade. The rules prohibited bribery for any purpose, not just to obtain or retain business. Similarly, the Council of the International Bar Association adopted a complementary resolution in June 1996 (Rose-Ackerman 1999:186).

In December 1999, Global Witness published *A Crude Awakening,* an exposé of the apparent complicity of the oil and banking industries in the plundering of state assets during Angola's 40-year civil war. The major multinational oil companies' refusal to release financial information aided and abetted the mismanagement and embezzlement of oil revenues by the country's elite. The report launched a public call for the oil companies operating in Angola to "publish what you pay". The lack of transparency in the extractive industries was also a big concern with other resource-rich but poor countries. Therefore, in June 2002, Global Witness along with other founding members (Catholic Agency For Overseas Development, Open Society Institute, Oxfam GB, Save the Children UK and Transparency International UK) launched the Publish What You Pay campaign calling for all natural resource companies to disclose their payments to governments in every country of operation.[22]

The Extractive Industries Transparency Initiative (EITI) was launched in September 2002 as an international initiative with the technical and financial support of international financial institutions (IFIs) and donors. The initiative seeks to improve transparency and accountability through regular publication of all material oil, gas and mining payments by companies to governments ("payments") and all material revenues received by governments from oil, gas and mining companies ("revenues"). This information would then be circulated to a wide audience in a publicly accessible, comprehensive and comprehensible manner (EITI International Secretariat 2011). Subsequently,

> EITI has become an international standard for governments and companies to disclosure payments and revenues as a mean for public accountability concerning revenue management and informed debate on the equitable and sustainable utilization of the country's natural resources, thus limiting opportunity for corruption and mismanagement (Norwegian Ministry of Foreign Affairs 2009).

With the belief that EITI can push for transparency and accountability and thus limit opportunity for corruption in the resource rich countries, governments have been implementing EITI to monitor and analyze different revenue streams for profits/taxes, royalties, dividends, licenses and concessions as well as in-kind payments.

So far, 18 countries have been declared EITI compliant (meeting all requirements in the EITI standard) and 19 are still candidates.[23]

> The initiative is robust yet flexible, allowing each implementing country to shape its own process according to its needs as each country has its individual governance's challenges. Every implementing country implements the EITI in different ways. Some require total disaggregation of revenue information; some have set expansive standards for materiality; some include sectors beyond oil, gas and mining; some seek to include transparency of both contracts and operations; and some seek to include transparency of expenditures. But all use the multi-stakeholder oversight model to reach decisions about these issues and to monitor their impact (Revenue Watch Institute 2008:7).

According to the EITI Principles, "Prudent use of natural resource wealth should be an important engine for sustainable economic growth that contributes to sustainable development and poverty reduction, but if not managed properly, can create negative economic and social impacts" (EITI International Secretariat 2011:10).

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[22] www.publishwhatyoupay.org/about/history
[23] More information is available at *http://eiti.org/countries.*

B. Recommendations for USAID: Transparency

1. Broadening EITI coverage

Mozambique's decision to join the EITI evidenced the government's will to overturn the previously obscure framework characterized by a lack of transparency in the extractive industries by instituting the systemic publication of payments and revenues from these industries. EITI is thus an opportunity for systemic changes in the governance of the sector, ensuring transparency, integrity and accountability as means to maximize social and economic benefits for the country.

Mozambique was admitted as an EITI candidate country on 15 May 2009, and in February 2011, it published its first report on payments and revenues for 2008. Though EITI's International Board deemed the report partly defective, it specified remedial actions to be implemented within 18 months, that is, before 15 February 2013, for Mozambique to be considered a complaint country.[24] After Mozambique published its second report in March 2012, the board requested its International Secretariat to conduct a review for submission to the board via its validation committee (Nombora 2012). Accordingly, on 26 October 2012, the EITI Board declared Mozambique "compliant" with the EITI Standard, namely, that it has an effective process for annual disclosure and reconciliation of all revenues from its extractive sector. This allows citizens to see how much their country receives from oil, gas and mining companies.[25]

The EITI Board issued the following recommendations:

(i) "Mozambique must be revalidated within five years (i.e., by 26 October 2017);
(ii) "Stakeholders in the process may call for a new validation at any time within that period if they think the process needs reviewing;
(iii) "Where valid concerns exist that a country has become EITI compliant, but its implementation of the EITI has subsequently fallen below the standard required for compliance, then the Board reserves the right to require the country to undergo a new validation or face delisting from the EITI;
(iv) "In accordance with the 2011 edition of the EITI Rules, Mozambique is required to produce EITI reports annually. EITI Reports should cover data no older than the second to last complete accounting period (i.e., compliant countries must publish a 2010 EITI report by 31 December 2012 to meet the requirement for timely reporting); and
(v) "In accordance with requirement 21(c), Mozambique should also publish and disseminate an annual report of each year's activities, detailing progress in implementing the EITI and any recommendations from the validator."[26]

Basic EITI standards are useful by indicating the minimum a country must do to become EITI compliant. But that is just a starting point. The benefits of EITI-effective sector management, increased revenues, improved governance, indicators of a better investment climate are likely to accrue to those countries that implement more robust EITI programs, rather than just the minimum necessary to preserve their reputation (Revenue Watch Institute 2008:37). Rather than mere publication of payments and revenues, the country should not be afraid to go beyond the basic EITI and publish all other relevant information about how the government interacts with companies and other stakeholders involved in the exploration, exploitation and management of the resources. To broaden EITI's coverage, Mozambique should:

- *Publish all (including past) contracts as done under the Liberia Extractive Industries Transparency Initiative (LEITI)*

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[24] *http://eiti.org/Mozambique*
[25] *http://eiti.org/news-events/mozambique-declared-eiti-compliant*
[26] *http://eiti.org/news-events/mozambique-declared-eiti-compliant*

Public disclosure of host government agreements is an essential step for revenue transparency and accountability:

> Without public disclosure of contracts between companies and host government it is difficult for citizens to know what their country's natural resources are being sold for or to judge whether payments made match the terms of the original agreements. Such contracts provide the terms and the formulas used to determine how costs will be determined and how profits will be divided between the company and the host government. In order to hold governments and companies accountable, the public needs to know the terms of the agreement between the company and the host government (Publish What You Pay and Revenue Watch Institute 2008:25).

Publication of the contracts is crucial for an informed public debate and scrutiny to verify the extent that the companies pay what they should as per their contract with the state, to what extent institutions (e.g., the National Petroleum Institute, the General Tax Directorate, and other public institutions responsible for collecting revenues) collect what they are owed, and publish what they receive. The revised mining and petroleum laws mandate contract disclosure only for new projects. The publication of both new and **old** contracts would allow access to information on local economic development, land use, and the rights of communities, which, in many cases, are defined in the contracts, and permits an informed debate about whether, on behalf of its people, the government has signed fair and competitive contracts (Nombora 2012b).

- *Ensure transparency in the awarding of licenses*

As done in Liberia under the LEITI, transparency and integrity must be ensured in the awarding of licenses as a way to address the growing conflicts of interest and corruption around the licenses, which reduce the country's ability to garner revenues from its natural resources. Moreover, licenses should only be granted to people or companies with a demonstrated ability and clear plans to execute the surveys and/or invest and start mining or extraction.

- *Include non-production-related payments*

EITI policy only calls for disclosure of revenues from the direct production of oil, gas, or mining. Unfortunately this omits some indirect payments by companies. In many countries, company "social payments," sometimes known as corporate social responsibility payments, are omitted from EITI programs though these payments are often *(i)* significant; *(ii)* tax-deductible expenditures which therefore reduce production related tax liability; and *(iii)* sometimes negotiated in lieu of normal production-related payments (i.e., a government agrees to reduce a tax or royalty rate in return for a company providing payments, goods, or services directly to the country or to the communities where they operate (Revenue Watch Institute 2008:30). Mozambique should publish all social payments deriving from the extractive industries (corporate social responsibility, social funds, capacity building funds and other non-production relate payments) as well as information on how the funds are being applied and managed.

- *Publish of all payments made in the extractive sector*

The GoM should publish all payments from upstream and downstream, including signature bonus (which so far is not included in the report though this could be substantial amount to be considered if signature bonuses become important in the future) and capital gain (the latter is a recent phenomenon with a potentially very significant amount given revenues from the taxation of the Cove Energy deal). Also, the EITI report should publish information about the destination of in-kind payments and their financial outcomes.

- *Institutionalize EITI in a statutory law to ensure its continuity and long-term sustainability*

  Though EITI does not require regulation or legislation to ensure that all companies report, regulations or legislation ensure that, as part of the EITI process, all companies and government entities report—not simply those who choose to.

  > In many countries, even in those that have made substantial progress toward implementing EITI, the government's future commitment to the initiative remains uncertain simple because of the possibility of regime change. The likelihood of continued government support for EITI will be enhanced if the initiative is embedded in statutory law, rather than simple authorized by executive decree (Revenue Watch Institute 2008:22):

  This would help to guarantee the companies' cooperation. For example, for the 2009 and 2010 EITI reports, some companies simply did not respond to the EITI template. To avoid this, any company receiving a license or contract should be required to commit to EITI, as has been done in Kazakhstan.

- *Regulate all payments by law*

  All payments should be regulated by law and that information should be accessible so that citizens have information on what should be paid by the sector for exploration and exploitation. Presently, there is no publicly known information about the criteria used to determine the payments for social funds and capacity building that must be paid by petroleum companies. Instead, that is determined case by case and is thus open to corruption and mismanagement.

- *Include of other sectors (broadening the EITI model to other public businesses)*

  Apart from extractive sector and considering the revenues derived from some non-extractive sectors, the Liberia experience reveals the usefulness of including forestry as well as the aluminum and power generation companies such as Mozal and *Hidroelectrica de Cahora-Bassa (HCB).*

- *Gauge what should have been paid*

  Mozambique should use the EITI process not only to determine what has been paid and received but, as Nigeria does, to gauge whether anything else is owed (Revenue Watch Institute 2008). EITI should be used to inform public debate on to what extent companies' payments are in line with resources extracted and exported.

  EITI has potential to be a hugely relevant initiative and diagnostic tool for governance problems in the extractive industries in Mozambique. However, for this, it must go beyond the basic framework and be widened in scope and embraced by the government as an initiative for good governance. This would also help to ensure its sustainability since, till now, it depends on donor funds when the donors are under pressure to reduce foreign assistance. In the end, the government must finance EITI, especially if its scope is widened.

2. Aiding the government to enhance EITI and other transparency efforts

The Tax Authority, the Center for Investment Promotion and the National Budget Directorate appear to be among those who favor a more broadened and effective EITI in Mozambique. However, according to various civil society members integrating the EITI Committee, the Ministry of Mineral Resources (MIREM) is at the forefront of opposing a broadened and effective EITI, especially concerning systematically publishing and making widely available information about the owners of mining licenses and shares in companies. Reportedly, some top officials in MIREM who are simultaneously in charge of implementing the EITI have private business interests in the mining and oil sectors (Machel 2012).

To help to enhance EITI's coverage in Mozambique, USAID could:

- Contribute to common fund after negotiating and receiving guarantees that the OGE would cover EITI costs with a clear mandate to go beyond the basic standards by *(i)* publishing all past and future contracts as done under the Liberia Extractive Industries Transparency Initiative (LEITI), including those with the aluminum and power companies (Mozal, HCB) and large infra-structure projects, *(ii)* publishing all payments derived from the extractive industries (corporate social responsibility, social funds, capacity-building funds, signature bonuses, and other non-production-related payments).
- Fund the Budget National Directorate to publish *(i)* timely and comprehensive In-Year-Reports documenting all payments (including those channeled to specific entities like the National Petroleum Institute) from the extractive companies, *(ii)* reports about sub-national funds allocated to and spent in the provinces, and *(iii)* a non-technical document (citizen's in-year report)[27] to be disseminated to provinces and grassroots organizations so they know the fiscal flows around the sector and what should be channeled to their specific areas; and
- Finance the Ministry of Mineral Resources to establish an electronic database with timely and comprehensive information about the license and contract process, to be publicly available on the Internet. This would be a welcome step to ensure transparency and integrity and build citizens' trust in the government.

3. Aiding Mozambican civil society to raise awareness about EITI

One of EITI's validation indicators concerns dissemination, i.e., making the EITI report publicly available, and in a way that is publicly accessible, comprehensive and comprehensible. In Mozambique, effective initiatives are still lacking to make the general public aware of EITI and, more importantly, to disseminate widely information about fiscal revenues. So far, dissemination of the EITI in Mozambique comprises the launch of the reports, some television coverage, distribution of reports to a few stakeholders, printing some pamphlets, and conducting road shows in a few provinces. Meanwhile, CSOs, mainly CIP and IESE, have been analyzing the EITI reports and publish their findings on their websites and in the main print media, but this reaches few people. The analysis by CIP and IESE cover not only the EITI reports but also the extractive industry value chain, conflicts of interest, rent-seeking, and so on.

The methods to disseminate information about the initiative are still centralized in few provincial capitals and Maputo and do not focus on the communities where the mineral exploration and exploitation is occurring. In Maputo, some "high profile" people, including journalists, academics and members of the parliament still lack information about EITI whereas, for EITI to be effective, much more and wider awareness is needed.

Recently the World Bank started a project to strengthen CSOs' contributions to EITI's implementation by facilitating their participation at the MSG, broadening the definition of civil society, and increasing the diversity of CSOs involved in the EITI process by *(i)* funding activities to increase its inclusiveness and stimulate improved networking, capacity building, and information dissemination among civil society groups and *(ii)* supporting initiatives proposed by local CSOs to increase ownership and capacity. The World Bank project was designed to start in December 2012 and end in June 2013, supposing that in a semester it could enhance CSOs' capacity to engage in the EITI—a dubious assumption.

[27] Citizen Budget is one of the key recommendations for budget transparency defended by the Open Budget Initiative. For more information www.internationalbudget.org

To overcome this limitation, USAID could create a project, lasting three, four or five years to ensure creation of technical capacity and bring many CSOs to include EITI on their agendas to create wide-scale public awareness and avid discussion about EITI. The project should focus upon the media (newspapers, magazines, radio and televisions) and CSOs so as, eventually, to reach a broad audience through their newsletters, briefs and printed and electronic reports, especially if widely distributed and written in various local languages. More importantly, though not clearly incorporated in the World Bank's project, all payments by extractive industries made directly or indirectly to sub-national governments should be published, including the recent 2.75% of the revenues that will be channeled to local communities where exploration and exploitation is occurring. Though not yet part of the EITI, this information is available in the National Budget Directorate and the Enacted Budget and it can be rewritten in non-technical language. Thus written, it would be comprehensive and comprehensible and could be disseminated to a wide public. Dissemination of the EITI report in the provinces would also allow provinces and communities to verify and enhance the fiscal flows received by them. A big focus on this would also empower CSOs to follow the money through budget monitoring and expenditure tracking.

The project could also use classic ways for raising public awareness through sports stars and musicians. However, such methods would not reach the rural mining areas, which have little analytical information about the extractive industries. There, traditional leaders and the community radios would be better at spreading information on: *(i)* EITI reports; *(ii)* extractive industries benefits and risks in general; *(iii)* cross-cutting issues (e.g., HIV-AIDS) related to extractive activities and the presence of large numbers of migrant workers.

Despite the short six-month life of the World Bank project, USAID could improve its own project by examining and learning from what the bank's project accomplishes as well as from the obstacles it encounters.

V. Resettlement and Other Potential Conflicts arising from EI Development

A. Short international literature review

Various authors suggest that conflicts arising from the EI development are intense all over the world because: *(i)* local communities often bear the brunt of the health impacts from pollution while also losing their alternative means of subsistence (as many EIs destroy local farms or ecosystems) and reaping few benefits; *(ii)* EI operations are not very "footloose" (that is, they have to locate where the minerals are found), and *(iii)* they are highly capital-intensive so that once they make the initial investment, they need to operate uninterrupted for long periods of time in order to recoup their investments (De Echave 2006, Lungu & Mulenga 2005). Thus, being long-term investments, the companies need to maintain good relations with local communities though, often, sharp frictions occur.

Examples from Chad, Cameroon, Ghana, Ecuador, Brazil and other countries show that the best way to contain, mitigate or avoid potential conflicts consists of developing strategies in collaboration with the affected communities, especially strategies that respond to their needs and concerns. Usually, this leads to a combination of workshops, collective action, and participatory research aimed at developing the local capacity to address issues such as legal rights and compensations and protecting environmental and social rights (Drost and Stewart 2006).

B. Scope, type, and intensity of potential conflicts in Mozambique

Skewed benefits, distorted income distribution, and land issues contribute to social conflict. The issue of benefits is intimately linked to resettlements, i.e., compensation for lost land, houses, animals and other goods. Moreover, the conflicts between farmers and the mining mega-projects are increasing. As Hanlon (2012) observed when commenting on a story about Cabo Delgado ruby mining:

> There is no agreed resettlement system for people displaced by mining. Peasants have right to farmland, which cannot simply be taken away and given to farming investors. But land can be taken away and given to mining companies—because mines are not covered by the land law in the same way.

Lack of information about what the investors should or should not do also leads to misunderstandings and rumors that prejudice the relationship between companies, local communities, and state representatives. Moreover, in such situations, the most disadvantaged are community members and villagers who lack adequate information, knowledge and skills to make informed opinions.

1. Lands and Licenses: The process for acquiring land and concessions

Mozambique has a land law that is widely recognized to be among the best in Africa, though it stops short of creating a free land market that would render land fungible and add immediately and significantly to national wealth. This law acknowledges customary rights and traditional rights and places the burden on the incoming investor to prove that the community has agreed to the presence of the incoming project. It also mandates community consultation on a community-wide scale and over a period of at least two months to confirm that communities do indeed wish for the presence of the investor. However, despite enabling legislation, private sector pressures, particularly in the mining and agricultural sectors, are beginning to make themselves felt and increasingly community interactions with incoming investors demonstrate that the intended rigor of the law is being diluted through a variety of tactics.

> [The] elites (political as well as economic elites) seem to be privileged in terms of gaining rights over valuable resources: land, water, forests and minerals most prominently. This happens because Mozambique currently lacks important elements of a well-functioning land and resource governance system. Weak land governance generates conflict, weakens the rule of law, and negatively affects the enabling environment for economic growth.
>
> Problems are especially visible in the community consultation and resettlement processes and with regards to women's land rights. Local people perceive that few are benefitting at the expense of the many; women are particularly vulnerable. Expectations related to revenue/benefit sharing, job creation, and service provision are being met only infrequently by the growing number of private sector investors operating in the country and by the GoM. Misaligned and frustrated expectations generate tension and conflict (Boudreaux, Cooke, Giampaoli, and Salomão 2012: 2).

The mining sector is currently undergoing an unprecedented boom, with a concomitant unprecedented increase in mining concession applications. There are a number of types of these concessions, each with different land implications for land and land conflict.

- A **reconnaissance** license allows the holder to carry out non-exclusive prospection over a period of two years and 100,000 ha. Non-renewable.
- An **exploration** license grants exclusive rights to prospection and investigation over five years, up to 25,000 ha. Renewable for a period of one year.
- A **mining concession** allows the holder to conduct mining operations, and is valid for the life of the mine, up to 25 years and renewable for further periods of 25 years. The size granted is what is "reasonable' for the operations contemplated, and a surface tax discourages overlarge concessions.

A DUAT[28] is also required, and must be requested within three years after the award of the mining license. As mining is a priority activity, other rights holders, including communities are considered to have their rights extinguished after the payment of "fair" compensation. In practice, start of mining operations is not dependent on the successful conclusion of the negotiation, deliberation and payment of this compensation (Sal and Caldeira, Advogados e Consultores, Lda. 2010).

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[28] Direito de Uso e Aproveitamento da Terra (Right to Use of and Benefit from Land).

Mining concessions are issued by the National Directorate of Mines that maintains a computerized database that is open to the public on only two computers in their public office in Maputo. Records are not to be taken of this database and it cannot be accessed externally. Also, it is neither linked with the INP database nor, with the DNTF database, although discussions about the creation of a unified database have been going on between the Ministries and agencies involved for years.

Applications for mining licenses must be handed in-person and are accepted on a strict first-come-first-served basis. This is transparent in that the geo-referenced data are entered while the applicant waits and, thus, the applicant knows immediately that his area has been provisionally reserved in his name. This does not mean, however, that the system is foolproof; one interviewee had his application declined only to see the same area awarded to another applicant several months later. And, in the ruby mining area of Montepuez, the pool of already-awarded licenses includes those of at least two ruling party generals whereas several interviewees without such strong connections reported waiting nine months or longer for replies to their applications.

Scrutiny of this database reveals that several provinces have been almost entirely divided into concessions or requested areas, with the two most densely allocated or requested being Tete and Cabo Delgado, with Nampula a close third. In Tete, the team was told that if most of these requests were granted, little land would be left for agriculture.

To further complicate the issue, legislated land rights, have, in several cases, been eroded in favor of big industry. The case of Matanusca, for example, foreshadows, to some degree, the way land rights can be eroded in favor of megaprojects. The Matanusca concession was formerly a cotton concession that folded. Instead of the land reverting to the displaced communities, the GoM 'held' the concession, which was then awarded to Matanusca company. Though the land law states that failed concessions are abolished, in this case, the GoM felt it convenient to 'hold' the concession for the next investor. Now the people who returned to the lands after the collapse of the cotton concession are being relocated again, without indemnification or due process, on the premise that the land was an already existing concession. This same dynamic is currently being used in ProSavana's geographic area and in Palma (for natural gas concessions).

ProSavana is the abbreviation for the Program of Triangular Cooperation for Developing Agriculture in the Tropical Savannahs of Mozambique. The Brazilian government and private sector are collaborating with Japan to push a large-scale agribusiness project in Northern Mozambique. The project will make 14 million hectares of land available to Brazilian agribusiness companies for the production of soybeans, maize and other commodity crops that will be exported by Japanese multinationals. In Meconta, the assessment team received confirmation that provincial government officials were telling small farmers near the railway line that they would be resettled for ProSavana. Apparently, officials are taking advantage of the fact that, for any incoming investment, two community consultations are required by law to give communities time to think over the proposals. Officials are using the first consultation to inform people that investors are coming and that the current occupants will be moved to create a reserve of land for use by ProSavana. Thus, the "consultations" become a command.

In Palma, the GoM is taking the concept of holding lands in reserve one step further. There, it has frozen all land titles. Officials in Cabo Delgado when interviewed confirmed that land requests for Palma are sent from the district directly to the central levels of the administration/Office of the President to handle. The GoM has also created a confidential zoning map of "Novo Palma" that indicates industrial areas for LNG plants, town expansion, tourism, and a 20,000 ha. *Reserva do Estado* immediately adjacent to the area reserved for industrial development. The legal figure, *Reserva do Estado*, does not yet exist in the land law. Within this area, however, some communities have already been told to move, with neither community consultation nor indemnification taking place.

All this points to a gradual encroachment of the state and elite interests on the land rights of citizens.

Two additional points are worth noting. First, there will actually be two resettlement processes going on in Palma. Anadarko Moçambique Área 1, Lda will be responsible for resettlement on the 7,000 ha that was allocated to them in December 2012 for the construction of an LNG plant, while ENH will be responsible for the 20,000 ha "Reserva do Estado".[29] Anadarko wants to get its resettlement done as best as possible and does not want any kind of adverse publicity. Anadarko will run its own resettlement, but the resettlement done on the 20,000 ha *Reserva do Estado* will be done by ENH[30] (the National Hydrocarbon Company), as revealed by an advertisement in the newspaper *Notícias* on 7/1/2013. However, in an acknowledgement of ENH's limited capabilities, Anadarko will help ENH manage the resettlements from the *Reserva do Estado*.

The emergence of the EI in Mozambique is bringing potential conflicts, some already felt, others still just a potentiality. Conflicts already exist between the companies and communities in many mining areas, mainly due to the lack of dialogue with and involvement by the affected communities in the decision-making during the resettlements. In almost all of the resettlements, the affected people had little or no participation in the discussion of issues like which season of the year was best for a move and whether the indicated new areas were appropriate for their social, economic and cultural lives. Timing has also been a great source of conflict between companies and communities. Many communities were given very tight deadlines to move, though the best practice is for the company, the communities and relevant government entities to define and agree on a resettlement schedule (Selemane 2010). Tensions built up and it was foreseeable that those communities could, at any time, vent their frustrations as happened in January 2012 in Moatize.

District and provincial government departments dealing with those conflicts appeared to have underestimated the real dimensions of the problem and took a long time to make decision. As a result, in Moatize, they failed to prevent popular demonstrations and maintain dialogue between Vale and the affected communities.

Conflicts may also build up between natives and non-natives in the mining areas. For instance, unrealistic promises or rumors of a "job for every native" (Selemane 2010) and lack of information and dialogue can spark conflicts between people born in a district (belonging to a certain tribe) and those who move from other districts seeking jobs.

Ethnic tensions are unlikely in the current Mozambique socio-economic context. The country's history (civil war along with big state-owned sugar and tea plantations and factories, which employed thousands of people from almost all provinces) has made every province and district rather cosmopolitan and, hence, it is hard to spark real ethnic tensions in the mining, oil and gas sites in Mozambique. Indeed, the "nativism phenomenon", usually associated with native languages and tribal frictions, is improbable in Mozambique because:

- Many native languages are spoken by people from different provinces and some tribes can also be found in different provinces. For example, Macua[31] in Nampula, Cabo-Delgado and Niassa; Nyanja in Niassa, Zambezia and Tete; Sena in Zambezia, Sofala and Tete.
- Mozambican families are very mixed in terms of religions, tribes, and native languages. Many families have members (siblings, cousins, sons, etc) who go to different churches and are married to people from other tribes and with different native languages.
- Due to the civil war and other factors, thousands of Mozambicans live in provinces where they were not born and, in practice, now "belong" there more than in their original ones.

[29] interview with representative, Anadarko Moçambique Área 1, Lda., 25/1/2013

[30] ENH is a government owned company mandated to hold shares in hydrocarbon companies in trust for the Mozambican people.

[31] One could include the northern districts of Zambézia as Macua speaking ones, but that is not correct as people from those districts speak Lomwé, which despite some similarities is different from Macua.

2. Resettlements: Learning from Moatize, Moma and Elsewhere

The literature about the resettlements done in Moma by Kenmare, in Moatize by Vale, and in Benga by Rio Tinto (ex-Riversdale) reveal the following sources and causes of conflict (Selemane 2010, Mosca and Selemane 2011 and 2012, Human Rights Watch 2012):

- *Lack of dialogue between companies, communities and state representatives.* Many in the companies and the government view the local communities mostly as just another stakeholder to be consulted, and never as rights holders whose identity, autonomy and cultural survival are inextricably linked to their relationship with the land. As a result, mining companies enforce procedures they deem "normal and natural" which the local communities considered bizarre and heretic (North-South Institute 2002; Selemane 2010). For example, the transfer of human remains in 2007 in Moma and in 2009 in Moatize caused protests and conflicts mostly due to insufficient dialogue between the different entities. Companies were in a rush to fulfill their work plans; the government was technically ill prepared and socially insensitive; and villagers ended up utterly frustrated and angry since they felt the companies and the government had cheated them.

- *Bribery of traditional leaders with money, houses and other goods.* Regardless of the disadvantages for the people, many companies expect to use bribery to "facilitate" the local community's acceptance of the company's agenda and projects. For example, in Moma, a house was built for the traditional leader of Khapula village. The local community members have always seen this house as bribery (Selemane 2010). In another case reported by *Notícias* (27/9/2012) as cited by Hanlon (2012), the companies in the Cabo-Delgado ruby mining won the traditional leader's support by building a monument to his ancestors and then proceeded to push local communities off the land.

- *Unfulfilled and unrealistic promises made to relocated people.* All of the most important mining mega-projects have faced, at least once, popular protests about the mining companies' unfulfilled promises to relocated people. For example, riots occurred in Moatize on the 10th of January 2012 when about 700 families relocated by Vale obstructed the Moatize-Beira railway impeding Vale's train from taking coal from Moatize mines to the port of Beira (Vunjane 2012, Mosca & Selemane 2012, *Diario de Moçambique* 2/7/2012).

- *Threats and criminalization of those who raise questions about peoples' resettlements, land grabbing, and the creation of few jobs*. For example, a commission for conflict resolution set up by the provincial government, reportedly accused and threatened Saize Roia, the traditional leader of Chipanga village in Tete, for allegedly being an agitator and "anti-development" (Selemane 2010). After the January 2012 demonstrations in Cateme, the local administration blocked the entrance to the resettlement area. To enter it, journalists, human rights activists, and socio-economic researchers had to get a permit, and many were threatened and accused of being agitators (Human Rights Watch 2012).

3. Resettlements and economic and social injustice: Institutions and methods to avoid or mitigate conflicts

a. *Negotiating Resettlements and Community Rights*

The resettlements done in Moma, Moatize and Benga were very problematic due to the lack of dialogue between companies, communities and government (Selemane 2010). When negotiating resettlements and community rights, the main issues concern fundamental human rights and compliance with the country's laws involve six principles:

- *"Avoiding and Minimizing Displacement:* The GoM should ensure that resettlements only occur to promote the general welfare, are reasonable and proportionate, and are done in accordance with national and international human rights law.
- *"Promoting Improved Standard of Living:* An improved standard of living should include ensuring that resettled people will have land-based or employment-based productivity as appropriate, and protecting their rights to adequate housing, food, water, and sanitation.
- *"Promoting on the Rights to Education and Health:* Resettlement should not lead to any deterioration in the affected population's access to affordable health care or education, nor to deterioration in the quality of available health care or education. Resettlement processes should include appropriate coordination with the health and education sectors of the government.
- *"Promoting Public Participation:* Public participation should not be limited to public hearings and consultations, but instead be defined broadly to include meaningful consultation and participation in the design, implementation, and post-move phases of resettlement. Affected persons and communities should give their full and informed consent to the relocation site.
- *"Promoting Environmental Protection and Accountability:* Resettlement of human populations and the expansion of economic activities are often closely linked to environmental impact. There should be an expansion of the current principle on environmental accountability to prioritize the prevention and mitigation of environmental harm as well as accountability. This includes regular monitoring, public information, and the obligation to rehabilitate or provide fair compensation for affected areas.
- *"Respecting the Rights of Indigenous People*s: Indigenous people have rights over the land, territories, and resources they have traditionally owned, occupied, or otherwise used or acquired. Indigenous peoples can only be relocated with their free, prior, and informed consent, after agreement on just and fair compensation of land, property, or livelihood. Where possible, they should be provided with the option of return" (Human Rights Watch 2012).

b. Implementation and Monitoring of Resettlements and the Quick Resolution of Conflicts

Resettlements done by EI companies in Mozambique have been at the center of the discussions about the benefits from this sector. In response, the GoM issued a much criticized decree,[32] including the creation of a technical committee (Article 6).[33] However, given that this committee plays a critical role in monitoring and evaluating resettlement plans and determining the options for compensation, Human Rights Watch (2012) recommends that it include more than one representative from the affected community and, as appropriate, other relevant members such as representatives of civil society and independent experts. Community representatives should include both men and women. In especially sensitive cases, the government should also consider inviting independent resettlement experts to become members of the committee.

Given the importance of integrating adequate plans for resettled communities' access to schools, health care, and jobs, the government should consider adding officials from the relevant sectors, including labor, health, education, and women and social affairs, to the technical committee. At a minimum, the decree should stipulate that the technical committee must consult them regularly (Human Rights Watch 2012).

[32] Regulamento sobre o Processo de Reassentamento Resultante de Actividades Económicas.

[33] The committee comprises two members of the Land Use Planning sector, one from each of the following (the provincial and district governments, the local administration, the public works and housing sector, the agricultural sector), and one from the resettled community. As justified, representatives from other sectors and meritorious specialists or individuals may be invited to participate in the sessions.

C. Recommendations for USAID: Land and other sources of conflict[34]

1. Helping civil society and community organizations monitor and work with CSR projects and activities

USAID could help civil society and community organizations that work with the extractive sector and the affected communities to focus more on understanding, monitoring and advising CSR projects and activities. This would strengthen community input and participation in them and improve tripartite communication so as to ensure appropriate and timely responses to problems that arise or may be anticipated.

The extractive companies' planning, execution and follow-up for the resettlement of people or entire communities needs to be improved and humanized to ensure justice and conformance with the law (Human Rights Watch 2012). Through public awareness programs and promotion of continuous dialogue between the companies' managers and the members of the affected communities, USAID can do much to assist them. This can be done by giving financial and technical support those CSOs and CBOs working on this theme as well as those which would like to but lack capacity to work on resettlement issues.

Technical support can be provided by funding short-term (two weeks; two months, etc) and long-term (one- or two-year) courses. Various options exist for such courses: the Revenue Watch Institute (RWI) delivers courses in New York and in many African countries (Tanzania, Uganda and Ghana). The Norwegian training centre, Petrad, also provides courses in extractive industries governance in Stavanger (Norway) and other places (Ghana, Angola, Zambia, South Africa). Closer to Mozambique is the Durban-based Centre for Civil Society at the University of KwaZulu Natal that trains CSOs and unions about various topics related to the extractive industries. Inside Mozambique, institutions like IESE, OMR and CTV could assist with short-term courses for local organizations.

2. Supporting a legal defense team for community rights and other measures

Communities have huge disadvantages in knowledge and skills when negotiating with the multinational mining and extraction companies, especially considering the very quick pace set by the law for community consultations. To mitigate these disadvantages, a legal defense team for community rights could be formed including, perhaps, the following organizations and people:

- Liga dos Direitos Humanos
- Ordem dos Advogados de Moçambique
- Centro de Integridade Pública
- Justiça Ambiental (JÁ!)
- União Nacional dos Camponeses
- Comissão Arquidiocesana de Justiça e Paz (Catholic Church)
- Conselho Cristão de Moçambique
- Conselho Islâmico (Muslims council)
- Traditional leaders
- Communities' representatives elected by the communities.

With such a composition, a multi-disciplinary team comprising national and local organizations would bring both experience and credibility to the unit's activities.

To complement and publicize the above initiatives discussed requires good communication strategy and implementation involving the media and professional advertisement agencies. This would ensure that *(i)* the idea is correctly and broadly presented to the public, and *(ii)* information about the unit's progress and work is disseminated locally and nationally. Moreover, all

[34] Builds on USAID Land and Conflict Assessment of Nov. 5, 2012.

stakeholders must understand correctly the scope and mandate of each stage of the work by the community legal defense team and the community monitoring unit.

VI. Social and Health Impacts in Regions with EI Activities

A. Likely impact of EI boom on migratory flows

Large scale natural resource extractive activities trigger population movements, attracting people to project areas in search of income opportunities. Mozambique is currently experiencing such population flows to the mining, oil and gas project sites in Tete, Cabo Delgado, Nampula and Inhambane provinces. The consultancy team could not estimate the numbers of people that will flow to these provinces during the next 10 years as no statistical projections have been made yet, and the consultants could not access reliable population updates from the affected regions other than the 2007 census.

People migrating to the EI sites in Mozambique include a) skilled labor, who come from other parts of Mozambique, mostly the southern provinces as well as from neighboring countries and overseas; b) low skilled or non-skilled labor job seekers from all over the country as well as from neighboring countries; and c) business men and women who come to project sites to provide complementary services to the operating companies, their employees and the general public.[35] These latter are either formal or informal. The migratory population is comprised mostly of young males though there are many women too.[36] Many migrants leave their families behind. Many unskilled women migrate to these areas to accept domestic work or join the informal sector, including commercial sex work (IOM 2010).[37]

Although there is no official tracking of population growth in the EI provinces, the provincial and districts governments are feeling the impacts of the rapid growth in the population as a result of the EI and the pressure this puts on already limited public infrastructure. In Tete city, ever-increasing population numbers are putting stress on public services. The municipality is unable to provide adequate water and sanitation services, waste disposal (with many areas having no services), urban planning and zoning services (there is a problem of uncontrolled building), road access (traffic has dramatically increased), health care, and education services. Service provision in outlying regions is even more severely affected (World Bank 2010a).

The population migration is causing rapid urbanization of small towns such as Pemba, Moatize, Topuito, and Palma. This brings adverse economic implications for the poor because the influx of numerous people with a higher purchasing power increases demand for certain products, drives up the cost of living and makes those products unaffordable to the poor. This may result in food insecurity, loss of assets, and negative health impacts. In extreme cases, people may be unable to cope with rising prices and be forced to move out (analogous to the gentrification of certain areas in first world cities).

Though data do not exist, there are some indications as to just how large in-migrations might be. In Topuito locality where the Kenmare heavy sands operations are taking place, the population as a result of in-migration has ballooned from just under 7,000 in 2007 to approximately 21,000 in 2012, according to the Moma district administration. This is a threefold increase in five years in a rural locality that (before the project) had poor access roads, no electricity and no piped water. The locality has been urbanized overnight though without proper urban planning and without adequate infrastructure. The vast majority of migrants settle in the three *bairros* closest to the mine namely Topuito sede, Thibane and Mititicoma (all of which have electricity). As far as sanitation, most

[35] Source: interviews conducted in Tete and Maputo.
[36] Source: interview, Provincial Directorate of Labor, Tete.
[37] MSF counselor; IRCH project manager in Tete. ICRH estimated female commercial sex workers to be 4,415 along the Tete traffic corridor. Current figures are unknown but both ICRS and MSF believe that numbers are increasing as the mining industry grows. ICRH is currently conducting a study that will include an updated situational analysis of the female sex worker population in Tete.

people are using traditional latrines and draw drinking water from boreholes with Afridev pumps. Only Mititicoma is a special case in that it will have public taps installed along the main streets that provide water for the residents. This is because Mititicoma is the resettlement neighborhood, which was originally built by Kenmare for the 145 families resettled from Namalope (a village in the way of the mine path). To date, Mititicoma has over 650 families/households. Government involvement in infrastructure planning or provision of services has been minimal. There were only two first aid posts in the area (one in Topuito and another in Thibane), which are now being closed by the Ministry of Health (MoH) (as are all first aid posts in Mozambique). The Nearest Health Centers *tipo 2* are in Larde (at least 15 km away), Pilivili (over 20 km away) or Micane (50 km away), and the District Rural Hospital in Moma is close to 80 km away. Kenmare Moma Development Association (KMAD) has built a Health Centre outside of Mititicoma, but the provincial directorate of health has not yet provided staff or given authorization to open the health center. Other than that, KMAD sponsors a mobile clinic with a team comprised of a doctor and a dentist who visits all the surrounding health centers (including the first aid posts) at least once a month.

Due to the emerging population of young immigrant males with money, prostitution is growing in these three *bairros*.[38]

The case of Topuito is not unique. Similar trends are happening in other EI hot spots across the country though with differences in numbers and timing. Experiences from other countries show that the dynamics of population influx is determined by several factors that may differ in each case (Table 2). While some projects may cause a population boom in the project area during the first 5 to 10 years and then stabilize, others, especially large scale ones, "may lead to sustained annual population growth rates … between 10% to 15%, leading to large absolute increases in the population" (IFC 2009:21). Table 2 gives examples of such dynamics. In this example, some projects resulted in high population influx to the project region during the first five years, indicating a high demand for labor during the construction phase, while other projects had a higher labor demand during the operation phase. To obtain accurate estimates for Mozambique it will be necessary to assess each project and region individually.

[38] Interview with the KMAD Project.

Table 2. *Population growth over time for selected large mining projects (Source: IFC, Projects and People: A Handbook for Addressing Project-Induced In-Migration- Understanding Project induced in-migration)*

Name	Location	Start date	0 yrs	+ 5 yrs	+ 10 yrs	+ 15 yrs	Overall
Porgera Joint Venture/ Barrick Gold	Porgera, Papua New Guinea	1989	3,000		22,000		7 fold growth in 10 yrs
PT Freeport Indonesia	Papua, Indonesia	1967	2,500		50,000	75,000-100,000	20 fold growth in 10 yrs & 40 fold in 15 yrs
Sadiola Gold Mine	Sadiola Commune, Mali	1996	850	3,850 (+2yrs)	10,000		12 fold in 10 yrs
Kamsar Bauxite	West Guinea	n.d.	300			75,000	250 fold in 15 yrs
Simandou/Rio Tinto Alcan	Guinea	2006	17,835	24,441 (+2yrs)			1.4 fold in five yrs

For general estimates in the mining sector, which has high demand for labor during both the construction and operations phases and an ongoing demand for goods and services, it is estimated that every formal job with the mine creates between three and ten additional jobs in the project area. Thus, a project with a construction phase workforce of 5,000 may create between 15,000 and 50,000 employment opportunities, providing significant opportunities for in-migrants. The Kenmare mining operations in Topuito with a workforce of 450 can, therefore, be estimated to have created up to 4,500 employment opportunities so far. On the other hand, LNG export facilities have much smaller workforces once the construction phase is complete. For example, the planned two-train facility in Palma, Cabo Delgado could have as many as 10,000 workers for construction, but only 300-500 workers once construction is complete.[39]

B. Likely impact of EI boom on health sector

The health "impacts of extraction activities are often considerable, negative and predominantly borne by the weakest segments of society, i.e., poor women and children living and working in close proximity to extractive industry operations" or left behind by migrating spouses (Pfeiffer et al. 2010: iii).[40] One illustrative example among many is the fact that moving a baby from a monogamous to a polygamous household (as may happen due to male labor migration) reduces its health (as indicated by height-for-age), on average, by 5.8%. Child health is, therefore, a decreasing function of the number of wives (Wagner and Rieger 2011). Despite this, the assessment of these impacts is often overlooked in EIs, thus making it unlikely that mitigation activities are incorporated into planning. This disregard of potential health impacts often leads to very high unforeseen costs arising from otherwise preventable negative health outcomes.

[39] Interview, representative, Anadarko Mozambique. 25/1/2013.
[40] See also UNICEF (2012).

In the case of Mozambique, for instance, while most large EI companies conducted environmental impact assessments (EIA), only one (Kenmare) is reported to have conducted a project-level health-impact assessment (HIA) at the time of this analysis, while one other, Anadarko, has an ongoing HIA. The reason given by some of the companies who were interviewed is that HIA is not a requirement by the GoM. It is also not required by financing institutions except for multilaterals. For this reason companies may or may not do it; it is optional. As a result no one has a clear picture of what the impacts of the EI on the health sector are likely to be. There is also no information on who will be most affected. In the absence of HIAs, no specific health action plans (HAPs) are being developed. Furthermore, there is no baseline data showing the existing health situation prior to the EI operations and this means that it will not be easy to compare the situation before and after the EI operations or to identify positive or negative impacts caused by the EI.

As such the Ministry of Health is not adequately planning for the potential impacts because information to facilitate such planning is not available. The consultants viewed some of the MOH national strategic planning documents and none have incorporated an analysis of the EI impacts nor have they included any mitigation measures.[41] Unless this situation is addressed, the costs of the negative health impacts will be a burden on the poor, the marginalized and indigenous peoples in the EI regions.

While the focus of this analysis is on the potential impacts on communicable diseases with particular focus on HIV & AIDS, TB and malaria (HTM), sanitation-related impacts are likely to be high in some areas due to inadequate public infrastructure in the boom towns. For an example in Topuito, most people are using traditional pit latrines while drawing their drinking water from wells. With current population density, in a sandy soils environment, there is a high probability that the drinking water is being contaminated by E. coli and other fecal bacteria. Coliform bacteria can move more than 100 m/day in sandy soils. Poor sanitation costs can be considerable, estimated at US $124 million per year, about 1.2% of national GDP.[42]

1. Impact on malaria, tuberculosis, HIV/AIDS, silicosis and black lung disease

Mozambique's burden of disease is largely a consequence of the high levels of poverty and a result of infectious and communicable diseases such as HIV, AIDS, other STIs, TB and other lung infections, malaria, and diarrheal diseases.[43] This section will focus on the impacts on HIV&AIDS, TB and Malaria (HTM). Reference will also be made to silicosis and black lung disease as they are serious debilitating lung infections, often precursors for tuberculosis. The section begins with background information on the current prevalence statistics, followed by experiences of other African countries that have experienced similar EI booms and high levels of population migration, and finally highlights the potential consequences of unpreparedness on the part of the Mozambican government.

[41] The PESS III is currently being drafted. The PEN II was approved and began implementation in 2009 and is running through 2014, and the TB Strategic plan is still in draft form and the National Malaria Strategy for the next five years has been completed all without adequate incorporation of the EI impacts.
[42] according to a desk study carried out by the Water and Sanitation Program (WSP) in 2012.
[43] WHO and www.MISAU.gov

2. EI impact on HIV & AIDS

Mozambique has a high HIV prevalence of 11.5% (CNCS 2010) and is one of the 10 countries most affected by HIV & AIDS in the world. The highest prevalence rates in the country occur in Maputo (19.8%) and Gaza (25.1%), the two provinces sending the most migrant mine workers to South Africa (CNCS 2010). The EI provinces, namely Tete, Nampula, Cabo Delgado and Inhambane, had prevalence of 7%, 4.6%, 9.4 and 8.6% respectively in 2009. All four were below the national average. Data from ante-natal-care users aged 15 to 49 revealed a national prevalence of 16%, with regional variations of 9% in the north, 18% in the center, and 21% in the south. Preliminary data from the 2009 Epidemiological Surveillance Round estimated that the national HIV prevalence in adults was 15 % (PEN III).

The impact of the disease on the country is huge. In 2008, the INE estimated that AIDS would cause 96,000 deaths in 2009, i.e., 22% of all deaths in the country that year (33,000 men and 42,000 women above the age of 15, and 21,000 children). The INE data also estimates that approximately 510 children younger than 18 years are orphaned each year due to AIDS and 425,000 people above the age of 15 as well as 48,000 children (younger than 15 years), need ARV treatment.

The factors contributing to high HIV prevalence include:

- *Multiple concurrent sexual partners (MCP), low condom use, low male circumcision (particularly in the southern and central provinces), mobility and migration, sexual relations between people of different generations, and transactional relations (PEN III 2010-2014);*
- *Multiple concurrent partner behavior related to two exposure groups: those who have multiple partners, and their stable, monogamous, partners, who are inadvertently part of a sexual network.* This multiple partner behavior is considered to be responsible for nearly 24% to 29% of all new infections in Mozambique (CNCS, UNAIDS). New infections in commercial sex workers (CSWs) contributes to around 2% of the incidence of the total annual incidence, and new infections of the clients of CSWs, to around 7%. Regular partners of clients of sex workers inadvertently become part of the sexual network and nearly 10% of all infections occurred in these regular partners in 2008. This fact means that CSWs, their clients, and their clients' partners were responsible for 19% of new infections in 2008. The provinces of Maputo, Inhambane, Nampula and Cabo Delgado rated highest in terms of multiple partners particularly among men in the 2009 INSIDA report *(Modos de Transmissão do HIV).*
- *Inconsistent and very low and condom use in Mozambique.* Key findings from the National Survey on Prevalence, Behavioral Risks and Information about HIV and AIDS (2009 INSIDA) found that only 8% of women and 16% of men aged 15 to 49 who had sexual intercourse in the last 12 months reported to have used a condom during most recent sex.
- *Low rates of circumcision:* "In 2007 the WHO and the UNAIDS recommended male circumcision as an efficacious intervention for prevention of heterosexually acquired HIV infection in men. It is recommended that countries with generalized HIV epidemics and low prevalence of male circumcision should progressively expand access to safe voluntary medical male circumcision (VMMC) services" (WHO 2012:6). Fourteen countries including Mozambique were identified as priority countries for the circumcision scale up. "These recommendations were made following the review of evidence from three randomized controlled clinical trials, conducted in Kenya, Uganda and South Africa,[44] that showed that male circumcision reduced the risk of heterosexually acquired HIV infection in men by about 60%" (WHO 2012:6). Following this, Mozambique launched an accelerated plan for HIV prevention and included male circumcision among key interventions but by 2011 the country had achieved less than 5% of its circumcision targets (UNAIDS report 2011).

[44] For the original studies, see Auvert et al. (2005); Bailey et al. (2007); and Gray et al. (2007).

- *Mobility and migration.* "In several parts of the world, geographic mobility, migration and widespread population displacement have been identified as significant risk factors in the transmission of HIV and TB. The argument that migration is a risk factor for HIV and other STDs rests on the assumption that migrants are more likely than non-migrants to have additional sexual partners" (Lurie M et al. 1997). Men who have both commercial and non-commercial sex partners play a major role in bringing HIV infection into the general population.

  > A 1995 study by Nunn et al. on HIV and migration in Uganda showed a strong correlation between HIV infection and migration status. The lowest rates of HIV were found in those people whose place of residence was more permanent. People who had moved within the last five years, for example, were three times more likely to be infected with HIV than those whose residence had been stable for more than ten years. The lowest infection rates were among those who had been living for the longest time in the same place. The study also documented that people who migrate are likely to have more sexual partners than non-migrants (Lurie et al. 1997:19).

  In the early 1990s, various researchers demonstrated the positive correlation between migration and the spread of HIV in four African countries (Table 3).

Mozambique conforms to these international trends. The highest prevalence of HIV in pregnant women is found in high mobility corridors (CNCS 2009) with the commercial transport corridors in the region and migration to the mining industry in South Africa playing a facilitating role (Figure 1). The increasing in-migration movements to and from the EI regions (circular migration)[45] coupled with low circumcision rates in high-prevalence regions will potentially increase prevalence rates substantially in parts of the country that were previously low in prevalence, while those already high in prevalence will likely get worse. In South Africa, circular migration to and from mines contributed to HIV and tuberculosis being spread in the general population within the country but also in the neighboring countries from where mining labor is recruited (including Mozambique). The burden of the disease in Mozambique (Table 3) was nearly doubled in the south of the country while migration corridors doubled it again.

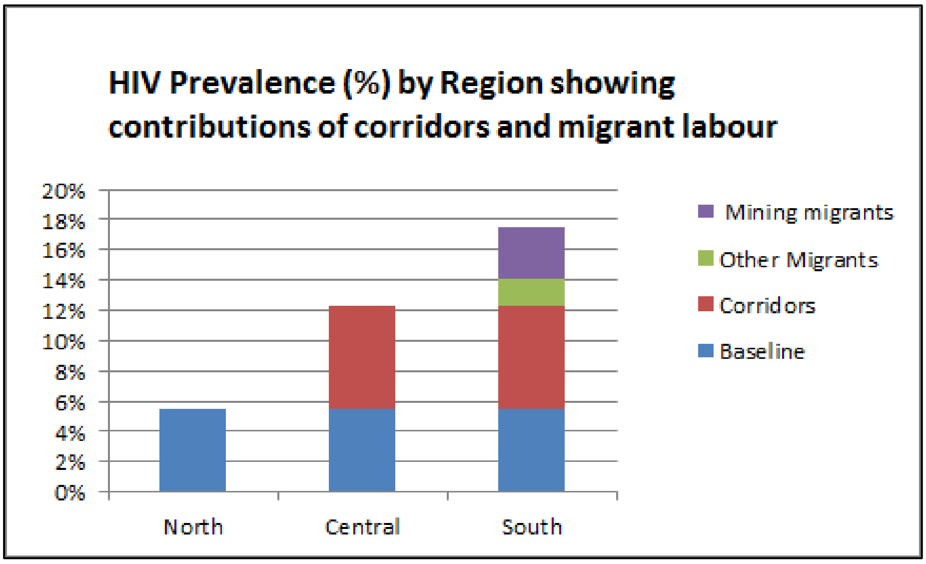
[45] Circular migrants are those who maintain contact with their families in their place of origin. Circular migration is observed with many migrant workers in the EI provinces coming mostly from Maputo, Gaza, and Inhambane provinces while leaving their families behind.

Table 3. *Positive correlation of migration and on the spread of HIV and other STDs*

Location, year (authors)	Population	Main findings
Uganda, 1995 (Nunn et al.)	Rural Ugandan residents and migrants	People who moved within last three years were three times more likely to be infected with HIV than those who had stable residence for 10 years
Senegal, 1993 (Pison et al.)	Seasonal migrants	HIV mostly spreads first to men who became infected during seasonal migration, then to their rural partners when they returned
Zimbabwe, 1990 (Basset et al.)	Urban male factory workers	HIV+ men more likely to live apart from their wives and to have multiple sex partners
South Africa, 1991 (Jochelson, Mothibeli and Leger)	Urban male mine workers	Migration disrupts family life and creates a market for prostitution in mining towns
South Africa, 1992 (Abdool Karim et al.)	Rural KwaZulu/Natal residents and migrants	HIV is three times more likely among those who had recently changed their place of residence
Source: Lurie, M. et. al. 1997.		

Source: Rod Bennett Hexor Ltd. (2012).

Figure 1. *Burden of HIV per region*



Gender inequalities in Mozambique mean that women are frequently constrained from having access to resources and opportunities, and their economic dependence to men favors domestic and gender based violence. This increases women's vulnerability and risk of HIV infection. *Medicins Sans Frontiers* reports that gender inequalities, apart from driving some women to commercial sex work, also contributes to female CSWs' inability to negotiate protected sex as some clients do not want to use condoms and offer to pay more for unprotected sex. Out of desperation, some female CSWs agree to these risky practices, thus exposing themselves to HIV infection. Anecdotal evidence from MSF also showed a sero-conversion of about 12% p.a. among 300 Zimbabwean female CSWs that the MSF program reached between April 2011 and April 2012. "Additionally, where families may have been accustomed to earning incomes in-kind, sudden cash incomes may lead to family tensions over how the money is spent, often leading to increased domestic violence" (Eftimie, Heller and Strongman 2009:14).

a. Economic impacts of HIV

HIV/AIDS typically affects individuals between the ages of 15 and 49, who represent the most economically productive population. Direct costs to businesses include increased costs of health insurance, employment benefits, funeral and pension costs, recruitment and training costs. Other effects include increased absenteeism, high rates of employee turnover, low employee morale, and loss of skill and experience, all of which contributes to decreased productivity and profitability. The impact on the greater economy and the future workforce is also significant as the loss of children to the disease results in a loss of future potential and human capital development. Furthermore, orphaned children are more likely to become engaged in child labor and are without opportunities for the necessary skill and educational development needed to become fully productive members of the workforce (ERIS 2008).

An increase in HIV prevalence also contributes to the reduction of life expectancy at birth, and this in turn contributes to reductions in the Human Development Index (HDI). According to UNDP reports, gains in the HDI (of 0.402, 0.414 and 0.428, in each of 2002, 2003 and 2004) have been lost since 2005 (HDI = 0.384), essentially due to the heavy burden of AIDS (CNCS 2010).

The Global Business Coalition on HIV/AIDS, Tuberculosis and Malaria estimates that for countries with an HIV infection rate of over 10% such as Mozambique, the spread of HIV/AIDS has resulted in at least a 2% to 3% loss in GDP. In Mozambique, based on 2011 GDP which was $12.80 billion (World Bank 2011), the national financial loss due to HIV was between $256 million and $384 million for that year.

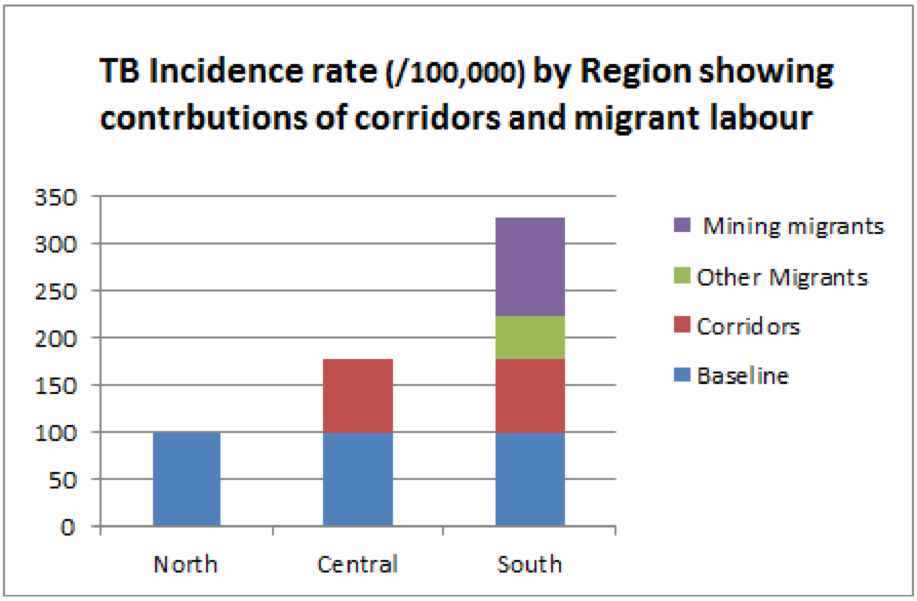
b. EI Impact on TB

Mozambique is classified by the WHO as a TB High-Burdened country. The country is among the top 22 countries that jointly contribute to 8% of the world's TB burden, currently holding the 11th position.[46] The incidence of TB in 2010 was 544/100,000 (WHO 2012), exceeding the pre-requisite of a "health emergency" defined by WHO as 250 cases per 100,000 inhabitants. Due to the high HIV prevalence, the country is also burdened with a high rate of HIV/TB co-infection. In 2011, of the approximately 47,452 reported cases of TB, about 63% were HIV-positive, which represents the highest rate of TB / HIV co-infection in the world (MISAU 2012). The estimated mortality rate for co-infected patients was 82/100,000 inhabitants in 2009 (WHO 2009).

The health management information systems (HMIS) data for Gaza and Maputo provinces show levels of HIV associated TB of up to 80%, reinforcing the extent to which HIV is a principle driver of TB in Mozambique. Again, the high percentage of TB and HIV/TB co-infection cases in the south of the country is associated to the high level of migrant mine workers from this part of the country to the South African mines. Like in the case of HIV&AIDS, the incidence of TB is lower in the north, higher in the central provinces and even higher in the south provinces where migrant workers to the South African gold mines are recruited. TB incidence per 100,000 increases from 99.6 in the North to 178.1 in the centre to 327.0 in the South (Figure 2). Recent outbreaks in South Africa of multi-drug resistant TB (MDR)[47] further increase the public health challenge for Mozambique (Bennet 2012). The potential spread of TB from the south of Mozambique to the center and to the north is foreseeable as migration patterns change direction from south to north (to the EI regions) instead of the customary north to south as Mozambican migrants move up country.

[46] Data obtained from the draft National TB Program Strategy, 2013- 2017.
[47] Extensively resistant strains for treatment, involves two or more years of expensive and intensive therapy.

Figure 2. *Burden of TB by region*



Source: Rod Bennett Hexor Ltd (2012)

c. EI Impact on Malaria

Malaria is endemic in Mozambique. It is also the leading cause of health problems, accounting for over 40% of all outpatient visits and up to 60% of patients admitted to the pediatric wards. Malaria is also the leading cause of mortality in hospitals in Mozambique, i.e. almost 30% of all deaths. The estimated prevalence in the age group two to nine years of age ranges from 40% to 80%, with 90% of children under five years of age infected by malaria parasites in some areas. Malaria is also a major problem affecting pregnant women in rural areas. Approximately 20% of pregnant women are infected with the parasite, the primigravida being the most affected with a prevalence rate of 31%.[48]

According to the National Malaria Indicator Survey of 2007, the provinces with the highest prevalence rates of the parasite (P. falciparum) were Zambezia (50.3%) and Nampula (60.4%) (Mabunda et al. 2007). These are also the country's most populous provinces. Tete was at 42.2% and Cabo Delgado at 36.8% but with the expected population rise in these provinces as a result of the EIs, malaria prevalence will also potentially rise. This is in part caused by the fact that higher population densities mean higher malaria rates, as mosquitoes find it easier to encounter multiple hosts.

d. Economic impacts of malaria

Malaria is bad for business. It is a major cause of absenteeism thus responsible for decreased productivity and increased health care spending. A 2006 report found that nearly three-quarters of companies in the Africa region reported that malaria was negatively affecting their business. Malaria infection in company employees can impact the local economy because the overall labor force is weakened by sickness and absenteeism, savings are lost, commerce is slowed, investments and tax revenues are reduced and public health budgets are diminished. At household level, an analysis conducted by Castillo-Riquelme, McIntyre and Barnes (2008) found that out-of-pocket household expenditure per malaria episode averaged $6.50 in Mozambique with 32% to 34% of households incurring catastrophic payments[49] for malaria episodes.

[48] www.MISAU.gov

[49] out-of-pocket payments for healthcare expenses that are large enough relative to the resources available to the household to disrupt the family's living standard.

3. Capacity and deficiencies of the health infrastructure

Poor access to primary healthcare facilities and inadequate capacity for disease prevention has made it difficult for government to deal effectively with the health situation. Much of the health infrastructure of Mozambique was destroyed during the long civil war. Only 36% of people in the country have access to a health facility within 30 minutes of their homes with over 50% of the population living more than 15 km from a health facility and about 30% not able to access health services at all (PARPA II). The country also has a severe shortage of trained health professionals. The ratio of physicians is less than 0.5 per 10,000 people. The EI provinces (Nampula, Tete, Cabo Delgado, and Inhambane) physician ratios are at 1.8, 2.3, 1.8, and 2.2 per 100,000 people, respectively (MISAU 2010). Health-sector wage levels are also a problem, with health workers underpaid and no great incentives provided for working in more rural locations where unfilled posts remain a problem (German Foundation for World Population & Action for Global Health 2011). A study conducted by the Centre for Public Integrity (CIP) in 2006[50] indicated that low salaries for health staff contribute to high health sector corruption in the country which leads to poor service delivery to those who cannot afford to pay bribes. In addition, more than 60% of health facilities lack water and electricity.

Government also lacks capacity to monitor private company compliance of laws and regulations. This is evident in the area of company health and safety. Corporate health, safety and labor issues are mainly regulated by the Labor Law (Law No. 23/2007, of 1 August 2007) and the Regulations on Health and Safety for Mining Activity. Though the Ministry of Labor is the main regulator, compliance is monitored by a multi-sectoral team that includes elements from the health ministry.[51] None of the relevant provincial departments have capacity (HR quantities, skills, and resources such as monitoring tools and cars) to monitor company compliance. Companies who must provide regular government performance audit reports to financing institutions (Kenmare, for example, must provide such reports to its backers) report that they have to ask the relevant national department several times before an audit is actually done, often much later than the contractually-defined timeframes. Even then, the company has to finance all the costs including per-diem expenses or else the audit will not happen.[52]

Ensuring that resources are provided to resolve these issues has been a major challenge given that only 8% of the national budget is allocated to health spending, and external resources or donor support accounted for 70% of the state budget for health in 2010 (MoH Department of Planning and Cooperation 2010). Eight percent is far from reaching the Abuja Declaration target of 15% which the GoM signed, and the total expenditure per capita at US$ 23 in 2009 is lagging far behind the US$ 44 minimum recommended by the WHO.[53]

The EI and its large number of highly paid expatriates is stimulating the growth of the private for-profit health sector. While the private sector is welcome and needed in order to complement public sector healthcare provision, the growth brings with it fundamental problems that needs to be addressed. In Mozambique, most public-sector doctors also work at private clinics; according to the 2006 CIP study, this makes them chronically tired which leads to poor quality service for the public sector patients. The study links the deterioration of public sector health care to a 1998 government decision to allow public-sector doctors to also work in the private sector. “By 10 am, the majority of doctors have already left the city’s public hospitals for their private-sector jobs” (*IRIN News* 2011:29). In addition to this loss of productivity in the public sector, costly health interventions (for private sector) are performed within the public health facilities without full cost-recovery, leading to a situation where the public sector systematically subsidizes the private sector. Public policies should be designed such that public sector money is used to fund or subsidize health services to those who cannot afford while ensuring that those with higher incomes and can afford paying for

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[50] www.cip.org.mz/article.asp?lang=&sub=publ&docno=42

[51] Interviews from interviews with the government provincial departments of health and the department of labor.

[52] Interview with Kenmare senior manager.

[53] WHO *Global Health Expenditure Atlas*, 2009 data.

private sector services pay market prices. The private sector should carry the full costs of its operations and public hospitals should do full cost recovery for privately-referred patients.

The MoH is, however, making notable progress leading, coordinating and monitoring national programs for HIV & AIDS, TB and malaria. It does this through defining national visions and strategies to guide implementation by all stakeholders and monitoring progress (Appendix 6, p. 78).

C. What the EI companies are doing to cope with the health impacts of the boom

The consulting team could not get full details of the companies' activities in health. While all that were contacted reported that they are doing some health activities within the corporate social responsibility funds, the scope of their work seemed to vary with each company's policies and willingness as there is presently no guidance from the government as to how much (at minimum) companies should invest in CSR and how much of that should be invested into averting and mitigating the health impacts brought about by their operations. The fundamental question of mitigation of health impacts as a cost of doing business (not as a component of CSR but rather just as environmental impacts are mitigated) is not even posed, let alone addressed.

Most of the large EI companies have conducted environmental impact assessments but only two among those interviewed (Kenmare and Anadarko) reported conducting a project-level HIA. Adequate planning to avert or mitigate the negative impacts or enhance good ones is therefore limited. Of those interviewed, two companies reported (Vale, Rio Tinto) to have carried out social impacts assessment (SIA) but consultants were unable to access reports. The SIAs, they said, contain sections on health.

All companies conduct medical tests for all employees prior to contracting. These tests include testing for TB. A key informant[54] in Rio Tinto reported that once employed, testing for any illness is offered as part of the healthcare package, i.e., if an employee goes to the clinic or hospital, they may undergo certain tests as required by clinicians.

The interviewed companies also provide (to varying degrees) some health assistance to their employees and immediate family members. Some (e.g., Vale and Rio Tinto) do this through health insurance policies that cater for injuries, short-term and long-term illnesses, and death, while others (e.g., Kenmare) are providing healthcare only through their company clinic and cash refunds for external healthcare services, but refer cases with long debilitating illnesses to government social security program. Apparently, inconsistencies or different interpretations exist about what the law regulates. For example, the GoM has prescribed mandatory HIV awareness-raising programming and medical assistance for the 250 companies with mining licenses operating in Tete province (IOM 2012; Lei 5/2002[55]). On this issue, both Rio Tinto and Vale reported that they provide HIV & AIDS awareness and prevention programs but the consultants did not find any condoms in the bathrooms that they visited. Also, the Kenmare system for employee healthcare seems to be encouraging companies to transfer the burden of long-term disease (even if caused by company operations) to the government. All interviewed companies reported having first aid clinics as required by the law but these clinics are not available to members of surrounding communities. In Rio Tinto, the employees' family members are covered under the employees' insurance policy.[56]

In terms of legislation, and in addition to Law 5/2002 and the labor law, the Mining Health and Safety Regulation of 2006 mandates companies to: *(i)* provide annual examinations for employees that are exposed to dust and silica, and thus susceptible to pneumoconiosis, and; *(ii)* promote and encourage the use of preventive measures against malaria and similar diseases, by making available medicines and useful instructions to the employees. The consultants were unable to verify whether these conditions are met by the companies because the staff responsible for those sections needed a lengthy authorization process at different senior levels to provide such information, and the consultants did not have enough time to visit more than a small sample of companies. However, the

[54] President of the workers union, who has worked for the company for four years.
[55] This law mandates that employers should provide HIV education and advice.
[56] Interview with the worker's union president.

president of the workers syndicate in Rio Tinto mentioned that, about a year ago, Rio Tinto communicated an internal policy that mandates that all employees working in and around the mine be tested annually for lung infections. The policy is, however, not yet being implemented.

A full evaluation of existing company's health programs is necessary and could be incorporated into the comprehensive national HIA mentioned above in order to fully understand current practice and identify gaps. The inconsistencies in practice among companies may be a result of different interpretations of what is legislated, perhaps due to lack of guidance on the part of government on how to turn legislation to action or they could be a result of poor monitoring of compliance by government. There are also gaps in legislation when it comes to company's responsibilities for providing healthcare services to surrounding communities. The law does not oblige the companies to do so. Existing legislation focuses on healthcare provision for employees and their families. Table 4 summarizes the companies' health programs (as per the information that the consultants were able to obtain from key informants).

On the positive side, although the consultancy team found few examples of documented good practice, some companies such as MOZAL and Kenmare have implemented promising initiatives that can be used to influence policy and practice among all companies in the country but also can help shape policy development around effective engagement of the private sector in healthcare programs. These initiatives including those documented from other countries are summarized in **Appendix 7** on p. 80.

Table 4. *Health services provided by a sample of EI companies*

Scope	Service	Kenmare	Vale	Rio Tinto
Provides or will provide service or insurance only for work-related (X) or any (Y) health problems	Health Clinic	Y	Y	Y
	Short-term health insurance	Y	Y	Y
	Long-term health insurance	-	Y	Y
	Accident insurance	?	Y	Y
	Health insurance to workers' families	-	Y	Y
Tests employees in company clinic for (Y/N)	TB	Y	Y	Y
	HIV	-	-	-
	Malaria			
	STDs			
Has such prevention and treatment programs for workers (X) and the local community (Y)	TB	-	?	?
	HIV	XY	X	X
	Malaria	XY	?	
	STDs	XY	?	?

D. Recommendations for USAID: Social and health issues

To assist the government and private sectors to mitigate the impact that the boom in the extractive industries has on the health of workers and the general community, USAID could:

- fund an **HTM Best Practices Initiative** based on public-private partnerships in the EI provinces to increase provincial capacity for preventing the spread of HIV & AIDS, tuberculosis, and malaria (HTM) (see p. 95);[57]
- support MoH to develop, implement and monitor a Health Action Plan in at least three provinces taking into account the full range of health impacts, including the anticipated increases in HIV/AIDS and tuberculosis rates and the problems with the provision of clean water and sanitation;
- support MoH (technical and financial support) to execute and disseminate a National Health Impact Assessment and its corollary, a Population Migration Dynamics Projection, especially considering the impact the investments in the extractive industries;
- provide technical assistance to develop key health indicators to measure and track over time the extent to which extractive industries' activities contribute to human development;
- Support MoH and EITI partners to negotiate the integration of health issues and measures into governance mechanisms used for EI activities.
- Support development and implementation of an EI gender action plan (EI-GAP) involving all relevant sectors to scale up the MISAU-led multi-sectoral integrated response program for the prevention of gender-based violence and the care and treatment the victims in three EI provinces, especially the most affected districts.

VII. Main Recommendations for USAID: A Brief Summary

A. Role of Government and Civil Society

1. Civil society's capabilities for analysis, advocacy and communication

To enhance civil society's capabilities for analysis, advocacy and communication, USAID could train key activists, fund the Civil Society Platform on Natural Resource and Extractive Industries, allocate financial and technical support to the media, translate into local languages all legal documents pertinent to the extractive industries, fund a training session for ten journalists committed to covering and investigating the extractive industries, and fund CSOs to conduct advocacy work, organize innovative and wide-scale public awareness campaigns, and monitor the budget and track fiscal transfers to provinces and communities. The latter work would also entail analyzing the tax regime to spot loopholes for tax evasion and capital flight.

2. Human-Resource Planning

The Ministry of Education recognizes that it needs rolling five- and ten-year projections of skills requirements and availabilities at a level sufficiently detailed to permit it—together with private and public training and educational institutions—to plan and initiate courses to create appropriate skills in adequate numbers to respond to mining and other sectors. Such projections would also better inform its policies to encourage and enable more women to enter professions where they are severely underrepresented.

B. Transparency

1. Enhancing EITI and other transparency efforts

To enhance EITI and other transparency efforts, USAID could:

[57] These might include *(i)* financing of local Community Health Promoters (APES) for malaria control, *(ii)* bed nets and indoor spraying, *(iii)* HIV and TB testing campaigns among workers and their families, *(iv)* provision of clean water in EI affected areas, and *(v)* wide-scale circumcision campaigns.

- contribute to common fund after negotiating and receiving guarantees that the OGE would cover EITI costs with a clear mandate to go beyond the basic standards;
- fund the Budget National Directorate to publish In-Year-Reports documenting (i) all payments (including those channeled to entities like the National Petroleum Institute) from the extractive companies and (ii) sub-national funds allocated to and spent in the provinces; and
- finance the publication of MIREM's database, via the Internet, for license requests and approvals;

2. Aiding Mozambican civil society to raise awareness about EITI

- USAID could create a project, lasting three, four or five years to ensure creation of technical capacity and bring many CSOs to include EITI on their agendas to create wide-scale public awareness and avid discussion about EITI, throughout the country but especially in the provinces with the most extractive industries. A big focus would be to empower CSOs to follow the money through budget monitoring and expenditure tracking right down to the provincial and district-levels and to engage traditional leaders and the community radios to inform and motivate the people about the issues.

C. Resettlement and Other Potential Conflicts

To help avert or mitigate conflicts, USAID could:

- support civil society and community organizations that work with the extractive sector and the affected communities to focus more on understanding, monitoring and advising CSR projects and activities; and
- fund a mobile, fast-reaction legal team for the defense of community rights, especially during and after negotiations with mining companies.

D. Social and Health Impacts

To assist the government and private sectors to mitigate the impact that the boom in the extractive industries has on the health of workers and the general community, USAID could fund an HTM Best Practices Initiative, support the development, implementation and monitoring of a Health Action Plan in three provinces; finance a National Health Impact Assessment and, its corollary, a Population Migration Dynamics Projection, provide technical assistance to develop key health indicators to measure the extractive industries' impact over time, support the integration of health issues and measures into governance mechanisms used for EI activities, and support development and implementation of an EI action plan for the prevention of gender-based violence and the care and treatment the victims in three EI provinces.

VIII. Appendices

Appendix 1. Historical and comparative analysis of resource booms efforts to combat corruption

A. Nature of the resource boom

Botswana: This small (in population) country just to the north of South Africa achieved independence in 1966 in a state of nearly absolute under-development, without a single industrial facility except a slaughterhouse (Tregenna 2006). However, this was partially because Botswana had not experienced strong colonial dominance: its society and economy were little changed at independence, and in particular, resources had not been exploited nor had the colonizer (Great Britain) created an export-driven economy for the benefit of the colonizers. Nor did Botswana experience an independence war or a post-independence civil war. All this left the country fairly well-positioned to accept donor money from the West and foreign investment (Tregenna 2006).

The boom in Botswana began with its agreement with the South African company De Beers to mine diamonds, which commenced at the Orapa diamond mine in 1971. A company jointly owned by the government of Botswana (GoB) and De Beers was created, with an initial 15% share for the GoB but this was renegotiated in 1975 to give the GoB a 50% share. Since the GoB also collects royalties and corporate taxes, its total share of revenues from diamond mining is in between 75% to 80% of total profits (Tregenna 2006:14). Three additional diamond mines opened (1975, 1982, and 2003), as well as a coal mine (1973), and the company (now called Debswana) has a monopoly on all diamond mining in the country.

These mining activities had a big effect on the economy. From 1966 to 2004, average real GDP growth was 9.9%, with particularly high growth when mining started: 15.4% from 1970 to 1979 (Tregenna 2006). In the 1990s and early 2000s, Botswana's natural resource exports averaged between $1.5 billion and $2 billion per year (Iimi 2007). This is in the context of a country with a small population – about 600,000 when the resource boom began and about two million today. Hence, revenues per capita have always been high and, given the small population, the mining sector could still be a significant, though not dominant, source of employment. Debswana is the largest single employer after the public sector. Per capita GDP at purchasing power parity (PPP) reached $16,800 in 2012 making the country a solid middle-income country and the second or third-richest per capita in Africa.[58]

Nigeria: Nigeria is Africa's largest country in population, and, although cumulative revenues from oil have been massive, the country has not benefitted greatly from the revenues. The country had to deal with an oil export industry, albeit on a small scale, from the moment of independence in 1960, exports having commenced in 1958 when Nigeria was still a British colony. Although Nigeria now has offshore oil production, production during the first couple of decades was onshore or in shallow coastal waters, in the environmentally-sensitive and ethnically-complex Niger Delta region. The Anglo-Dutch company, Shell, had started exports but, in the decade after independence, three American and one other European oil company began to invest in the newly-independent country, and production grew rapidly. Within a decade of independence, production had reached over one million barrels per day (bbl/d), from just 17,000 bbl/d in 1960 (Udosen 2009:41). In 1971, Nigeria joined the Organization of Petroleum Exporting Countries (OPEC), and the cartel was successful in raising world prices crude oil prices and revenue from crude oil production increased from $167 million in 1970 to $510 million in 1971 (Udosen 2009:41). The dominance of crude oil in Nigeria's economy is illustrated by the increasing percentage of export values that crude oil represented. In 1960, when Nigeria exported mostly agricultural products (71% of the total), crude oil was 2.7% of the value of exports; by 1970 crude oil represented well over 50% of the value of exports and by 1974, the value of crude oil exports were over 90% of exports, a level that they have maintained since that year Udosen 2009:40).[59] Since 1980, crude oil production has varied between 2 million

[58] www.cia.gov/library/publications/the-world-factbook

[59] In recent years, natural gas exports have become important so it would only be accurate to say that hydrocarbon

bbl/d and 2.5 million bbl/d, though oil prices have varied enormously and Nigeria's population has exploded from 57 million in 1970 to over 170 million in 2012.

Nigeria's economy has grown enormously since the early 1960s, but much less strongly on a per capita basis. Nevertheless, Nigeria has the third-largest economy in Africa, and oil, or even oil and gas, do not represent the majority of the economy. Nigeria's economy grew strongly in the 1960s except during the Biafran War (1967-1969), with an average for the decade of 2.85% because of severe retrenchment of the economy during the war. It was really the 1970s, during which expanding oil production, high world oil prices, and the end of the civil conflict in Nigeria coincided. Annual GDP growth averaged 11.8% for 1970-1974, taking GDP from $6.6 billion (in current US$) in 1969 to $24.8 billion in 1974. GDP per capita (in current US$) went from $118 to $392 in that same period.[60] But, growth was uneven and the sustained oil boom was already over.

Indeed, as oil prices collapsed in the early 1980s, Nigeria experienced years of negative growth and for the entire 1980s, the annual average was less than 1%. Nigeria's population continued to increase rapidly, so that oil revenues per capita are much lower than 1980 whether the price (in real terms) is the same or much higher than that year. The real issue is not so much the revenues per capita, which given Nigeria' huge population, particularly today, are bound to be low even if production doubled, but that a large portion of the population appears to have received no benefit at all. Approximately 84% of Nigeria's population lives in conditions of absolute poverty (less than $2 per day) as of 2010, an increase compared to 1986, when that figure was 77%. Using constant year 2000 U.S. dollar per capita income figures, the failure to capture benefit from the boom is clear. This figure was $432 in 1974, and did not surpass that figure again until 2005 (at $443).[61]

Linkages have been unsuccessful, with the refining sector unable to provide sufficient products for the country, so that while crude oil is exported, petroleum products are imported. Nigeria has had only partial success monetizing its natural gas, with the successful construction of an LNG export facility and a gas export pipeline to neighboring West African countries. However, Nigeria has the world's largest or second-largest flaring of natural gas, representing an enormous waste: 536 billion cubic feet in 2010 according to the U.S. NOAA (U.S.EIA). This is about one-third of all gas produced and represents $2.5 billion in lost revenue, according to state oil company, the Nigerian National Petroleum Corporation (U.S.EIA Nigeria). That amount of gas could be used in power plants to provide billions of kilowatt hours of electricity. Nigeria produces less electricity (24.872 billion kilowatt hours) for its 160 million people than the Republic of Ireland does (26.834 billion kilowatt hours) for a population of less than five million people (EIA data for 2010). Meanwhile, the lack of electrical power inhibits economic development in the country and reduces basic living standards.

The hydrocarbons, as well as their revenues, have not been effectively used to raise living standards, not only in terms of electricity, but also health, education, and basic consumption. Unlike the few mines in Botswana, Nigeria's onshore oil and gas production has had a large negative impact on numerous agricultural and fishing communities in the Niger Delta. There has been large-scale environmental degradation affecting people's health and ability to use the land for crops and the rivers and creeks for drinking water and fishing. This has been exacerbated by accidents and sabotage/theft that create large spills, and the aforementioned flaring, which creates large no-go areas and light pollution. Finally, anger at damage caused to the region as well as at the lack of benefit from oil and gas revenues despite bearing the brunt of the costs has bred various violent insurgencies, kidnapping gangs, and weak rule of law. Large quantities of oil are stolen (so-called "bunkering" which represents between 5% and 10% of total production),[62] mostly through high-level corruption using barges and tankers, though smaller quantities are taken by tapping pipelines. It is difficult to quantify the cumulative costs of all of these problems in the Niger Delta region, but they are in the tens of billions of dollars – intentional damage to pipelines alone in the years 2000

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exports represent over 90% of the value of exports.

[60] World Bank data, http://databank.worldbank.org/data/home.aspx

[61] World Bank data.

[62] See discussion on page 51.

through 2007 cost $1.28 billion (*Daily Sun* (Nigeria) 28 May 2008). Perhaps most damaging of all for Nigeria as a whole has been the development of a rentier state, wherein much effort is put into obtaining a portion of the resource revenues rather than expanding the economy. Former President Umaru Yar'Adua described this problem as going beyond that to "the evolvement of a culture of disrespect of the rule of law which spawned unbridled corruption, endemic crime, violence, infrastructural deficit, and a general malaise in the polity over the years" (*This Day* (Nigeria) 28 May 2008).

Angola: Angola has many similarities in terms of its resource boom to Nigeria, though independence came later, and a much larger proportion of Angola's oil production is offshore. Angola has a much smaller population than that of Nigeria, so even with somewhat lower production levels, revenues per capita are much higher. Also, while mining is a small sector in Nigeria, Angola has had large revenues from both diamonds and oil.

Oil was discovered in 1955, onshore, when the area was a Portuguese colony, and the Portuguese government worked to develop the colony's onshore development until, by 1973, production had reached 173,000 bbl/d (Shaxson 2009:59). By that time, Portugal was fighting an independence movement and oil had become the colony's largest export in value. Although independence was achieved in 1975, the country was immediately plunged into a civil war and a Marxist-Leninist government took power. Angola's oil sector has some notable characteristics that distinguish the country from Nigeria but also from Mozambique, even though, till recently, Mozambique did not have a hydrocarbons industry. Angola, as in Mozambique, expropriated the property of Portuguese colonialists, and expelled white Portuguese residents, creating massive shortages of skilled labor in both newly-independent countries. But, Angola's oil sector was a very important exception to this. Gulf Oil of the United States, which had quit the country on independence and the start of the civil war, was pressured by Nigeria (by threat of expropriation) to return to Angola and the new government, despite its ideology gave Gulf assurances of standard capitalist business practices (de Oliveira 2007). Soon, other American and European companies returned, and the oil sector was not wholly nationalized. The one company that was nationalized was the ANGOL, the Angolan subsidiary of Portugal's SACOR. However, this company, which would become Sonangol, was allowed to keep all of its Portuguese employees (de Oliveira 2007). Thus, technical knowledge was maintained, but now these Portuguese employees worked for the Angolan state oil company. So, Angola maintained high-skilled labor and foreign investment in the country, after independence. And, unlike Nigeria, Angola was able to start its state oil company with in-place highly competent and skilled management and workers.

Despite the civil war (which, was low intensity), crude oil production expanded steadily since the sector was insulated from the predominant government ideology via the state oil company Sonangol, and production shifted to shallow offshore waters in the 1980s, also insulated from the conflict. Angola did not have a 1970s oil boom like Nigeria, but, as production gradually increased, the oil revenues funded the government's side of the civil war.[63]

Production went from 150,000 bbl/d in 1980 to 500,000 bbl/d in 1991 (U.S. EIA). The rebel side, UNITA, controlled areas of diamond mining and sold diamonds from alluvial mining on to international black markets to help fund their war efforts.[64] There was a brief period of peace in 1991-1992, but in the 1990s, UNITA sold between $3 billion and $4 billion in diamonds to finance its operations, and international diamond giant De Beers was involved in illegal diamond sales (Fowler 2000). Meanwhile, crude oil production, whose revenues went to the government, expanded to nearly 750,000 bbl/d by 2001 (U.S. EIA), though low oil prices in the late 1990s

[63] This created bizarre situations, such as Cuban soldiers sent to help the Marxist government to protect Chevron oil operations, while U.S.-supported UNITA rebels intended to attack these oil operations.

[64] These are so-called "blood diamonds." It should be noted that the smaller scale of mining in Angola, often artisanal, compared to a very few large open-pits with capital-intensive techniques in Botswana, made it easier to loot diamonds in Angola and sell them onto the black market. However, in addition to artisanal mining, international mining companies were also involved in producing and trading diamonds in rebel-held territory.

indicated reduced revenues despite production growth. In addition to the civil war between UNITA and the government, the Cabinda exclave, which had a great deal of onshore, and later, offshore oil production, had a guerilla group fighting for its independence from the rest of Angola to make a potential new state that would be viable in large part because of its oil wealth. Fighting did not end until 2006, and a smaller splinter group continues with occasional violent attacks.

The Angolan Civil War ended in 2002 some months after the death of UNITA leader Jonas Savimbi, but oil and diamonds had not funded an economic boom, but rather, war and destruction. Since the end of the civil war, however, there has been a boom, though this does not mean that the benefits of the boom were widely spread amongst Angola's population.[65]

In the late 1990s and 2000s, technological advances meant that large international oil companies were able to drill for crude oil in much deeper water than previously possible. Deep waters off the coast of Angola have huge reserves, and the reduced political risk after the end of the civil war further encouraged investment.[66] With large international oil company investments, production nearly doubled by 2006 (compared to 2001) and reached a peak of 1.98 million bbl/d by 2008 (U.S. EIA). Angola joined OPEC in 2006 as it became a major world exporter in that decade. In 2011, oil export revenues were $68.2 billion according to the U.S. EIA. The government's after-cost oil revenues take (through all avenues, direct and indirect) is estimated to be at 85%, indicating nominal government oil revenues of about $50 billion in 2011 (calculated from data by Shaxson 2009 and U.S. EIA). Angola's diamond exports have been around $1 billion per year in recent years, though figures are opaque, and large-scale diamond smuggling still occurs (Shaxson 2009). In total value, nearly all of exports are either diamonds or petroleum, with over 90% being petroleum. In the second quarter of 2013, Angola is expected to begin exporting liquefied natural gas, which will further increase its hydrocarbon revenues. Angola is a mineral-resources dependent state *par excellence*.

Papua New Guinea: Papua New Guinea (PNG) has not experienced an EI boom in absolute terms such as that of the massive oil exporters in the previous two examples, but in relation to the overall size of the economy there has been a boom, though it has diminished somewhat. PNG is dependent on mineral export revenues and is expecting larger revenues in the near future. Like Mozambique, PNG has developed mineral resources for export, but LNG that is still in the planning/construction stage could bring much larger revenues.[67] As in Angola and Nigeria, extractive industries, in this case, mining for metals (gold, silver, copper), preceded the country's independence in 1975. Small gold rushes in coastal areas started already in the late 19th century during the German and British colonization of the northern and southern halves of the island (Mineral Resources Authority 2013). This was small-scale alluvial mining in the beginning, but later gold operations were significant. For example, between 1932 and 1942 a dredging operation produced 1.3 million ounces of gold (Mineral Resources Authority 2013). But, mining benefited the colonial administration and the foreigners who owned the operations, and there was little benefit for the indigenous people of PNG (Mineral Resources Authority 2013). After WWII, the Australian authorities (who had taken over the protectorate from the British) began to survey and explore the geology of the protectorate and several copper discoveries were made. At independence, only one major mine, Panguna, was operating, and very little economic development had taken place because of mining.

Panguna is on the island of Bougainville, which is culturally part of the Solomon Islands and a separate independence movement (from the main island) arose in the 1960s. After independence, taxes and other revenues from the mine contributed to 20% of the new PNG government's revenues

[65] On the contrary, the benefits are not widespread despite impressive economic statistics, as will be highlighted in the following sub-section.
[66] However, this is not to say that international oil companies will not invest in high political risk situations, as their continued operations throughout Angola's civil war illustrates. Indeed, the licenses for these deepwater fields were acquired in the 1990s.
[67] Besides this similarity to Mozambique, it is also useful to look at a country outside of Africa.

(which was equivalent to about a 20% share of overall profits) and 9% of the country's GDP, but people of the island of Bougainville, which bore the brunt of environmental damage, received a profit share of between 0.5% and 1.25% (Cornish 2010). Panguna was one of the world's largest open-pit mines and is majority owned by Rio Tinto though the government of PNG held a 19% share. Eventually, the Bougainville Revolutionary Army engaged in sabotage at the mine and forced it to close in 1989, while the PNG army was engaged in fighting on the island for years (Cornish 2010). Hence, Panguna was hardly a success,[68] but in the 1980s other companies began to invest heavily in gold mining in PNG.

Another large scale mine the OK Tedi, began producing gold in 1984 and copper in 1987. After the closure of Panguna, Ok Tedi became the most important mining project and accounted for 46.8% of the total export revenue. This was followed by several other projects including Misima in 1989, Porgera in 1992, Lihir in 1997. Porgera is considered to be the largest gold mine outside of South Africa and the Lihir mine has rich reserves of alluvial gold (Aka 2001). The other important event of the 1980s was the 1986 discovery of oil reserves, which led to production commencing in 1992. Production jumped to as high as 130,000 bbl/d in 1993, but has been declining ever since at the main Kutubu field (Oil Search Ltd. 2013). Three much smaller fields have been brought on since, but reserves have not been sufficient to make PNG a major producer. A small gas field was also brought online to feed a gas-fired power plant (Oil Search Ltd. 2013).

By 1996, the EI sector accounted for 68% of exports and two-thirds of GDP, with mining alone accounting for 36% of exports (Aka 2001).[69] Moreover, artisanal mining is a significant employer; estimates in 2001 put the number of such miners at between 50,000 and 100,000 (Susapu and Crispin 2001). So, in many ways, this could be considered an EI boom. However, the absolute figures are small. In 1996, for example, nominal GDP was $5.2 billion for PNG, so even two-thirds equals $3.4 billion (IMF data). Real per capita GDP (in purchasing-power-parity terms) increased from about $1000 in the early 1980s when mining started to about $1,700 after mining development and crude oil production had commenced (IMF data). However, the economy stagnated after the mid-1990s, when it began to grow slowly again. Given that the PNG economy remains tiny and oil production has stagnated, the PNG LNG project (6.6 million tons per year) is likely to lead to another boom (Oil Search Limited 2013). The project is scheduled to come online in 2014, but the major investment that commenced in 2010 has already affected PNG's economy. Costs were projected at $15.7 billion, but have already risen to $19 billion in part because of work stoppages due to problems with local communities (*Platts*. 24 January 2013.). This suggests big costs that may not be quantifiable.

1. How Governments Responded to Corruption and the Influx of Money and Workers

Botswana: Botswana's government undertook various policies to avoid problems associated with natural resource-dependent economy. The GoB attempted to avoid the effects of Dutch disease by at first having pegged exchange rates and also having various devaluations using accumulated foreign exchange (Tregenna 2006). Botswana also created a sovereign wealth fund and a development bank. Yet, the currency of Botswana (the pula) did appreciate in real terms somewhat. Yet, despite the only limited appreciation of the pula, the government's efforts to encourage diversification of the economy seem to have been less successful. Such policies as concessionary tax rates and wage subsidies targeted at non-resource sectors of the economy do not appear to have been successful in creating diversification. Agriculture is less than 3% of GDP (Tregenna 2006), though the lack of arable land in arid Botswana is also a limiting factor. It nevertheless plays an important role in rural life. Manufacturing has never developed as an important sector.

The fact that as much as 50% of the working population remains in the agricultural sector has created a very unequal society in Botswana, with one of the highest Gini coefficients in the world.

[68] And, the fact that one mine, even a very large one, could provide 20% of the state's revenue indicates the relatively small size of the PNG economy and state.

[69] However, because much the agricultural sector and to some extent the service sector is not monetized, this tends to exaggerate EI's place in the economy.

Life expectancy is still low, though this is due in large part to an epidemic of HIV AIDS. Yet, in many other ways, the government of Botswana has used the resource revenues to create beneficial conditions. In particular, the country has had effective governance. Key elements of this include: a transparent political process; a sound fiscal system; effective regulation; and little corruption (Iimi 2007). More specifically, Botswana has had free and fair elections and the government works to benefit the country, though there have been some accusations that it is paternalistic and unresponsive to citizens. The fiscal system is transparent with the exception of Debswana. Macroeconomic management has been appropriate to windfall revenues with a revenue stabilization fund and a Public Debt Service Fund. Botswana implemented a policy called the Sustainable Budget Index (or Sustainable Budget Ratio), which ensures that all non-renewable resource revenues are invested in projects leading to economic development, or in human capital via education and health (Iimi 2007:665). This raised the long-run economic capacity of the country. The sovereign wealth fund (the Pula Fund) invests the revenues in financial vehicles appropriate to the long-term needs of the country and preserving wealth from diamonds for future generations.[70] Botswana has a dedicated, independent, and effective anti-corruption agency and has the best score in Africa on Transparency International's 2012 Corruption Perceptions Index, at 65 – a score superior to that of a number of wealthy European countries.[71]

Botswana had, prior to its own resource boom, been a colony/country sending out migrants, with many Batswana leaving to work in South Africa's mines. The first effect of the boom was the ending of migrant workers leaving Botswana in significant numbers (Lefko-Everett 2004). Due to the small population of Botswana and lack of skilled workers, the country instituted a fairly open immigration policy along with the mining boom in the 1970s. The number of legal non-nationals living in Botswana tripled between 1971 and 1991 from 10,861 to 29,557, and had risen to 60,716 by 2001 (Lefko-Everett 2004).

According to the UNDP Human Development Index (UNDP HDI), Botswana in 2011 was ranked with a rating of 0.602, making it ranked 118 out of 187 countries in terms of its level of development (in the medium human development range) (UNDP 2011). Advancing to a medium development range in one generation from one of the absolute poorest countries in the world evidences the overall good management of the country's diamonds' boom. However, economic inequality remains a problem.

Nigeria: Nigeria is in many ways a classic case of policy mistakes in response to the influx of oil revenues. Moreover, aside from mismanagement of revenues, the sector itself has been mismanaged in terms of regulation, environmental protection, refinery management, etc. This only compounds problems of governance that apply to revenues. The government's inability to deal with crime associated with the sector is yet another issue. Indeed, this section can only highlight some of the main problems. That is not to say that the country did not benefit at all, particularly during the 1970s after the Biafran War until the oil price collapse in the 1980s. Oil revenues were used to build infrastructure in a country that was seriously deficient, and wages and consumption increased, though Dutch Disease took its toll, as by the end of the 1970s the economy was undiversified and the agricultural export sector became uncompetitive (Iyoha and Oriakhi 2002).

Perhaps the most important problems have been related to undemocratic and repressive governments and kleptocratic officials. For much of Nigeria's history since independence, the country was ruled by military dictators (1966-1979 and 1983-1998). These rulers, lacking any democratic accountability, often chose to use the wealth of the oil sector for their own purposes rather than for the economic development of the country. According to the United Nations Office on Drugs and Crime (UNODC), corrupt government officials stole approximately $400 billion of public revenue derived from oil, from 1960 to 1999,[72] a staggering figure probably unparalleled in

[70] See p. 59 for more on this.

[71] See http://cpi.transparency.org/cpi2012.

[72] "The opportunity cost of the stolen common wealth is enormous. Think how different Nigeria would (have) looked today." 2007 speech in Abuja by Antonio Maria Costa, Executive Director, UNODC, as cited by Lucas Ajanaku, "The

any other OPEC country.[73] The lack of democracy and accountability for most of Nigeria's history facilitated this phenomenon, intensifying particularly during the later years of military rule. On the time of the Obasanjo administration (1999 to 2007), one Nigerian editorialist put it this way: "The best benchmark to essay the magnitude of corruption in the Obasanjo years is to compute the amount of money the nation made from the sale of crude oil between 1999 and 2007 and juxtapose it with the lamentable collapse of social infrastructure across the country"[74] (Amor 2008).

In the oil, gas, and power sector, it is difficult to quantify exactly how much lawful revenue is uncollected, and how much is stolen, misspent, or misdirected. There are some indications, though. In 2005, the Economic and Financial Crimes Commission (EFCC) informed the British Broadcasting Corporation (BBC) that "45% of Nigeria's oil revenues are wasted, stolen or siphoned away by corrupt officials."[75] On 25 August 2008, the Speaker of the House of Representatives, Hon. Oladimeji Bankole, stated that N1.5 trillion ($12.7 billion) generated as revenue from Nigerian National Petroleum Corporation (NNPC) in the last 10 years had not been remitted to the Federal Account Allocation Committee (FAAC).[76] In perhaps the largest single case in financial terms, the $16 billion in power plant construction contracts that somehow never resulted in levels of new power commensurate with that level of investment was found to be associated with corrupt activities of former President Obasanjo, former Governor Liyel Imoke of Cross River State, former Governor Segun Agagu of Ondo State, and diplomat Alhaji Ahmed Abdulhameed, and others, according to a House of Representatives Committee that has probed the matter (*Daily Trust* [Abuja] 29/10/2008) High officials in Nigeria have criminal immunity (itself a problem) but in 2008, the Nigerian government through its specialized anti-corruption agency came close to charging 31 former governors and former President Obasanjo with corruption. However, the head of the agency (Nuhu Ribadu) was removed through a controversial process in 2008 and the files on the ex-governors and former president disappeared when the newly appointed head took over. In late 2012, a report produced by Ribadu for the Ministry of Petroleum was leaked to the press (Rice 2012 b). It showed that a total of $183 million in signature bonuses paid by oil companies from 2008 to 2011 to the government is missing. The report also shows Nigeria may also have lost $29 billion in the last decade in the preferential gas deals with major oil companies, such as Shell and Total. The report also showed that crude oil theft is reaching an alarming level—250,000 barrels/day—at a cost of $6.3 billion per year. The report was later put online and shows epic mismanagement of the sector that, even without corruption, costs Nigeria billions of dollars per year.[77]

Nigeria has also inadequately invested in human capital and infrastructure since at least the 1970s so as to bring economic development. There was an initial strong push on education in the 1970s, wherein the government increased spending to 20% to 30% of regional budgets (Iyoha and Oriakhi 2002), and some progress was made reducing terrible illiteracy levels. Other investment levels were also raised, particularly in the mid-to-late 1970s, but after the oil price collapse of the early 1980s and resumption of military dictatorship, investment levels declined and infrastructure was not maintained. Nigeria, despite its large population, remains weak in key human capacity areas. For example, Nigeria needs thousands more petroleum engineers, as well as welders and other skilled trades, as well as skilled workers for sectors such as information technology (Opara 2012). In February 2008, NNPC head Abubakar Yar'Adua described the staffing problem as the most critical challenge facing the corporation and ordered that staff disengaged from a previous

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Squandering of Riches", *Tell*, 18 February 2008.

[73] In 2001, on the U.S. television program *Frontline*, then-Saudi Ambassador to the United States Prince Bandar bin Sultan said, "The way I answer the corruption charges is this. If you tell me that building this whole country [Saudi Arabia] and spending $350 billion out of $400 billion, that we had misused or got corrupted with $50 billion, I'll tell you, 'Yes.' But I'll take that any time." www.pbs.org/wgbh/pages/frontline/shows/ terrorism/etc/script.html

[74] The article assesses the amount of government spending in that time at about 18 trillion naira ($153 billion).

[75] "Nigeria Ex-Police Chief Detained," BBC, 30 March 2005.

[76] Oladineji Bankole, Speaker, House of Representatives; Address at annual conference of the Nigerian Bar Association, held in Abuja. 25 August 2008. Bankole said the fraud was unearthed in the course of the on-going investigation of the corporation.

[77] http://247ureports.com/full-text-of-nuhu-ribadus-oil-subsidy-report/

downsizing exercise be recalled to help run the refineries, “irrespective of their age or qualification” (*Punch* (Nigeria) 8/2/2008). The country also lacks sufficient engineers to operate its power stations and maintain the electricity grid, while 90% of the employees of the Power Holding Company of Nigeria (PHCN) are unproductive because of poor professional training (*Punch* (Nigeria) 8/2/2008).

According to the Minister of State for Transport, John Okechukwu Emeka, about 80% of Nigeria’s road network is in a “terrible state” (*The Guardian* (Lagos) 21/4/2008). The Federal Road Maintenance Agency (FERMA) and the transport ministry still owe contractors billions, making new ones reluctant to sign on. The 1.7 trillion naira spent on roads during the Obasanjo administration seems to have done little improve conditions (*The Guardian* (Lagos) 21/4/2008). A proposed 5% levy on fuels to fund FERMA’s plans to maintain the country’s roads has little chance passing politically in a climate of expected subsidies. Nigeria’s railroads have followed a similar pattern – in July 2005, the Director General of the Bureau of Public Enterprises described the rail system as having “collapsed” (Chigbue 2005). The Nigeria Railway Corporation has repeatedly declared bankruptcy over the past 25 years. In the past few years, the Nigerian government has made some investments, and finally one line reopened between Lagos and Kano in February 2013, but the railways system was far more extensive in terms of passengers and freight 100 years ago during the colonial period (BBC 2013). Not only does much of the country suffer from a lack of passenger train access, but freight train access as well.[78]

To adequately deal with infrastructure deficiencies related to electric power, gas, oil and transport, the Minister of Finance estimated that the cost to the government over for the period 2009-2014 would be more than $100 billion (*This Day* (Nigeria) 24/10/2008). This is about twice the size of 2007’s gross crude oil revenues and nearly five times the size of the 2008 government budget. Thus, Nigeria faces a sort of trap: it needs to make these kinds of massive investments to grow its economy and sustain and expand oil and gas production. Yet, there is probably not enough money to make these investments because the poor condition of the infrastructure in these four areas constrains oil, gas, and general economic output.

> The government has spent much to fund the subsidies for petroleum products. In 2006, it spent 261.1 billion naira (US $2.03 billion) or 1.4% of GDP on such subsidies. This rose to 278.9 billion naira (US $2.3 billion) in 2007 or 1.3% of GDP, and then nearly tripled to 633.2 billion naira in 2008 (US $5.37 billion) due mainly to rising oil price and depreciating exchange rate. Thus, between 2006 and 2008, government subsidy payments to NNPC and other marketers of petroleum products was in the range of 1,173.2 billion naira (US $9.7 billion). This figure exceeds total capital allocation to priority sectors in 2009 budget (N 952.9 billion or US $6.57 billion) made up of security at $0.62 billion, aid for the Niger Delta $0.68 billion; critical infrastructure $3.20 billion; human capital development $1.11 billion; and Land reform & food security $0.96 billion (Adenikinju 2010:4).

Yet, because many Nigerians justifiably feel that the only benefit that they receive from the country’s oil wealth is the fuel subsidy, any effort to reduce the subsidy is politically explosive, leading to protests and riots.

There have been efforts to combat corruption in Nigeria, though the challenge is immense after decades of entrenched corrupt practices. One major effort was the creation of a specialized anti-corruption police agency, the EFCC, which is separate from the normal police force and with the legal authority to investigate and prosecute corruption. There are few things more important to the future success of the Nigerian state than an institution such as the EFCC that is able to rein in the pervasive corruption in the country, without the institution itself becoming a political tool. The EFCC has had some real successes since its founding in 2003, most notably with the arrests of a number of high-ranking politicians. Yet, it is rumored that the 2008 dismissal of its Chairman, Nuhu Ribadu, was itself pushback by politicians angered by the EFCC’s aggressiveness.[79] Ribadu

[78] This means that petroleum products for local consumption are largely distributed by road, which creates ample opportunities for product diversion, cross-border smuggling and other irregularities.

[79] Cf. Green, Matthew. 2008. Nigeria Struggles with Graft Controversy, *Financial Times*, 16 January. Some have argued though that Ribadu was too loyal to former President Obasanjo and that President Yar’Adua had to put his own appointment in to assert independence from Obasanjo and his associates. Some have even gone further and asserted that Obasanjo used Ribadu as a tool to persecute political opponents. Green, Matthew. 2008. Nigeria Anti-Graft Drive Facing Threat, *Financial Times*, 7 August.

testified in the Federal High Court on 3 November 2008 that he was demoted in rank in the police and personally under threat because of his anti-corruption efforts.[80] (*Daily Independent* (Nigeria) 4/11/2008). The EFCC continues to be weakened by pushback by from power figures. Nigeria has several other anti-corruption agencies which are smaller and less prestigious than the EFCC, which may be seen as redundant, disorganized, and wasteful or alternatively seen as a check on the other agencies.

Another major anti-corruption effort has been Nigeria's joining the Extractive Industries Transparency Initiative (EITI). EITI is discussed elsewhere in this report, but basically, it uses an external auditing process to see whether what EI companies indicate that they are paying to a government match what the government is receiving from the companies. This can make it more difficult for a government to divert payments prior to their reaching the general budget. Nigerian civil society has gone further and pushed for a stronger EITI called Nigerian EITI or NEITI. NEITI is a coalition of the government (including the legislative branch at the federal and state level), extractive companies (and their representative associations) and civil society (including the media), all of which have representation in the 28-member National Stakeholders Working Group. NEITI is supported through a law that requires companies and government officials to comply with requirements that go beyond the most basic form of EITI into more sophisticated accounting of EI revenue flows; understanding not only what was paid, but what should have been paid; increased transparency on the spending side; and penalties for non-compliance (NEITI 2013). Unfortunately, NEITI arrived after more than 40 years of entrenched corrupt practices, and so, while it has had some success,[81] Nigeria still suffers from enormous corruption. The country was ranked 139 out 174 countries on Transparency International's Corruptions Perceptions Index, with the poor score of 27 out of 100.

Nigeria remains in the UNDP HDI's low human development range, with a rating of 0.471 (UNDP 2011). This about average for sub-Saharan Africa, indicating that many other countries in the region without such hydrocarbon resources have, nonetheless, achieved similar levels of economic development. Indeed, if Nigeria did not have oil and gas revenues, but had the same indicators on poverty and health that it does now with those revenues, it would probably be a candidate for much larger aid flows.

The oil and gas industries did not bring a large-scale migration of workers into Nigeria. Oil production is much more capital-intensive than mining. Also, the enormous population of Nigeria as well as the fact that the Niger Delta is densely populated and a difficult environment for outsiders has meant that migration into area has been small. What has occurred is that environmental damage and violence from insurgencies in the Niger Delta has caused outward migration from the main onshore oil and gas producing areas. In the 2000s, an estimated 480,000 people in the Niger Delta were internally displaced (Mberu 2010). In the context of a country of over 160 million with constant and massive migration to cities as well as internally displaced people from embattled communities in the "Middle Belt" and North of the country, the government has tended to do little for those who fled the Delta for other parts of the country.

Angola: Angola evidences many of the same characteristics of Nigeria, with the notable exception that the state oil company, Sonangol, has had much better management than NNPC, such that the state does not lose vast sums of money from incompetence and theft by non-state actors as in Nigeria. Nevertheless, Sonangol is managed to satisfy the interest of powerful elites, rather than the Angolan people in general. Another difference is that because the oil and gas reserves are offshore for the most part, direct environmental and social effects of production are much less. Angola has similar petroleum revenues to that of Nigeria, yet Angola's population is only one-eighth the size of that of Nigeria, hence, petroleum revenues should be able to make more of a direct impact on people's lives. Petroleum revenues in Angola could be used for much larger investments in health or education per capita than in Nigeria. Yet, the government has chosen to not

[80] Tunde Opeseitan, "Why I was demoted – Ribadu", *Daily Independent* (Lagos), 4 November 2008.
[81] Nigeria achieved basic EITI compliance in March 2011.

make such investments on the scale necessary. Rather, much of the oil revenues (which represent about 40% or more of GDP, depending on oil prices, and about 60% of government revenues[82]) are diverted.

This can occur because Sonangol is in many ways run for the benefit of a small group of politically-connected Angolan elites known as the *Futungo de Belas*. Sonangol is a sort of parallel state that takes as much as half of the country's oil revenues and uses them for the purposes of the *Futungo de Belas* (de Oliveira 2007). All of the ways in which this is accomplished are not known, but some of the corrupt practices of Sonangol have come to light. One is that special oil-backed loans are created that cost the Angolan state to the benefit of the well-connected who obtain these loans (de Oliveira 2008). Another is clever accounting schemes that honest bureaucrats in the regular bureaucracy are unlikely to detect. Angola has a very complex methodology for foreign oil company payments to the government, and many of these payments pass through Sonangol before they are supposed to reach the general budget. Such needless complexity does, however, provide more avenues for revenue diversion (Global Witness 2011). Moreover, along with the concentration in bureaucratic/administrative competence in Sonangol has been the marginalization of Angolan government ministries. For example, the IMF has estimated that $4.22 billion of Angolan oil revenues somehow disappeared between 1997 and 2002 (IMF 2002). More recently, Global Witness did an extensive investigation of Sonangol's finances for the year 2008 and found that "The figures published by Sonangol and the ministries for the volumes of oil sold by the state oil company, which is Angola's single biggest source of revenue, do not always match each other. There is a massive gap, with a nominal value of US $8.55 billion, between the ministries" (Global Witness 2011).[83] Global Witness found numerous other accounting irregularities that altogether amount to billions of dollars in revenues, dividends, taxes, fees, and bonuses that are inconsistent or are unaccounted for. For legal reasons, Global Witness could not directly accuse Sonangol of massive fraud and corruption, though it is clear that given Sonangol's level of competence, that unintentional accounting mistakes on this scale would beggar belief.

The result is that despite Angola's handsome oil revenues, even on a per capita basis, the country is mired in poverty and a lack of human development similar to countries much, much poorer. Comparing Angola with Mozambique in terms of GDP per capita and Human Development is instructive. In 2012, the purchasing-power-parity per capita GDP of Angola was $6,200, making it slightly better off than countries such as Paraguay, Georgia, and Jordan.[84] Mozambique, on the other hand, had a purchasing-power-parity per capita GDP of $1,200 in 2012, about one-fifth of that of Angola.[85] Yet, in the UNDP's 2011 Human Development Index (HDI),[86] Angola achieved a score of 0.486, putting the country in the low human development category and ranking it 148 out of 187 countries ranked. Georgia, with slightly lower per capita income than Angola, achieved an HDI level of 0.843, making it a high human development country. Angola then, resembles not its peer countries in terms of income, but rather, on a human development level, more closely resembles Mozambique, which had an HDI score of 0.322. In terms of infant mortality, Angola has a higher rate than Mozambique and one of the highest rates in the world, at 104.3 per 1,000 live births in the 2005-2010 period. This indicates tragically inadequate and ineffective health sector spending.

Anti-corruption efforts have had little success in Angola. Angola has an even lower rank and score on the Transparency International Corruptions Perception Index than Nigeria, at 22 and 157

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[82] Government figures are not reliable, as will be discussed shortly.

[83] 2008 was the first year that Sonangol published a (limited) audit, which, when carefully studied and compared with other government and Sonangol documents, does help one to find inconsistencies. This is despite the fact that the auditors themselves found no important inconsistencies or problems. Note that one of the authors of this report undertook the investigation referred to here while working for Global Witness.

[84] www.cia.gov/library/publications/the-world-factbook

[85] ibid.

[86] HDI is "way of measuring development by combining indicators of life expectancy, educational attainment and income into a composite human development index, the HDI. The breakthrough for the HDI was the creation of a single statistic which was to serve as a frame of reference for both social and economic development." – UNDP website.

of 174, respectively. The country is not a member of EITI. Indeed, EITI came about in part from British Petroleum's being threatened with reduced business opportunities by Sonangol in 2001 for revealing British Petroleum's payments, and the international oil companies themselves decided that a global approach where all companies would have to comply would reduce the chance of a particular government threatening companies that were unilaterally transparent.[87] The Angolan government has felt some pressure to increase transparency, hence the external auditing of Sonangol has begun, though the audits themselves are of limited value unless used as a component of a larger study done by professionals—and even then, much remains obscure. As long as there is an authoritarian government dominated by the *Futungo*, little hope exists for things to change. And, Sonangol's role as a competent organization managing corrupt practices is a cautionary tale for Mozambique, as its state oil company ENH prepares to take a larger role as offshore natural gas projects come online in the next five-to-ten years.

Angola had a massive problem with internally displaced persons and emigration as a result of the civil war that ended in 2002 – as many as 4 million people were forced to migrate because of the conflict (International Organization for Migration undated). An unknown number went to work in the diamond-producing areas during the war and still many Angolans as well some people from surrounding countries have migrated to these areas. However, unlike particular mining or hydrocarbon projects run by large companies (such as the coal mining companies in Mozambique), artisanal (small scale and largely-unregulated) mining for diamonds has brought problems of health and local society, as well as dangerous working conditions that are difficult to control and quantify in a state that has a low capacity – Angola has done little for workers and areas of artisanal diamond mining. Offshore projects do not cause many migration problems, given the relatively small, high-skill labor contingents, though the construction of the Angola LNG export plant near Soyo has brought about 3,500 Angolans and 3,500 foreigners to the area since 2008 (International Organization for Migration undated). Only about half of the Angolans are from other provinces. On this one and highly visible project, the government of Angola has been successful in avoiding the worst consequences by following international best practices, though the operator of the project is U.S.-based super major Chevron, which has been eager to avoid any negative publicity. Angola's main problems in terms of worker migrations lay in alluvial diamond mining, not one high-profile, highly capital-intensive project managed by an American super-major.

Papua New Guinea: PNG has never received the level of revenues from EI, at least in absolute terms, that the previous three countries have. Yet, as described above, in percentage terms given the very small PNG economy, the mining sector has brought a boom to PNG. And, like Mozambique, a large LNG project that is expected to start in 2014 could bring a much larger boom than minerals mining has. Up to now, the boom has benefitted very few Papuans. Papuan society is such that the majority of the population lives in rural isolation in traditional communities, such that government revenues have little or no effect on their lives. Second, the government has so few other sources of revenues that despite mining's key role, revenues remain inadequate and the government remains aid dependent (Institute of National Affairs 2007). As one report put it,

> economic development has been subject to the international price of some goods, such as crude oil, gold and copper for a long time, which for many years has not enabled adequate funding for public sector needs, when combined with inadequate structural adjustment by government, which has to limit the expenditure on medical care, sanitation, education and infrastructure. Because about 25% of the fiscal budget is used to repay debt, there are not enough funds to invest in economic development (Institute of National Affairs 2007:8).

More recently, the price of oil has been high, but production has fallen dramatically, so there has not been any additional boom from the high oil price as there has in some other parts of the world. However, gold and copper prices have benefitted the economy and enabled the government to pay down debt, in contrast to the previous decade. The IMF forecasts government revenues to fall until LNG revenues appear in sizable quantities in 2018, and has encouraged the government to not

[87] BP raised the issue with the British government, and it was the British government in 2005 which proposed EITI.

reduce spending in the interim in order to smooth spending and respond to the needs of this least developed country (IMF 12/126 2012). The IMF has noted that the government has a fiscal regime that is on the low end of government take, probably because it uses a case-by-case basis for project taxation, rather than a legislated approach. Government expenditure is about 30% of GDP, and without minerals revenues, would run a large deficit – as recently as 2009, the budget deficit would have been 13% of GDP without mineral revenues (IMF 2012). Mineral revenues' volatility has been problematic.

Hence, the mining and oil industry make possible a government with some capacity, but are insufficient by themselves to drive economic development. This is a situation that, to some degree, Mozambique has found itself in, with limited revenues from one relatively small gas project and a few mining operations in recent years, though in PNG there was a relative boom compared to the recent situation in Mozambique (in part because Mozambique is a significantly larger country in terms of population). The limitations of the revenues during the small boom of the 1980s, is seen in the severely limited investment in infrastructure, health, and education until very recently (and much of that recent investment is associated with the LNG project). In addition, tackling illiteracy in a country of 800 tribal languages for just six million people, many of which are not written, makes for unique educational challenges. Much of the interior is inaccessible except by foot (or helicopter), except where large mining projects have been located. Some progress has been made on health – for example, the infant mortality rate in PNG is significantly lower than that of Nigeria or Angola at 50.6 per 1000 live births in the 2005-2010 period.[88] The overall UNDP HDI is similar to those of Nigeria and Angola at 0.466.

Like those two countries, corruption has also been a problem, and PNG also does poorly on the Transparency International Corruption Perceptions Index: it scored 25, ranking it 150 out of 174. Part of the problem in PNG is that there has been a relative lack of analysis of problems of revenue management compared to some other more well-known EI-countries, but a recent report by a government-funded but independent think tank has done this by tracing the revenues from one particular gold mine (Porgera).

> To the communities that are supposed to be the ultimate beneficiaries of PNG's mining and mineral wealth, the legal and payments system is complex, opaque, and one sided. There remains a critical lack of transparency at both the national and sub-national government levels. Audited payments made by the mining company to the government and various stakeholders can be tracked; however, the question of where these payments go and how they are spent once they leave the mine remains unresolved.
>
> The national government lacks a credible, concise, and explicit program to detail its payments from and to stakeholders and track how stakeholders under its control operate. Details of how much of the revenues from mining projects have been spent are difficult, if not impossible, to access. Some agencies, particularly the Mineral Resources Development Company (MRDC), have displayed a complete lack of willingness or ability to understand the revenue over which they are supposed to have control. Other agencies, such as the Investment Promotion Authority (IPA), lack the legislative power to effectively achieve their mandate.
>
> The lack of ability and willingness by the national government and its agencies to collect, audit, and disseminate information on the large amount of mining revenue has led to rumour and innuendo driving the mining policy debate. Institutions such as landowner groups, statutory government agencies, and landowner companies are being run in an information vacuum. This has created conditions under which the boards that are responsible for the money become unaccountable and large amounts of money become untraceable. Much of the financial benefits are thought to be consumed in Port Moresby (at the Crowne Plaza), with only a few individuals having access to a large slice of the wealth. The PDA [Pogera Development Authority], the PLoA [Porgera Land Owners Association], the managers of the landowner portion of the equity stake, and LLG [local level government] officials have been unable or unwilling to explain where and how billions of kina are spent. This has led to distrust between landowners, the government, and the company (Johnson 2012: x-xi).

PNG's government is considering joining EITI, which would resolve some (though not all) of the problems identified above. Oil Search Limited, PNG's monopoly oil and gas producer (until the LNG project comes online) is lobbying the PNG government to join (EITI/Oil Search 2013).

[88] UN data available at http://data.un.org

Because mining sites are remote, often in deep tropical rain forest or even on an island, companies bring in most workers rather than have workers migrate themselves to mining sites. There may be some unskilled opportunities for local communities, but local communities have often had to bear all the environmental costs. The government of PNG has not been able to create nor enforce best practices on migration in the sector. The GoPNG usually leaves it to the companies to manage issues of health, infrastructure, housing, schools, etc.—in short, all those areas usually the responsibility of a government (Thomason and Hancock 2011). Thus,

> migration into mining areas often results in crowded squatter settlement areas. These areas generally have poor access to services, typified by low levels of sanitation and maintenance of infrastructure. Hygiene amongst migrants who may have very little in the way of resources and do not have any rights to the land can be even poorer than rural hygiene, primarily due to over-crowding and a lack of resources. Due to the limited transport infrastructure of PNG some mining areas are not accessible by road. Most mining areas are far from regional centers and consequently have poor access to public services other than those provided by the mining operation. The type of transport routes by which mine sites are accessible can play a role in determining the types of exposure to communicable disease that are experienced by the workforce and local communities. Large scale mine sites that provide public services and are easily accessible generally experience higher levels of migration and settlement which may result in increased exposure to different types of communicable disease. The logistics chain of each operation may also need to be considered when developing an understanding of workforce exposure patterns (Thomason and Hancock 2011:14-15).

2. Donor roles

Botswana was highly dependent on aid flows in the years before revenues from mining started flowing to the government, and continued to receive aid even as mining revenues increased rapidly in the 1970s (Tregenna 2006). This donor aid was helpful in creating the basic conditions for the mining sector to take off in what was a very underdeveloped country. Also, as donor aid continued, it was targeted toward the sound development plans that had been elaborated by the government with the help of donor agencies. Indeed, unlike some other countries at the time, the GoB required aid to fit into its coherent plans rather than to donors' various and sometimes-unconnected priorities, as often occurs in many countries (Tregenna 2006).

In Nigeria, the international community prioritized reducing corruption, and was instrumental in starting the EFCC. In addition, having the institution relatively free from patronage from certain politicians for adequate funding was another donor goal. The EFCC has received over $40 million in targeted grants and credits from aid donors (Peel and Green 2008). Donors were also important funders of NEITI, providing millions in grants directly and through civil society groups involved with NEITI. These projects have been partially successful – it is just that the scale of the problem in Nigeria is so large that it is not reasonable to expect that donors alone can turn the situation around, as the probable compromise of the EFCC illustrates.

Angola is not aid-dependent, and donor aid has tended to be uncoordinated. However, the African Development Bank does have a program to build capacity at "the National Directorate of Public Investment (NDPI) in the Ministry of Planning (MINPLAN). The initiative is part of GoA's efforts to improve execution of the Public Investment Program (PIP) for economic growth and poverty reduction. The project is expected to strengthen institutional capacity for improved planning, appraisal, implementation, monitoring and evaluation (M&E) of publicly-financed projects" (African Development Fund 2010). Given the contradiction between the availability of revenues and the grinding poverty in Angola, if, after Sonangol takes its share, if would be good if this program leads the government to spend what is left over in a ways that promote economic development.

PNG is still aid-dependent for its general budget, though compared to its peers in the Oceania region, only Fiji is less aid-dependent. Until recently, aid represented about 4% to 5% of GDP and declining, and will continue to decline as per the IMF scenario (IMF 12/126 2012). Aid is more typically focused on that of developing country rather than specifically targeted for issues related to EI. For example, Australia's AusAID (a major donor as the former colonial administrator) focuses on support for government programs on education, health, transportation infrastructure, and for the law enforcement/judicial system.[89]

[89] www.ausaid.gov.au/countries/pacific/png/Pages/default.aspx. Accessed 2 February 2013

Appendix 2. **Country comparisons, 2012**

Country	Population	Industry	GDP	Revenues attained from EI
Botswana	2,098,018	diamonds, copper, nickel, coal, iron ore, silver	GDP (purchasing power parity [PPP]): $31.49 billion GDP per capita (PPP): $16,800 GDP - real growth rate: 3.8%	Since the GoB also collects royalties and corporate taxes, its total share of revenues from diamond mining is in between 75% to 80% of total profits.
Nigeria	170,123,740	crude oil, coal, tin, columbite	GDP (PPP): $450.5 billion GDP per capita (PPP): $2,700 GDP - real growth rate: 7.1%	The oil sector, which accounts for over 95% of export earnings and about 40% of government revenues, according to the IMF.
Angola	18,056,072	petroleum, diamonds, iron ore, phosphates, feldspar, bauxite, uranium, gold	GDP (PPP): $126.2 billion GDP per capita (PPP): $6,200 GDP - real growth rate: 6.8%	In 2011, oil export revenues were $68.2 billion according to the U.S. EIA. The government's after-cost oil revenues take (through all avenues, direct and indirect) is estimated to be at 85%, indicating nominal government oil revenues of about $50 billion in 2011 (Shaxson 2009; U.S. EIA statistics). In total value, nearly all exports are either diamonds or petroleum, with over 90% being petroleum.
Papua New Guinea	6,310,129	gold, silver, copper with LNG upcoming	GDP (PPP): $18.45 billion GDP per capita (PPP): $2,700 GDP - real growth rate: 7.7%	By 1996, the EI sector accounted for 68% of exports and two-thirds of GDP, with mining alone accounting for 36% of exports (Aka 2001). By 2006 approximately US $26 million was collected in new tax revenues.

Source: CIA World Factbook, www.cia.gov/library/publications/the-world-factbook

Appendix 3. Land Laws and Violations

A. Erosion of legislated land rights

This annex is dedicated to show issues that are emerging with land use and violations to land distribution and allocation. The main body of the report presents several examples of poor land management illustrated in section V.B.1. and will not be repeated here.

Figure 3. *ENH request for consultancy for resettlement, logistical bases, and land use plan for Palma District*

ENH
Hidrocarbonetos de Moçambique

Notícias, InBid, 07-Jan-2013

ANÚNCIO DE CONCURSO PÚBLICO
Concurso nº 01/UGEA/ENHL/2013

A Empresa Nacional de Hidrocarbonetos, E.P., ora designada por ENH, convida empresas interessadas a apresentarem proposta fechada para contratação dos serviços de:

Lote I - Consultoria em estudo sócio-económico e plano de reassentamento da população do Distrito de Palma em Cabo Delgado.
Lote II - Consultoria técnica para implementação de bases logísticas na cidade de Pemba e Distrito de Palma em Cabo Delgado.
Lote III - Consultoria para elaboração do Plano Distrital de uso da Terra no Distrito de Palma em Cabo Delgado.

Os termos de referência poderão ser adquiridos pelos interessados, na sede da ENH, Av. 25 de Setembro, nº 270 - Bloco 1, Time Square, 1º andar, de segunda a sexta-feira das 7.30 às 15.30h.

As propostas deverão ser entregues no endereço acima indicado até às 10.00h do dia 15 de Janeiro de 2013 e serão abertas em sessão pública na mesma data e no mesmo local às 10.30h, na presença dos concorrentes que desejarem comparecer. Os concorrentes deverão indicar no envelope o assunto do presente concurso.

O concurso será regido pelo regulamento de contratação de empreitada de obras públicas, Fornecimento de Bens e Prestação de Serviços ao Estado, aprovado pelo Decreto nº 15/2010, de 24 de Maio.

Maputo, aos 4 de Janeiro de 2013
UGEA

The advertisement above in Figure 1 calls for three consultancies, one being a resettlement plan for the area and one being a zoning plan; this latter shows a certain level of cynicism as the GoM already has a zoning plan. Though the team obtained an unofficial copy, not all is above board with the call for a zoning plan. Note the dates of publication and of submission of the call for proposals. The time period is very short, less than two weeks. This raises questions about whether this is a genuine call or just window dressing. The fact that ENH has recently created a sister company called ENH Logistics, which is designed to handle logistical aspects of the petroleum industry fortifies these doubts. ENH Logistics has been widely criticized, including by the World Bank,[90] for

[90] Telephone interview with World Bank senior gas official in Washington D.C.

being an instrument that goes beyond the accepted role of the state. While ENH holds shares in trust for the nation (a valid role for a state-owned company), ENH Logistics competes directly with the private sector for provision of support services for the sector. It is hard to argue that this is a valid role for the state. However, in light of the above advertisement and the existence of the *Reserva do Estado* plan, it is much easier to understand why elements of the GoM might want to have tight control over the outcomes of the Palma consultancies.

Why is the ENH role in the future Palma resettlement a concern? Because it was the state that decided where resettled populations of Vale and Rio Tinto would go to, namely, the two areas of Mualadzi and Cateme. While there are many accusations and GoM officials deny that they chose the areas, when the story comes out all agree that five or six sites were selected, and the population had to choose between them. (This is how state officials can say that the population "chose"; they were offered a choice between bad and worse). None of the sites had conditions to maintain the mixed livelihood system that supported the two populations, which consisted of riverbank agriculture, fishing, block-making, entrepreneurship based on proximity to the city, and non-timber forest products. Instead, the area has stony soils and limited rainfall and is 40+ km from the city.

When the population objected, they were accused of being "against development". A government commission for conflict resolution set up by government of Tete province accused and threatened Saize Roia, traditional leader of Chipanga village in Tete, for allegedly being an agitator and "anti-development" (Selemane 2010).

After the January 2012 demonstrations in Cateme, the local administration established a road-block at the entrance to the resettlement area. Journalists, human rights activists and socio-economic researchers were obliged to get a permit to enter the resettlement area. Many of them were threatened and accused of being agitators, as reported by Human Rights Watch (2012). When visiting Cateme in January 2013, our research team member had to accept an "escort".

At this moment, Vale has received such bad press that it is frantic to correct the situation, (and is spending millions on vegetable processing factories, silos, fencing, small irrigation, etc.) but no one can correct bad soil and little rain. This is a genuine lose-lose situation with no real solution in sight.

So, what can we expect in Palma? Moving forward, Anadarko may create a "higher" quality resettlement with possibilities for civil society to engage and support and achieve a decent resettlement outcome, though, of course, the company is only interested in doing the minimum it is required to do by GoM, civil society or its own internal regulations.[91] Anadarko estimates that there are about 700 families in its area. A key issue, however, will be access to beach and fishing as both north and south of Palma, all beachfront is "zoned" for other uses for quite some distance (est. 30 km). Proximity to the town and the economic benefits therefrom are other issues. The last issue will be quality of agricultural land. There are lessons to be learned from Tete here.

Communities were promised two hectares of "good" agricultural land by Vale. These lands were duly laid out in squares but only one hectare per family has been awarded. As it turned out, however, the only usable part of these blocks were the bottomlands. If you had low land in your hectare, you could plant along that strip. If not, the land was unusable. Anyone who has spent time in the fields of the north knows that traditional agriculture is done in low lying areas to maximize access to soil moisture. Much more attention needs to be given to field layout, and it must be recognized that the landscape has a mosaic of usable and unusable lands. This means fields spread over a wider area, and perhaps the need to rethink the re-settlement paradigm of re-settling people in villages; the distance to fields can be too far to walk at high resettlement population densities.

As far as the "*Reserva do Estado*", about 2,000 families in communities in the "*Reserva do Estado*" have already been told to move. Does this forebode something along the lines of what occurred in Tete? *If so,* the resettlement will proceed with *no investor* with whom the communities can negotiate. Local government will be instructed to push for rapid solutions, regardless of its opinion about what ought to be done. And communities or individuals who resist will be subjected

[91] Interview with representative Anadarko Moçambique Área 1, Lda., 25/1/2013

to pressures and accusations similar to those in Tete. Then, whose interests will be protected and which scenario will play out?

B. Concessions and Conflicts

The GoM grants priority to mineral exploration over all other forms of land use (with the exception of national parks, which to date are being vigorously defended by the Department of Mines, who do not even allow concessions in the buffer zones (which represents a major improvement after the fiasco with the Statoil concession and the Quirimbas National Park buffer zone). Thus the Dept. of Mines has no qualms about issuing mining concessions superposed on other types of concessions. In central and coastal Nampula province, in Tete, and in Montepuez District and surrounds, great contiguous blocks of land have been licensed out and many more concessions have been requested.

1. Heavy Sands

The Kenmare mining concession is one of the first concessions to be developed, by the Irish firm Kenmare Resources. They are mining already on one block close to Topuito in Moma, with two additional blocks, one north near Sangage and south, nearer to Moma Town. Reserves of heavy sands are sufficient for an estimated 120 years. The entire rest of the coast from Nacala to mid Zambezia has been concessioned or requested principally by Chinese but also Brazilian investors.

> Kenmare Resources' $450 m Moma titanium project is expecting to expand operations probably in 2012 to meet the expected increase in demand. Kenmare has a substantial resource un license, with the sum of the resources including 150 Mt ilmenite, 10 Mt zircon and 3.3 Mt rutile. Moma plans to develop in the the world's largest single mine ilmenite producer with a long-term output of 1.2 Mtpa ilmenite. At $120 per ton, this is the equivalent to $144 m per annum of the ilmenite alone. However, there is not expected to be any production growth in 211 since the Moma mine is currently working at maximum capacity. There are various other similar deposits on the Mozambique coastline that are dormant at present (Callaghan 2011:104 based on Allafrica 2010).

Heavy sands products (titanium, ilmenite, rutile, and zircon) are considered to be strategic in terms of national security by many nations, which go some way to explaining the very high level of some countries' interest in even marginal heavy sands concessions along the Mozambican coast. The idea is to secure future supplies against future shortages. Rademaker and Kooroshy (2010) refer to this aggressive mineral acquisition tactics as "resource diplomacy".

Strategic minerals present particular problems for home countries. Contracts generally involve binding off-take agreements; that is, the country in which the mining is being done must agree for a certain percentage (usually most) of the product to be exported in its unprocessed form. The downstream result is that there is no downstream; the host country remains in the position of being an exporter of raw materials. As mining is generally a capital-intensive sector, loss of downstream processing retards industrial development and slackens the jobs market. Mining usually has five times more impact on GDP than on the labor market (both expressed as percent contribution of mining to national statistics). Perhaps, an even more fundamental issue is why is Mozambique allowing mining and exports to expand so fast when it is well-known that world stocks of several strategic minerals will only last for another 20 years at currently projected rates of consumption. For those minerals, would slower growth in production be a better, more strategic choice?

Different levels of engagement and interest in community development and environmental issues exist among the heavy sands mining companies involved. Kenmare, for example, has a history of well-thought-out environmental and community practices, notwithstanding the fact that there have been some issues along the way. For example, they altered their plans for offshore loading to protect the reefs of the Primeiras and Segundas Islands, and declined to mine an area of indigenous forest. All told their environmental policies added an estimated 16% to the price of their investment. They have also been active in the EITI, the Extractive Industry Transparency Initiative, into which Mozambique was recently accepted. Their resettlement was done slowly over a period of more than seven years and did not produce conflicts of the level of Tete, although there were some issues. One ongoing issue is the Kenmare wish to return lands to the community as soon as possible. This laudable aim has not yet been realized due to technical issues; separating the sands into their component parts is the easy part. Remixing the sands and the silt and clay components and getting them to bond has not yet been achieved. The soil structure apparently does not easily reform once damaged. When the smaller components are re-mixed with sand they simply leach away, leaving a barren sand dune that cannot be returned to the community as it cannot be used for much.

This is of concern both environmentally and socially. If large swathes of land along the Nampula and Zambezia coasts are rendered barren, it will compound both environmental and livelihoods issues for the already extremely poor people in this area, reeling under the cumulative impacts of the *Oidio anacardii* epidemic in cashew, lethal yellowing in coconut, brown rot in cassava (their staple food), the collapse of the inshore fishery due to industrial and semi-industrial overfishing, and climate change effects such as increasing floods, cyclones and droughts.

However, at least Kenmare acknowledges the importance of return of the land and has had this enshrined in their operations plans and environmental management plan. In Tete, once communities agree to their lands being used for mining, it is gone for good. Interested stakeholders could make use of the Kenmare precedent to argue and lobby for a different approach to community land rights in the face of mining activities.

Then opening of the Kenmare mine has also brought about big changes in social structures and local communities. Topuito has grown from 7,000 to 21,000 people (Kenmare data), with all the changes that rapid growth brings to an area; water supply, sanitation, security, prostitution, overuse of resources, etc. A documentation of these effects and engagement with Kenmare on their mitigation may be another productive line of approach.

Other companies in the area do not demonstrate the same degree of care as Kenmare does with respect to their real costs of doing business. A visit to the Haiyu Mozambique Mining Company site just north of Angoche revealed very little environmental, community, or even legal sensibility. The site for the dormitories and work areas had been bulldozed, exposing at least four hectares of bare sand which blew away with the afternoon breeze. Local communities reported conflicts with some expat workers over women and jobs (who gets and who doesn't). Kenmare also reported that other competitors were removing sands from his concession area to construct their access roads, effectively robbing the company of raw material.

Canal de Moçambique noted on 31/1/2013 that local communities are mounting a challenge to the Haiyu Mozambique Mining Company project, claiming that they were not consulted during the project's environmental impact assessment. It appears that the public consultations were done at provincial level. The community also notes that they are not allowed to circulate freely on their lands anymore as the mine has occupied a large area. The article does not explain the full problem however. According to mining law, before operations can begin the company who owns the concession must obtain a DUAT, something which is legally impossible without a community consultation, if the law is being upheld. Apparently this was not done in the case of this mine.

2. Monapo Apatite Deposits

Vale has discovered one of the world largest apatite deposits in Monapo, apatite being an ore of phosphorus, used in the manufacture of fertilizer among other things. Though the seam is not as vast as the Moatize coal deposits that Vale is also mining, the DP Mines Nampula noted that resettlement will definitely be necessary. In late 2012 Vale announced internally that this project was on temporary hold following last year's fall in the world coking coal price which has reduced Vale's cash flow for the time being.

3. Rubies in Montepuez

Rubies have been known to occur in the Montepuez area since 2007, discovered and explored by artisanal miners. In 2009 the Mozambican company Mwiriti Lda. applied for and won a 34,000 ha concession to mine the area, evicting artisanal miners and eventually calling in the police. The concession for mining and exploration rights was "believed to be potentially one of the largest ruby concessions in private hands in the world".[92] Mwirite sold a 75% share in the concession to British Gemfields in February 2012, for $2.5 million. British Gemfields then floated an offering on the London stock exchange to fund its mining project in Namanhambir.

> [The] company currently employs about 200 workers, a number that is expected to rise to 500 when the mine is in full production…. The company claims that it has so far invested five million US dollars, and within the next five years the figure will reach 25 million….

A serious problem facing the company has been the invasion of its concession area by artisanal miners. This has led to repeated clashes between the illegal miners and the force protecting the area, consisting of company guards and members of the police. The worst incident occurred on 7 July 2012 when the guards opened fire on a group of some 300 artisanal miners, killing one of them and wounding two others.

According to a report on Radio Mozambique, the incident was sparked off by a sorcerer from the neighboring province of Nampula who claimed that he could "vaccinate" the miners against bullets. The miners hired him and his invincibility vaccine for 300,000 meticais (about 10,700 US dollars). Despite this large expenditure, some of the miners were not entirely confident that magic would work. The radio report said they took an extra 300,000 meticais with them to bribe the guards, if necessary. The radio's source said the commander of the protection force thought the bribe was "insignificant", and ordered the group to stay out of the mining area. An angry discussion between the miners and the guards degenerated into physical clashes, and eventually the use of lethal force (AllAfrica 2012).

British Gemfields continues to acquire ruby concessions, entering into a conditional agreement to buy a controlling interest in a ruby deposit adjacent to its Montepuez mine, in late 2012. Gemfields will pay $1.75 million for 75% of a new company, with the seller, EME Investimentos, holding 25%. The project would initially target one specific exploration license, but included the option to acquire 75% of a second license. The licenses cover about 18,400 ha and 14,900 ha, respectively.

Gemfields is also resorting to divide and conquer tactics to break community resistance to the project. As reported by the 27th of September 2012 *Notícias* newspaper edition, cited by Hanlon 2012, the company, in their efforts to push local communities off the land, built a monument to the traditional leader's ancestors.

The ruby finds have kicked off a boom in mining license applications, which means that nearly all Montepuez District has effectively been requested and/or concessioned (see maps in Appendixes).

4. Sectoral Issues

As noted earlier, mining and hydrocarbons are priority investment for Mozambique, trumping other forms of land use. As practiced, the discovery of mineral resources means loss of land and resource rights to the unfortunates on whose land it is found. These are exchanged for a dubious set of promises and resettlement "benefits", even though the letter of the law states that a mining concession also requires the concessionaire to complete a DUAT process before mining activities can begin. As if to intentionally confuse the issue further, the National Directorate of Mines' mapping system is not connected to National Directorate of Geology and Cartography's mapping system. Thus, the two are literally awarding concessions without the other being aware. In some areas one finds two or even three kinds of concessions superposed (hydrocarbon, mining, forest, DUAT, game farm, etc.—see mapping Appendixes).

The areas along the Nampula coast and around Montepuez are particularly worrying: the Nampula coast as heavy sands are known to be present distributed across wide areas; and Montepuez, as rubies are also widely distributed in this area. The team has knowledge of at least six productive mining sites outside the known mining concessions that are now owned by British

[92] www.reuters.com/article/2012/02/27/idUS55913+27-Feb-2012+PRN20120227

Gemfields. Since mining takes priority over all other land uses, if the ruby concessions turn out to be productive and heavy sands mining progresses along the coast, where will people live?

5. The Inconvenient Ones

The resettlement decree is new as of mid-2012. It attempts to provide standards and a framework for all resettlement for economic activities in the country, mandating such things as the type of housing that must be offered in specific detail. It is unfortunately vague about livelihoods, mandating only that livelihoods and living standards must be higher that before the move. It also states that the resettled community has a right to benefits of the investment but does not specify what those rights might be. It does not mandate any shareholding or ongoing benefit share for the local communities. Instead, the concept seems to be that the community is moved and compensated with one-off payments and investments. While this is a good start it does nothing to address the disruption of traditional ways of life nor does it compensate for the reduction in available lands and resources and the concomitant and inevitable limitations in how communities will make their living going forward. The argument that the increased availability of jobs compensate for the loss of other livelihoods has been shown to be false as most jobs are created for outsiders with higher educational standard and employment history.

The most insidious aspect is that communities have no real voice in the decisions about resettlement. Clause 6 of the Resettlement decree (see below) mandates the creating of a "*Comissão Técnica de Acompanhamento e Supervisão*" composed entirely of government officials, and Clause 7 below defines its competencies.

Artigo 7
Funções da Comissão Técnica

1. Como órgão multi-sectorial e de assessoria técnica, são funções da Comissão Técnica:

   a. Acompanhar, supervisar, dar recomendações metodológicas sobre todo o processo de reassentamento;
   b. Emitir parecer técnico dos planos de reassentamento;
   c. Elaborar relatórios de monitoria e avaliação do processo de reassentamento, tendo em conta os planos previamente aprovados;
   d. Propor a notificação do proponente de uma actividade para prestar esclarecimentos sobre o decurso do processo de reassentamento;
   e. Elaborar a proposta do Regulamento Interno da comissão;
   f. Propor normas complementares para a implementação do presente Regulamento.

This team supervises the implementation of the resettlement plan and gives technical opinions about its contents (if the same rules are used as for project approvals then the GoM will not approve something until all technical *pareceres* are favorable). Clause 9 (below at end of Arial typesetting) grants the right to approve the Resettlement plan to the District Government. No community involvement to this point. Look now at Clause 8 below.

Artigo 8
Outros Intervenientes no Processo de Reassentamento

1. Sem prejuízo da Comissão Técnica de Acompanhamento e Supervisão, participam no processo de reassentamento os seguintes intervenientes:

   a) Cinco representantes da população afectada;
   b) Um representante da Sociedade Civil;
   c) Três líderes comunitários;
   d) Dois representantes do sector privado.

2. A participação dos intervenientes indicados no número anterior tem em vista a:

   a) Mobilização e sensibilização da população sobre o processo de reassentamento;
   b) Intervenção em todas as fases do processo de reassentamento, incluindo a respectiva fiscalização;

c) Consciencialização sobre os seus direitos e obrigações resultantes do processo de reassentamento;
d) Comunicação as autoridades competentes sobre quaisquer irregularidades ou ilegalidades detectadas durante o reassentamento.

Artigo 9
Aprovação do Plano de Reassentamento

1. A aprovação dos Planos de Reassentamento é da competência do Governo do Distrito;
2. A aprovação dos planos de reassentamento, é precedida pelo parecer de conformidade emitido pelo sector que superintende a área de Ordenamento do Território, ouvido os sectores de Agricultura, Administração Local, Obras Públicas e Habitação.

Clause 8 states that five members of the affected population and two leaders have the right to "participate in all the activities of the resettlement", but this participation is defined as:

a. mobilization and awareness-raising of the population regarding the resettlement process;
b. intervention during all phases of the resettlement process, including the respective supervision;
c. awareness-raising during all phases of the resettlement process, including the respective supervision; and
d. informing the competent authorities about any irregularities or illegalities detected during the resettlement (ACIS 2012).

At no moment is any decision power conferred on communities or their leaders. The decision to advance with resettlement and how this is to be done is invested in the district government, advised by the provincial one. These structures are vulnerable to political party and governmental pressure; no Administrator who goes against government or party orders last long in Mozambique. A recalcitrant Administrator can be replaced from one day to the next in favor of one more pliant.

i. Recommendations

Palma will be one of the most important conflict areas over the next five years, with strong conflicts driven by elite interests with state connections, but also with opportunities and leverage points to achieve decent resettlement and land tenure outcomes. The reasons for some chance of a win-win are various, but include:

- An American investor, vulnerable to international pressure;
- US Government agencies (USAID and State Department) aware of the issues and in the case of USAID actively contemplating an Extractive Industry program;
- USAID and State Department with some leverage over Anadarko due to past, present, and future favors;
- USAID actively desiring to set up tripartite dialogue forum as they have done in Ghana (GoM, private sector, Civil society stakeholders) to look for win-win investments and dialogue about CSR;
- Anadarko sensitivity to resettlement issues even in the ENH area, as they will be tarred with the same brush should things go wrong.

With Anadarko, the goal will be for other stakeholders to open dialogue to allow for excellence in resettlement and eventually CSR. The **danger** here is the social equivalent of "greenwashing";[93] the **prize** is to establish a "best practice resettlement" program that ENH will have little choice but

[93] "Greenwashing … is a form of spin in which green [public relations] or green marketing is deceptively used to promote the perception that an organization's aims and policies are environmentally friendly"—http://en.wikipedia.org/wiki/greenwashing.

to emulate (as a result of joint lobbying that includes Anadarko). One major difficulty that exists is that Anadarko is literally besieged by groups who want to discuss corporate social responsibility, etc., with them. USAID in Ghana has had good success with the creation of tripartite dialogue forums to overcome this. The primary objective of a tripartite forum as conceived by the USAID Ghana's Local Governance and Decentralization Program (Kirkbride and Kenlay 2012) is to facilitate multi-stakeholder conversations (public, private, civil society) on social issues related to the Oil & Gas sector. The forum structure is intended to promote dialogue linkages between the local communities, local and regional government structures, the private sector and the national agenda for Oil & Gas (Kirkbride and Kenlay 2012). Though the Ghana project focused on CSR disbursement, the proposed tripartite forums for Mozambique will also address win-win investment opportunities and resettlement dialogues.

So what does the future look like? Kenmare will be a good dialogue partner for other stakeholders. Their earlier problems with production have apparently been sorted out and the mine will soon be at full production. This would be an ideal time to form a partnership with them to consciously develop best practice standards for negotiating with other partners.

Engagement with some interested countries will prove difficult, if they are usually closed to dialogue. Past experience shows that some competitors do the absolute minimum required in terms of environmental and social welfare and best practice. A provincial official in Nampula spoke eloquently about some countries' plans to create a social fund that would invest in the area but noted that these plans have not been realized yet. Corporate social responsibility funds may be another way to engage. Lastly, looking at local supply of goods and services as Kenmare has done via Kenmare Moma Development Association (its social responsibility fund) may be worth a look.

A line of approach if a company does not show way to engage is through environmental impact statements, all of which have a social component. Engagement to monitor and report on environmental-impact compliance does not require cooperation from the companies being monitored and support here may be most welcomed by MICOA, as it will help them fulfill their mandate. Capacity building here is another important and underfunded area.

Local communities need to build their capacity to lobby and negotiate. They also need direct support during negotiations and, later, for follow up monitoring. The suggested vehicle for this is a "Center for the Defense of Community Rights", as per the following chart (see logframe on p. 82). The center is built to support an existing network of land law activists CSOs in priority provinces, including Tete, Nampula, Cabo Delgado, and Inhambane (see LogFrame on p. 91).

As far as **minimum standards** during **negotiations**, the proposed Legal Defense Center for Community Rights and its partners and stakeholders must be aware that:

1. **The law must be followed in both letter and spirit**. Community consultants are at least two stages, separated by a month, **both** of which call for the presence of the investor. An offer is made during the first one by the investor and the community has a month to think about it and design a counteroffer, or agree, or refuse. This month is the window of opportunity for the CSO network to alert the Centre of Excellence and for both to quickly react in support of the community.
2. No Minutes of the Community Consultation *(Autos da Consulta Comunitária)* are signed by anyone without a **simultaneous signature of a binding legal contract** that commits both parties irrevocably to the terms and conditions of the land transfer agreement. (Signing must be simultaneous by all parties, investors cannot be allowed to say "OK sign everything and then we will sign the contract and send it back to you". The reason for this is once the community signs the *Auto* it comes into effect. But the contract requires both signatures).
3. The legal contract must be phrased in such a way that **transfer of the legal obligations of the contract is linked inseparably with sale of the asset** (the project to be implemented). There is some question at this moment for example about whether the promises made by Riversdale to the local Mualadzi Community will be kept by Rio Tinto following the sale to them of the asset; in fact it is not a question—the promises are not being kept and there is no real way for the community to challenge legally.
4. **Signatures must be made by those legally empowered to commit the company and the community**. It may be that Community Resource Management committee formation will need to be done beforehand or other legal steps taken so that a legal entity can be created with power to sign on behalf of a community.

5. All deals involve shareholding mechanisms or some combination of **shareholding** and **inflation and revenue-linked annual payments** (to allow communities to share in project growth and windfall profits). Ten percent shareholding non-dilutable is a minimum benchmark. Note that payments must be revenue linked not profit linked as no sane businessman ever pays 32% corporate tax on all of his profits. Most are experts at hiding profits by such means as reinvestment, transfer pricing, managers' bonuses and benefits, etc.
6. All documents to be signed are read out at a valid community meeting as defined by the Land Law before signing, and the **entire process is filmed and copies widely distributed.**

It may also be worthwhile asking for a legal review of the resettlement decree for a number of reasons:

- As a Decree of the Council of Ministers it has lower weight than a law, which is passed by parliament (*Assembleia da República*). The goal would be to look for potential conflicts upon which future challenges to the decree might be based and would use Land Law, basing arguments of the fact that the resettlement decree is specifically "resettlement for economic activities" but invokes (implicitly) eminent domain (state interests) to allow for involuntary resettlement. The definition of state interest in an economic activity may be vulnerable here.
- It might also be possible to mount a constitutional challenge to the decree.
- As some of the language is vague ("*Intervenção em todas as fases do processo de reassentamento*", Clause 8.2(b), for example) it may be possible to find ways to interpret this to the communities' advantage so that negotiations and implementation are based on a more equal balance of powers.

To create an opportunity to re-think the fundamental precept of resettlement, and that is that communities must exchange their land rights for something else. A possibility is to create a dialogue around not transferring land rights. Communities instead would enter into partnership with investors to explore mineral resources, maintaining land rights, owning shares, and moving back onto their land when the minaeral exploration is over. A change in concept like this would alter the dynamics of the whole land dialogue. As it is now, the destiny of land after mining is unclear. In principle, it returns to the original owners but as noted earlier the GoM is infringing on that and attempting to create a land reserve. One potential private-sector dialogue partner here is Kenmare, which already has plans to return lands to communities after mining occurrs, on a rolling basis as and when the mine path passes over an area and the area is mined out. This idea comes form an elderly resident of Mualadzi, who stated in interviews that he did not want to sell as nothing could recompensate him and his descendents for the loss of his land. Rather, let them use it and give it back again.

Appendix 4. Constraints and Opportunities for Forward, Backward and Collateral Linkages

The mega-projects, their ancillary industries and the collateral industrial and service industries are further hampered by poor infrastructure, inadequate inter-ministerial coordination, insufficient promotion, mentoring and financing of small and medium enterprises, some resistance by the mining companies against buying local inputs, impediments to the pro-active use of new railways to promote agriculture and agro-industries, slowness in the development of upstream linkages, and the failure by the contracts with the mining companies to obtain guarantees about investments in beneficiation and/or local pricing of outputs so as to stimulate local downstream industries adding value to the mines' output and, hence, promote the country's deepening industrialization rather than merely becoming a huge exporter of raw materials.

A. Poor infrastructure and inadequate inter-ministerial coordination

Besides the dire shortage of skilled manpower, the mega-projects and the start-up or development of upstream and downstream manufacturing and service industries are hampered by *(i)* inadequate infrastructures and *(ii)* the serious difficulties the government encounters in coordinating inter-ministerial investments and activities in a timely fashion. Besides the constraints due to inadequate roads, bridges and railways, many enterprises suffer frequent electricity fluctuations and cut-offs, which burn out motors and equipment, increase maintenance costs, and, in some cases, significantly reduce production, income and profitability. The latter prospect also discourages some from launching downstream projects to beneficiate ores.[94]

The plethora of sectoral strategies by government ministries and the inconsistent and often inadequate coordination of the policies and activities of relevant ministries (e.g., agriculture, transportation, education, health, environment, energy, and mineral resources) is a further problem widely recognized by many of the government and business leaders we interviewed as well as by the donor community. Though the provincial governments often have fairly effective sectoral and inter-sectoral private-public commissions,[95] the government's inability to synchronize well the policies and interventions of its ministries is especially significant at the central level. As the CEO of a large gas and petroleum investor averred, "ministries have little way to interact. Ministers will not intervene on any matter that touches another ministry beyond asking for a meeting." Thus, the inability to synchronize two or three interdependent industrial investments together with investments in rail and road transportation, social and health infrastructure, and timely education of the workforce is a critical problem. It hampers the government's ability to confront issues and take advantage of opportunities in a timely fashion and to convince investors that interdependent promises for the creation of skills, supplies and infrastructure will, in fact, be executed on time and as promised. Unless investors can trust that this will, in fact, occur and *on time,* the viability of simultaneous interlinked investments is precarious and the projects are apt to stall or never begin as happened with Mozagrius in Niassa (Åkesson, Calengo and Tanner 2009; Alberts and Öhlund 2001:1).[96]

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[94] For example, Kenmare studied the possibility of starting to beneficiate its ores but concluded that, at present, electric power supply was insufficient and too unreliable to make beneficiation profitable. When power improves, Kenmare will reassess the viability of local beneficiation.

[95] For example, in Tete, the Provincial Directorate for Industry and Commerce has a private-public linkage commission, which, together with the association of local merchants and industries, has helped to motivate, facilitate and create more than 120 firms that supply services or goods to the mining companies and others enterprises that have sprung up or expanded in response to the mining boom.

[96] "The Mosagrius Programme failed primarily due to poor advance preparation and planning, insufficient capital and financing for the program and weak monitoring of program implementation" (Alberts and Öhlund 2001:1). The promised electrical connections and access roads did not come. With no outlets for their crops, the farmers quit, disillusioned. Mozagrius also spurred up "serious levels of community dissatisfaction and potentially explosive conflict, in areas where the initial clearances and planting of new plantation seedlings has restricted local land access and put at

To speed the initiation of the numerous opportunities to open up new mines and downstream factories it is urgent to create integrated investment plans to benefit from the synergies arising when interlinked investments in mines, factories, infrastructure and training are synchronized in time and space. If so, profitability is reinforced and projects become attractive far earlier than otherwise. To achieve this, both private and public investments must be well designed and coordinated. Roads, railways, electricity, housing, port expansions, health services, training and higher education, all need to be financed and appropriately designed and, then, executed *well* and *on time!*

Unfortunately, planning, coordination and the timely execution of projects is a task too much for the present structure of egalitarian inter-ministerial committees that often have no minutes and often fail to meet if the chairperson is away. Such committees simply will not be able to cope with the scale and complexity of the interlinked investments when the boom becomes an avalanche of resources. Nearly all our interviewees from the government, industry and the donor community agreed that, for Mozambique, weak inter-ministerial coordination is a grave problem. One minister told Hanlon (2013) that "with the frenzy in the extractive industries, various ministries began to compete and act alone in an attempt to gain a lead. Each ministry seeks to offer more service than others. The result is the current lack of coordination." It hobbles strategic planning and the prioritization of resource allocations. The solution begins by recognizing the magnitude of the problems and lost opportunities that, without reform and an integrated strategic vision, would occur in the context of burgeoning mineral and oil revenues amidst a cacophony of urgent calls for services and investments in all sectors. Without prioritization inspired by a well-conceived integrated strategy, budget formulation would reflect disparate but influential shoves and pushes dampened only by the heavy weight of inertia in departmental budgets and percentages.

Reform would entail the creation of a well-staffed and active central command structure overseeing the economic ministries plus education and health and buttressed by *(i)* an analytical and national strategic planning unit capable of forecasting budgetary requirements strategically conceived plus *(ii)* an eminently influential and acknowledged political leadership capable of imposing order over ministerial jurisdictional disputes and covetous tussles over the fiscal pie. Overseeing, indeed, commanding the line-ministries, would require immense prestige and visible and real proximity to the president or prime minister. Only then might strategy—integrated and powerful—prevail.

Toward this end, the first step would be to create a supra-ministerial **Strategic Development Planning and Budgeting Unit,** preferably in the Office of the President or the Office of the Prime Minister to give it prestige and influence while preventing its focus from being diverted to day-to-day non-strategic issues as would almost certainly happen if it were ensconced in the Ministry of Finance. The unit would be charged creating Mozambique's first integrated five-year national development plan and also estimating annual revenues and expenditures in rolling budgets for each ministry including five-year projections, a task made very urgent by the coming boom in government revenues.[97] If the unit proved useful, government itself could transform this unit into a more powerful organ to ensure that the priorities and expenditures budgeted by the Ministry of Finance and executed by the line ministries conform to the national strategic development plan.

B. Upstream Linkages: Potential Suppliers and the Constraints

Besides the general infrastructural, human-resource, and other problems confronting most manufacturing and service industries, the creation of upstream linkages, especially for agriculture, is hampered by *(i)* sometimes inadequate efforts by the companies to encourage and mentor local suppliers and *(ii)* the near absence of incubator programs in Tete for small and medium enterprises till late 2012. The contractual non-discrimination clause for prices to be charged non-coal producers

risk local livelihoods strategies". As a result, the local population felt "extremely threatened and harmed by the first actions taken by the investors" (Åkesson, Calengo and Tanner 2009:12 and 4).

[97] The suggestion for a high-level strategic analytical and budgeting unit was made by the Ministry of Finance in December 2012.

for using the new rail lines also hamstrings the government's ability to define economically convincing agricultural development strategies for the northern and central corridors.

1. Inconsistent efforts by the mining companies to encourage and mentor local suppliers

Though the mining companies have developed many local producers and suppliers, their efforts are sometimes inadequate or inconsistent particularly for educational services and certain agricultural and animal products. For example, in Tete, the largest mining companies persistently fail to buy local beans, beef (for stew, not steak), goat meat, and freshwater Pende fish.[98] Instead, they usually import black beans, prime steak, and salt water fish. Only when their imports fail to come in sufficient quantities do they rush for local supplies.[99] Reportedly, the companies' food contractors often insist that local suppliers be able to supply their total demand instead of allowing them to supply a fraction of the total requirement to give them time to improve their equipment, systems and managerial skills and increase their reliability, quality and capacity. Another problem is that local fruits are off the menu, eschewed, though available and tasty. But, judging by the menus, eating in the local company canteen should be like eating in Toronto or São Paulo.

This problem has origins in the way the contracts were negotiated. For example, the government's negotiators failed to anticipate the mining companies' resistance to buying local and typically Mozambican foods. They can be excused. They were new at such negotiations. Now the lesson should be learnt. Negotiations require better inter-ministerial coordination. In the future, the government's negotiating team should comprise knowledgeable representatives from diverse sectors, including agriculture, and demand strong contractual guarantees that the companies will, in fact, nurture local agricultural suppliers and respect the nation's culinary customs. Moreover, the government knows that the responsibility to incubate and guide small local suppliers should be the express responsibility of the mining companies **and,** consequently, of their major contractors. Those responsibilities extend to training too as explained in the prior section about human-resource constraints (see p. **Error! Bookmark not defined.**).

2. Near absence of incubator programs for local Mozambican small-and-medium enterprises in Tete

Though Tete has about 120 local suppliers, many more opportunities would exist if local small and medium-size entrepreneurs were better trained and tutored and had easy access to finance. Unfortunately, far too little help has been available. The mining companies have helped to grow some firms such as Sérvico, an agricultural produce transport company, but most of the local suppliers are branches of international companies. Untill recently, except for efforts by the mining companies' and the Higher Polytechnic Institute's Scientific Research for Enterprise Incubation[100] which, in addition to offering research and computer services, had only helped two tiny firms (translation and cleaning services),[101] Tete had had no other programs to tutor and assist the creation of small and medium enterprises. In September 2012, the local branch of the Center for Entrepreneurial Orientation (COrE) was inaugurated as a project financed by the Banco de Comércio e Indústria and under the tutelage of the Institute for the Promotion of Small and Medium Enterprises (IPEME) within the Ministry of Industry and Commerce. The polytechnic's incubation program will also be expanded to 10 SMEs. Still, the region needs a larger and far more pro-active program in support of local SMEs with local entrepreneurs, something more like Anglo Zimele or MozLink I and II Africa (Anglo American and IFC 2008).[102]

[98] Interview with Provincial Directorate of Agriculture, 17/1/2013

[99] ibid.

[100] Centro de Incubação de Empresas.

[101] They got free electricity, free access to the Internet, and space on loan with a delayed repayment of the rents.

[102] For example, by January 2013, the Mozlink programs had helped to tutor, train and finance many of Mozal's 544 local suppliers.

3. New railways and non-discriminatory prices versus agricultural development

In theory, excess capacity on the rehabilitated railways could be used to promote agriculture and agro-industries along the east-west corridors and, once the coal mines use up that capacity, more could be created at a low per t/p.a. cost. Such a vision is, however, difficult to realize due to the limitations imposed on the prices to be charged non-coal producers for using the new railways, but the ownership structure and contract between the various owners of the line make. CFM's contract with Vale gives the latter, directly and indirectly, 51% control in the Northern Development Corridor (CDN) and 80% in the Northern Integrated Logistical Corridor (CLIN), which owns the coal terminal port and the link to it plus that between Moatize and the Malawi border. The contract also has a clause prohibiting price discrimination. Though that clause makes sense for the price applied to different coal producers, it constrains the country's ability to use the line aggressively to promote agricultural development and exports from the region to other countries or to the south via coastal shipping.[103]

The importance of the non-discrimination clause becomes clear when one realizes that the capacity of a rail line is not rigid: it depends on the maximum safe speed, the capacity of the wagons, the length of the rail sidings, and, consequently, the maximum number of wagons in a train (Woodrooffe, Ash and Champion 2000). Thus, rail capacity is a flexible, not a rigid concept. Moreover, once the main infrastructure exists as it does between Moatize and Nacala Velha, the investment[104] per ton of extra capacity is, with limits, far less than that for the initial capacity. Thus, in the absence of the non-discrimination clause and the powerful majority control of the line by Vale, Mozambique might be able to embark on a major agricultural and agro-industrial expansion program by increasing the line's capacity at a low cost per ton of extra capacity.

With that done, it could then charge farmers and agro-industries a low but still profitable price, a price sufficient to recuperate the low investment while also covering operating and maintenance costs. Vale would continue to pay what it does now but the investment in expanded capacity and the spur of low transport costs might provide a basis of an aggressive strategy to promote agriculture all along the line.[105] Moreover, the export market for agricultural products would not only be to other countries but also from Beira or Nacala south to Maputo Province, currently a grain importer. For example, in 2007, the coastal shipping service, Mozline, was using all of its northbound capacity but merely a **tenth** of its southbound capacity with a marginal cost less than 30% of the price/container charged for northbound traffic.[106] Inexpensive transport to the south to replace imported South African grain is a possibility worth investigating for both the northern and central corridors.[107]

It could well be the case that access to transport could spur agricultural development along the northern and central corridors. This could be thoroughly investigated (including a full value-chain analysis from farmer to client. If there is enough technical and economic justification to use the railways at a marginal cost as there is a likelihood that excess transport supply will exist, the

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[103] Under present conditions, the Moatize-Nacala line can carry 24 million t/p.a. though, for railways, capacity is a rather elastic concept. Of this, Vale plans to use up to 18 million t/p.a., Rio Tinto, 4 million t/p.a., and 4 million t/p.a. are reserved for passengers and general cargo.—interview with Caminhos de Ferro de Moçambique, 9/1/2013.

[104] e.g., in better safety and maintenance, more wagons and appropriate locomotives, higher payloads per wagon (if possible), longer sidings, and improved train control and dispatching efficiency especially by the use of modern electronic equipment.

[105] Think of it the other way. If the non-discrimination clause prevails though Mozambique pays to expand capacity, average cost per ton would fall for the entire system and, without doing anything more, the price/ton charged to Vale would decline—a windfall gain from Mozambique's unexpected investment, a prospect that would dampen enthusiasm for or even nix the strategy.

[106] Despite this, for a 20ft container, Mozline charged 63% of the northbound price for southbound containers though the marginal cost of using that capacity is less than 30%. With no discounts on a marginal cost basis by the rails and ports, at 63%, Mozline's price was still too high to attract much southbound traffic.— interview with António Massaniza, operations director, Mozline, 11 June 2007

[107] "Cabotage seems to be underdeveloped in Mozambique because transport by sea is almost half the cost of transport by road. However, due to more cumbersome procedures and delays for cabotage, demand remains low" (World Bank 2012:45).

government should then make pressure for this to happen, ensuring however that Vale’s exporting and profitability plans are not jeopardized. If this possibility was confirmed, the argument would be compelling and the outcome assured: economics, politics and the government’s strong hand would trump the contract.

C. Downstream Linkages: Potentials and Constraints

Many opportunities exist to develop downstream industries utilizing coal as a direct or indirect input. Some of the most significant investments are to burn low-grade coal or coalbed methane in coal-fired electrical generation facilities,[108] use coal to make coke (yielding ammonia and other by-products), mine phosphate, manufacture fertilizer (using phosphate and ammonia), and make iron and steel (using electricity and coke or pulverized coal) and cement (using coal, gypsum, blast-furnace slag, and limestone or nepheline syenite) (Callaghan 2012; Lehto and Gonçalves 2008). Figure 4 manifests the economies of scale arising from the synergies from nearly simultaneous investments and, hence, locally availability inputs and convenient by-products. For that, however, coordination is key (see next section about inter-ministerial coordination, p. 67).

The government must also be careful not to tie the country up in contracts that will limit or thwart the creation of added value through beneficiation of the ores or other products. For example,

> offtake agreements are becoming commonplace in investor funding agreements. These will limit Mozambique’s ability to beneficiate commodities, since the export of raw materials may be a precondition for investing. Although this could lead to rapid early economic development, it carries with it the threats of a resource curse and of low-job economic growth (Callaghan 2012: ii).

Thus, beneficiation and ancillary development must be a key goal of the government’s negotiators. Before beginning negotiations with a potential investor, they should research thoroughly the structure and financial incentives of each of the potential international investors to gauge its real interest in developing downstream industries, especially if it owns beneficiation plants abroad that might make it reticent to invest in competing capacity in Mozambique. Of critical interest to the nation is the willingness or not of a potential investor to commit (and under what circumstances) to develop downstream industries or, if not, to use fair international prices (defined against benchmarks) for sales to local downstream industries not owned by it.[109] In the latter case, penalties need to be defined in advance for predatory and prohibitive pricing that would block or hamper the development of those downstream industries (Coughlin 1989).

The creation of these ancillary industries and services (including education and training) eventually create developmental nodes with high-end engineering, foundries and electrical and computer systems maintenance and numerous other services and essential merchants (e.g., chemicals, hardware, industrial belts, and electrical components vendors) able to support many diverse manufacturing and service industries, e.g., agro-processing, steel rolling, pump and small motor manufacturing. Moreover, as the node expands, increased incomes raise demand while inter-industrial synergies and expanded capacity utilization reduce costs throughout the system. As this happens, the combination of falling costs and expanding demand broaden the gamut of potentially profitable investment opportunities. The main ways to stimulate the growth of a node are through the provision of efficient infrastructure to support industrial and support activities, the use of industrial free zones to encourage investors to locate there, linkage, tutoring and financial support for SMEs, and considerable investment in an educational and training infrastructure well-tuned to the needs of the types of industries one wants to attract. All of these appear as recommendations in this study.

The government’s negotiators should also be alert that the technologies created will ensure achievement of major economies of scale and that the business structure will avoid the possibility of

[108] “There are a series of proposals to build coal-fired power generation facilities, though none are likely to be operational until at least 2017” (Hubert 2012:4).

[109] Mozal’s utter failure to inspire and encourage the development of downstream processing of aluminum in rolling mills and high precision foundries or even the simple manufacture of aluminum pots and pans illustrates the problem.

predatory pricing that would discourage others from beneficiating their ores or force them to invest in sub-optimally sized plants to do so. For example, an optimal business structure for coking Mozambique's high-quality coal might involve joint investment by various coal mining companies, thus avoiding predatory pricing for those services while also achieving economies of scale.[110] The logic of this is illustrated by Eni and Anadarko's agreement to "build LNG facilities together, which could help cut costs" (*New York Times* 25/1/2013). The possibility of monopolistic pricing for *local sales* is another concern, for example for fertilizers. To avoid that, any future contracts for phosphate mining and local fertilizer production must include strong clauses to prevent monopolistic pricing or even require cost-plus pricing for local sales, especially since the c.i.f. price of imported fertilizer (the only competitor) is far above the f.o.b. price of exported fertilizer. Unless controlled by government shares or contractual obligations, the first factory to manufacture fertilizer would almost surely exploit its monopoly position by pushing up prices way above costs, thus abusing both wholesalers and farmers and slowing the growth of agricultural productivity per hectare.

Though negotiating to maximize the use of local resources and stimulate beneficiation and, consequently, a host of ancillary industries should be high priority, the donors' programs about contract negotiation emphasize the fiscal aspects of the negotiations and ignore the need to train and mentor Mozambican negotiations to defend competently their country's interest in rapidly developing upstream, downstream and collateral linkages. For example, a recent analysis of donor assistance to Mozambique observed that "work is ongoing on the legal/contractual framework but technical support will be needed by government in actually negotiating them" (Extractive Industries Taskforce 2012:3). However, more emphasis is required on training Mozambicans to defend their country's interest in beneficiating the raw materials, the only true path to development.

Given that, to ensure robust development with profound upstream, downstream and collateral linkages plus strong safeguards to protect people and the environment, the government's negotiators must have multidisciplinary skills, clear goals, and flexible and well understood tactics for bargaining at good advantage with the multinational mining, gas and perhaps petroleum companies. A myopic focus on legal, fiscal, resettlement, and technical mining issues and expertise suffices not. Though those topics are indeed important, only a strong, informed insistence on the promotion of strategic economic linkages can avert the curse and ensure that the benefits ramify spreading income and propelling ample growth and diversified training and education. Hence, not only must the training program for the negotiators be rethought but so too the composition of the negotiating team, the caliber, skills and multidisciplinary vision of the team leader, and the structures to which he or she reports. Have the negotiating teams mounted by ENH and MIREM possessed the strategic vision and full gamut of skills required? During past negotiations, have important issues been underplayed or ignored? What can be learned from past contract negotiations? Is it best to have a specialized line ministry in charge of multifaceted negotiations with such wide and profound strategic implications for the nation's development? In view of the objectives, how well has the present structure worked? If there are deficiencies how best can they be rectified through training, team composition, and, perhaps, restructuring of responsibilities? These questions need evaluation as the answers have immense relevance for the future. But examining the past and learning to improve requires openness, transparency and a willingness to hear, nay, eagerly welcome constructive criticism.

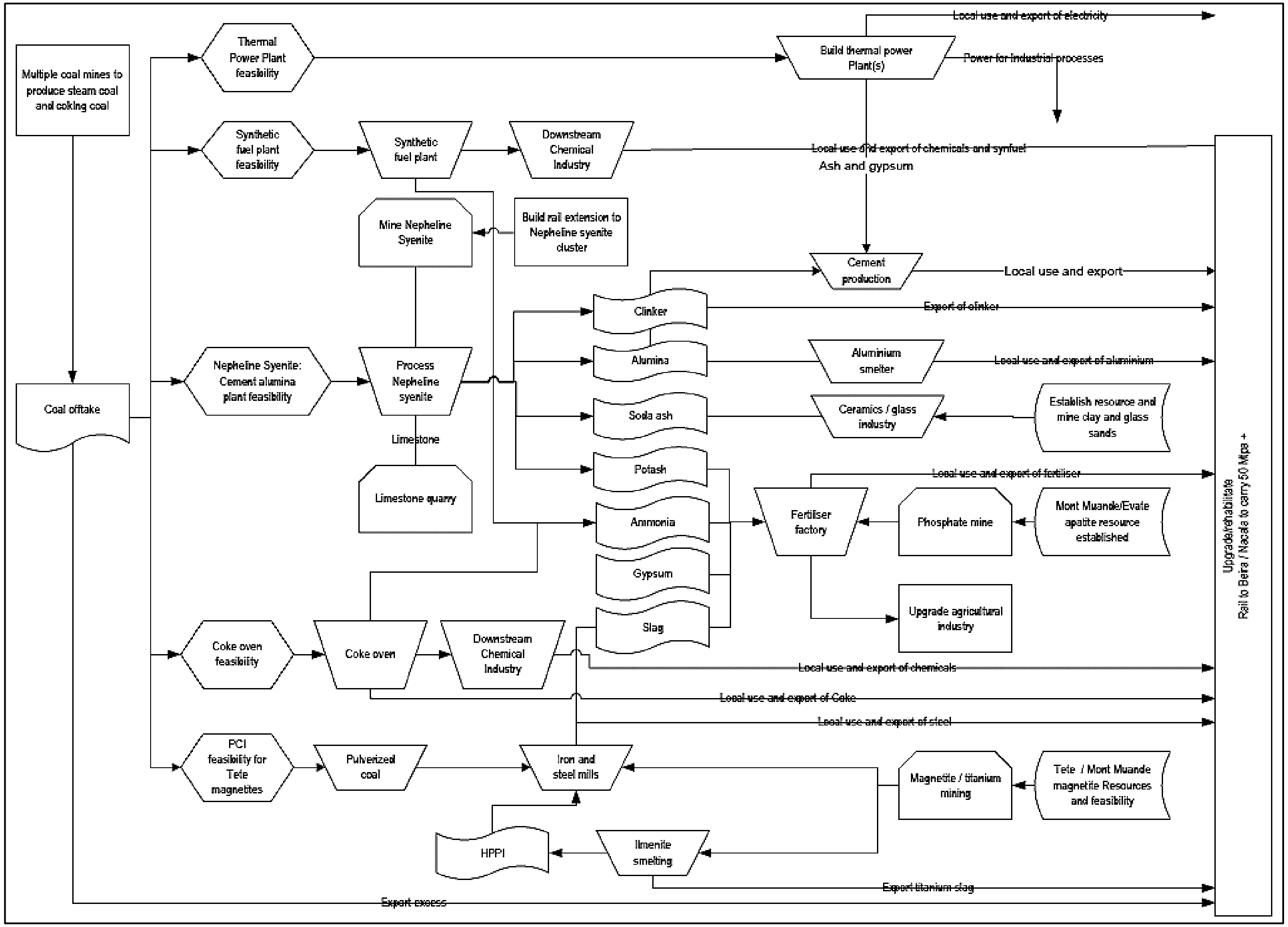
The potential for grave negative downstream linkages—environmental destruction and poisoning—must also be evaluated, anticipated, planned for, regulated and negotiated about with the potential investors. The technologies used by the extractive industries and chemical and industrial processes employed by the downstream industries that utilize their products and by-products can involve serious environmental disruption and poisoning that harm workers, fauna,

[110] "Coking coal demand, on the other hand, continues to be driven by large investments in infrastructure in India, China, Brazil and the Middle East, which has raised the demand for steel production around the world. World coking coal demand is predicted to grow by 70% to 80% over the next 15 years. And Mozambique is in a good strategic location to serve these markets" (Biggs 2012:15).

adjacent communities and those downstream or downwind even hundreds of kilometers away. Often, adequate technologies exist to control these deleterious effects but the government's contract negotiators must have thoroughly researched the technological options and seek guarantees that the technologies to be installed by the investor will be very modern and that the monitoring and inspection systems be thorough and adequate, all this to ensure that the environment, people and fauna are well protected. Moreover, MIREM and the Ministry for the Coordination of Environmental Action[111] will need to train and equip inspectors very well to monitor chemical emissions.

[111] In the opinion of the CEO of a major gas and oil company, MICOA only has a capacity to audit waste management and kitchens, which is insufficient.

Figure 4. *Coal industry: Potential linkages in Mozambique*



Source: Callaghan (2011:169)

D. Ways to increase collateral benefits from extractive industries mega-projects

The collateral benefits for people and other non-mining companies stimulated directly and indirectly by the investments and production of the EIs arise due to *(i)* derived demand from the income multiplier effects of their local expenditures and *(ii)* the increased and new supply of a wide array of services and productive capacity created to serve the EIs, their contractors, and the numerous new industries, service industries, and commercial ventures. With immigration and local salaries, the demand for housing, hotels, restaurants, education, communication, construction, food, transport services and commercial sex surges propelling a concomitant growth in infrastructural projects for roads, electricity, communication, sewerage, water supplies, and health services. All this incites a construction boom, frenetic but still insufficient. And, as demand skyrockets, so do local prices—e.g., for food, accommodation and other basic services.

Demand races far ahead of supply, and the infrastructure for nearly everything is overstretched or wears out fast. And people pay, some more than others. With burgeoning demand, most businesses grow and others start up. Families with one or more well paid members gain. Some farmers do too. But families with stagnant incomes feel the squeeze of high prices, insufficient and delayed transport, and long lines at understaffed health centers. With an expanding *nouveau riche,* many of whom are foreigners, tensions too can arise. Therefore, in this context of fast immigration, soaring wealth, worsening income disparities, overwhelmed infrastructures, and burgeoning construction and business growth, what can be done to increase collateral benefits for people and non-extractive industries?

1. For non-extractive sectors

To enhance the benefits for the non-extractive sectors, efforts should focus on both **demand** and **supply.** And, in both cases, the existence of a local unit for the promotion of linkages can be very useful.

To grow the demand for services and products, government can scrutinize present imports of inputs and services by the EIs and their contractors to identify those that might be supplied by local firms, e.g., construction, food, maintenance, repairs. After that preliminary vetting, the next task is to put potential suppliers in contact with the procurement divisions of the mining and extraction companies or, if necessary, to find out why certain local supplies are persistently rejected. Do significant problems exist with the price, quality, packaging, quantities offered, or the reliability of deliveries? Or, are the excuses given just flimsy evasions, e.g., inability to supply the entire quantity, insistence on foreign culinary tastes, or loyalty to foreign suppliers despite the competitive price and quality offered by the local supplier? If so, the parties must negotiate a solution. For that, wherever a local linkage program exists, it would be a logical third party to the negotiations. If the problem is big (e.g., meat, fish, local fruits, computer repairs) and the mines repeatedly procrastinate, make and break promises, or prove utterly unreasonable and obstinate (hopefully, a rare situation), then the government's strong hand may need to be revealed to break the impasse. If adamant, that hint should suffice to begin the shift to local suppliers.

The other way to enhance the benefits for the non-extractive industries sectors is to increase the local supply of goods and services by building up local suppliers' managerial and technical capabilities, including their ability to offer goods or services on time and with consistently high quality. This requires good management, financial assistance (or risk-capital equity investment), proper technology, and well trained, skilled and disciplined workers. It may also require business tutoring and close liaison with the buying companies be they the extractive companies or any of the gamut of others that mushroom in the rich soil of the boom. This then suggests the need big investments in technical and professional training and for local linkage programs for small and medium enterprise development. However, the goal of such a program should be wider than just creating links between SMEs and the EIs. Recognizing that in a boom environment the multiplier effects are both direct and indirect, a linkage program should take a comprehensive approach by focusing on how to assist SME entrepreneurs to take advantage of the wide diversity of new business opportunities.

Finally, since the scarcity of skilled entrepreneurs, workers and professional is key to business success, the ability to increase the supply of services and products can be greatly amplified by large, well-conceived investments in education and training that prepares the right types of artisans, technicians and professionals truly required by the extractive and other industries and various service companies.

2. For basic services for the population (e.g., roads, water, sanitation, electricity, gas, health, education, etc.)

The urgent need to increase basic services early during the investment, construction and initial production creates a financial dilemma: the bulk of the revenues from a mega-project in mining or oil or gas extraction comes ten or more years after thousands of workers come, construction starts, and the demand for basic services and their infrastructure begins to soar. To build that infrastructure, train staff and offer services requires money, money that can be raised partly from early revenues received from the project investor, increased value-added and income taxes on incomes and non-exempt expenditures, and international loans or aid—a combination that must be carefully calculated and negotiated on the basis of good projections and plans. And their execution requires good coordination and synchronization between ministries, local governments and the private sector though the central and local government's capacity for such is weak.

The timing of revenues and investments in basic services is, therefore, critical and the costs of poor synchronization can be great in missed opportunities and human suffering. Delays in the build-up of health-care and educational capacity imply more suffering and deaths and more jobs going to foreigners instead of nationals. Delays in expanding and stabilizing the supply of electricity reduce production, revenues and profits; and delays in building roads and bridges waste fuel, increase repairs, and impede the swift resolution of numerous other problems, all of which cost money.

To reduce these various difficulties requires coordination at many levels. The negotiators must know how much revenue needs to be brought forward to finance such investments. The Ministry of Foreign Affairs together with the Treasury must calculate and negotiate well for loans and donations. And the line ministries and local governments must time their interdependent activities and investments well.[112] Though not the only bottleneck for local absorption, the scarcity of local skilled and professional workers and health services are critical and merit a big fraction of the resources dedicated to development. However, even those require careful planning and fairly accurate projections of the requirements.[113] The other infrastructural investments should be sequenced to minimize inconveniences and costs.

[112] See section about interministerial coordination, p. 26.

[113] See sections on human-resource constraints and social and health impacts, pp. 25 and 35.

Appendix 5. Human-Resource Vision and Principles

The following **HR vision and principles** are recommended for the nation and grow out of the above best practice analysis and concepts.

Vision: Over the next ten years, Mozambique will develop its human resources to be the best in Africa, capable of creative, environmentally sustainable solutions to technological and industrial issues as well as broad-based democratic input into innovative solutions to the governance, strategic and political challenges facing the country for the duration of the resource boom and beyond.

Principles

- Every Mozambican is a key human resource and, as such, has rights to a fair share of the resource boom’s benefits as well as responsibilities to learn and contribute to its management.
- There is a role for everyone, and policies and strategies must address that role. Everyone has the responsibility and deserves the support needed to learn the skills **and attitudes** that will make them both employable in a fast-growing and changing economy and able to contribute to democratic governance.
- Strategic planning on the part of government is necessary in order to adequately guide the educational sector response.
- Private sector companies have important roles to play as well, with some already demonstrating ideas worthy of emulation.
- Use infrastructure development needed for industry to drive technology transfer, supported by and appropriate labor and educational policies.
- Build assets (human and physical capital) faster than national wealth is depleted (by mining and selling of minerals and hydrocarbons).
- Learn from the rest of the world, but take it one step further. Mozambican and indeed African core values of family, land, and nature can be expressed in its industrial development, by emphasizing sustainability, environmental sustainability, and social justice. The disadvantage that infrastructure is not yet developed offers and opportunity for Mozambique to avoid the sustainability errors of the rest of the world.

Appendix 6. National strategies for HIV&AIDS, TB and malaria: Brief comments

A. National HIV&AIDS strategy (PEN III) 2010-2014

The key components of the PEN III are reduction of risk and vulnerability, prevention, care and treatment, and mitigation of the consequences of HIV (CNCS 2010). For effective implementation the PEN III aims to: improve **multi-sectoral coordination** through the leadership of the National AIDS Response Council (CNCS); **monitoring** and **evaluation** through an M&E plan that accompany the PEN III and also led by the CNCS; **operational research** to search for solutions and document success (best practices); **communication** for behavior change; **resource mobilization** with the international community and civil society; systems strengthening to guarantee a supply of qualified and motivated personnel, existence of infrastructure; and appropriate support mechanisms.

Progress has been made over the years with differing degrees of success in each of the above aims, but a lot is still needed to make impact at national level. For instance:

In the area of multi-sectoral coordination, the growing private sector (particularly in the area of EIs) potential to contribute to national efforts has not been fully taken advantage of, yet their role in the spread of HIV and other communicable diseases is internationally recognized. Another area, identified in the PEN II evaluation, as needing improvement, is the adoption of mechanisms for the strengthening and establishment of sustainable interaction with local partners, especially those which can add value to the work carried out at provincial level

In the area of prevention, the PEN III prioritizes high risk populations (MARPS), particularly among girls; promotion of the consistent use of condoms, including female condoms; promotion of social and behavior change; prevention of vertical transmission (PMTCT); bio-safety; and male circumcision services.

To date, interventions targeting MARPS are limited in scope and geographical coverage, totaling only 5% volume[114] of all implemented HIV programs even though MARPS are contributing to at least 19% of all new HIV infections.

Condom use is inconsistent due to various reasons including lack of access, lack of knowledge on proper use and behavioral reasons;

Male circumcision is lagging far behind national targets due to human resources needed to perform the surgical procedure. Even with the task being shifted to nurses and medical technicians, the procedure takes 15 to 30 minutes allowing low volumes of circumcision procedures per day.

Communication for social and behavior change activities have so far not been adequate, with a tendency to use mass media and very little community mobilization.

B. National TB program[115]

In recent years, national response to the pandemic has shown some improvements, showing an increase in the number of reported cases over the past decade, with an annual increase ranging from 2% to 15% in the last five years. This increase is due to the expansion of Direct Observation Treatment Service (DOTS)[116] services, which have doubled in the last decade. DOTS, however, is reaching only 40% of the country’s population. Another noted area of success was in the treatment of BK positive cases where Mozambique joined 14 of the 22 disease-burdened countries in reaching WHO recommended coverage of 85% of patients in 2011. The revitalization of the MoH APES program has potential to dramatically increase community outreach activities such as early detection and active case finding. However, the APES program lacks funding and thus only a few districts have it and each of these districts have only 25 APES.

Even with this progress, TB control and prevention in general is inadequate in terms of coverage, access, and quality of care, mainly due to the lack of infrastructure and a shortage of human

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[114] PEN II evaluation.

[115] Programa Nacional de Controlo da Tuberculose.

[116] An internationally recommended strategy for TB control.

resources.[117] For an example out of 1500 existing health care facilities in the country, only 300 have capacity for laboratory diagnosis and less than 100 have x-rays.[118] There are also difficulties in efficient management of stocks of TB drugs in deposits, which leads to constant disruptions at health facility level to the detriment of patients. Mortality of patients in treatment remains high, up to 15% in some provinces.

The MoH is currently developing the national TB program strategy (PNCT) for the next five years, 2013-2017. The consulting team was able to access the draft plan of 26th November 2012. While the plan touches on all the key areas to improve early detection, increase access to treatment and improve drugs stock management as well as engaging the private sector companies in the DOTS program for their employees and their family members, it does not seem to explore the potential partnerships that can be developed with the EI companies especially in reaching out to the surrounding communities. The strategy does not seem to tap into the potential funding opportunity that the mining sector can bring into local TB program implementation. In general very little is said about silicosis and black lung disease or how these will be managed despite general acknowledgement that they will likely contribute to TB prevalence.

C. The national malaria program[119]

The current national malaria strategic plan runs from 2012 through 2016. The focus during this period will be put into a) increasing districts capacity to manage malaria control activities, b) early diagnosis and treatment, c) community education on malaria prevention and treatment, d) development of systems for surveillance, monitoring and evaluation and reporting including strengthening districts capacity for reporting.

The plan mentions that MISAU will aim to build strong PPPs with the private sector. It also mentions engagement of the private sector as one of its key strategies for the implementation of the plan. However, the activities under this strategy only focus on mapping of partners, planning meetings and coordination of private sector activities. The plan lacks clear activities on how the PPPs will be created and in general it lacks proactive action to get more interest and investment from the private sector in support of the national malaria program.

[117] USAID Mozambique profile: http://transition.usaid.gov/our_work/global_health/id/tuberculosis/countries/africa/mozambique.pdf

[118] Source: interview with MoH PNCT senior official.

[119] Programa Nacional de Controlo da Malária.

Appendix 7. Emerging opportunities for public-private sector partnerships & best practices

While most of those interviewed by the consultants were aware that the EI in Mozambique is potentially bringing both (negative) health impacts and opportunities, very little is being done to harness those opportunities because of lack of awareness and institutional capacity, lack of “access to tools, evidence and good practice examples needed to influence the way in which health is considered (and acted upon) as part of policies, plans, and decisions taken in the natural resources sectors” (WHO 2010:1). To adequately cope with the boom, the MoH needs a high-level strategic health impact management system in order to anticipate/ identify, manage and monitor public health impacts affected by the development and growth of the EI boom. The system has to include strategies to “mobilize or influence resources so as to address those health impacts and measure and report on the overall health and development benefits ... of wider investments in the sector” (WHO 2010:2). The development of such a system calls for a:

- country wide comprehensive health impact assessment (HIA) to identify the relevant health impacts;
- strategic health-action plan; and
- monitoring, surveillance and reporting systems.

The following are emerging opportunities:

- International experience has shown that the EI participation in Public-Private Partnerships (PPPs) can realize substantial health benefits not only for the company, but also for its public sector partners and communities. The extractive industries can actively get involved in health service delivery and improvement of health conditions in the area within which they operate. There are examples of international “best practice” case studies published by the Global Health Initiative-Economic Forum and the Mining Health Initiative. **Appendix 6** (p. 78) provides examples of prevention and treatment of HIV & AIDS, tuberculosis and malaria, including some from Mozambique.[120]
- An opportunity exists for EI projects to generate significant benefits for health and health systems through effective application of EI revenues to address gaps in the health sector. Botswana’s internal regulations on expenditures from its sovereign wealth fund mandate expenditures on investments only, but health (as well as education) are ruled to be investment sectors, being investments in human capacity. Such health investments might encompass:

- Increasing health sector human resource capacity;
- Increasing health infrastructure;
- Strengthening monitoring and evaluation capacities of MISAU, and;
- Providing a great opportunity for the sector to create multi-sector partnerships involving the private sector.

Both 1 & 2 above provide an opportunity for the country to create robust health programs nationwide but particularly in the EI provinces that build on local and international “best practice” but also provide space for piloting and scaling up of new technologies and interventions that have potential to make significant health impacts in the fight against HIV & AIDS, TB and malaria thus

[120] https://members.weforum.org/pdf/Initiatives/GHI_Olyset_BHP%20Billiton.pdf

ensuring a greater role for the private sector to contribute to the Millennium Development Goals 4, 5, and 6.

Appendix 8. LogFrame for possible USAID interventions

Specific Objectives	**Results (outputs)**	**Key Activities**	**Indicators and *Assumptions***
1. To empower Mozambique's citizenry and institutions (especially women and youth) to take full advantage of the increased economic opportunities stimulated by EI development *and* fulfill the essential role(s) that informed civil society plays in a developing democracy.	1.1 Mozambique's educational institutions have the trained teachers, professors, and equipment they need to produce employable students for mining, hydrocarbon, manufacturing, and agricultural sectors.	1. Support for manpower requirements projections and educational advance planning in the Ministry of Education, as follows. Support MINED to: • Conduct an initial manpower skills and requirements census and projections survey for HR needs over a 10-15 year future scenario, with special focus on large employers. • Conduct periodic follow-up manpower surveys to update projections on a regular basis. • Conduct baseline and follow-up surveys about present and projected courses and numbers of students in artisanal, technical and higher education institutions; • Compare the data generated in steps *a* and *b* to estimate the gaps or surpluses per profession or category in view of the existing educational expansion and training plans; and • Divulge results to educational institutions both private and public as well as companies and other stakeholders. and; • Gain the cooperation of the artisanal, technical and higher education institutions to develop curricula to cover the gaps while avoiding an overabundance of specific skills. 2. Identify, support and complement the efforts of other stakeholders (particularly the G19 and private educational institutions) with a matching grant/ loan fund accessible to educational institutions for infrastructural and HR investments (upgrading of teachers, workshops, water, etc.). This fund is disbursed based on a peer-reviewed competitive grant-making procedure to be managed by a joint MINED/contractor team to allow for coaching and mentoring in grant management for education to occur. 3. Educator exchange and mentoring program using U.S.-based resources for university-level teaching and administration (contracting or access to USG resources).	**Indicator(s):** 1. Dynamic of number of qualified technical subject teachers at "*técnico medio*" level and higher, discriminated by degree, gender, and topic (MINED statistics). 2. Concordance between HR needs and assessment and baseline study results. 3. Baseline and monitoring interviews with educators in select provinces (Tete, Cabo Delgado, Nampula, and Inhambane) about teacher quality and availability. 4. Baseline and monitoring interviews with educators in select provinces (Tete, Cabo Delgado, Nampula, and Inhambane) about lab equipment availability and investments made. ***Assumptions:*** 1. Teacher quality and availability are fundamental constraints on the production of employable students. 2. Availability of lab equipment is a key constraint in technical education. 3. Exchanges will result in increased access to world 'best-practice" and innovative technical training and administration.

Specific Objectives	Results (outputs)	Key Activities	Indicators and *Assumptions*
	1.2 Mozambican students and citizens have the training they need to enter successfully into employment and self-employment into the EI and other productive sectors of the Mozambican economy.	1. Identify stakeholders (Forum for African Women Educationalists—FAWE with the Mozambican branch called FAWEMO, NGO's, faith based institutions, etc.) who are targeting girls scholarships, and support them with a bursary fund for grades 7-12 as well as higher level *technical* training. 2. Support to local schools (via MINED) for bursaries for girls, selected by school committees and parent associations. 3. Monitor and analyze results in terms of level of effort for each of the two modalities above; prepare a report for internal use to feed program development dialogues. 4. Provide additional financial support to the World Bank HEST Project Bursary fund (already established and running but not sufficient to cover needs) to allow for higher level (university and up) technical training for men and women. 5. Provide additional financial support to the Forum for African Women Education (FAWEMO) girls/women's science promotion programs. These focus on creating more interest and confidence and willingness for girls to enter the science fields. This will allow best-practice exchange with from other African countries.	**Indicator(s):** Quantitative; increase in trainees discriminated by type of training and percent of girls/women ***Assumptions:*** 1. A focus on bursaries for girls will assist families to overcome financial and cultural discrimination in education of girls at post-primary levels. 2. Faith based institutions are often the most reliable partners for fair selection of truly needy candidates. 3. Selection of girl candidates for scholarship by local parents' committees may reduce the tendency to give scholarships to the powerful rather than the needy. 4. Monitoring will allow results comparison between these two modalities leading to decision(s) about advantages and disadvantages of each one. 5. There are cultural impediments and teaching delivery impediments (for example attitudes and instructional materials) to girls' participation in sciences that the Africa-wide FAWEMO network has experience dealing with.
	1.3 Government has staff of sufficient quality and quantity, capable of negotiating, regulating, monitoring, and managing revenue streams from the EIs.	1. Support other G19 players who are advising and giving the GoM technical assistance on this. In addition, the following gaps exist: 2. Finance the Tax Authority to allocate funds to implement a project aimed to train fiscal auditors on different financial tactics used by companies for transfer mispricing, tax avoidance and other fiscal issues related to the extractive industries. This could be done in collaboration with Chr Michelsen Institute (Norway), Petrad (Norway) and Tax Justice UK. 3. Finance scholarships/training programs to staff from the Ministry of Environment (MICOA), *Direcção Nacional de Minas* (DNM) and the Ministry of Trade to pursue courses related to EI management. 4. Support the development of statistical capacity of MIREM through financing affiliation with the Joint Organisations Data Initiative (which has its	**Indicator(s):** Quantitative; no. of trainees discriminated by type of training delivered and percent of women ***Assumptions:*** 1. Long-term investments in fiscal/ taxation capacity will add value compared to other development agencies which focus on immediate outcomes and less on necessary development of human capital. 2. The Tax Authority, the Ministry of Environment and the Ministry of Trade are

Specific Objectives	Results (outputs)	Key Activities	Indicators and *Assumptions*
		own funding for capacity building – see www.jodidata.org/about-jodi/knowledge-transfer.aspx). This is a way for MIREM to increase its capacity in an important way for a relatively small amount of funding.	directly involved in the EI sector, yet lack sector-specific training. 3. Some companies have been giving out scholarships to Mozambicans but coverage is uneven as trainings offered tend to respond to the companies' interests and not to address the country's problems (thus gaps in taxation, trade, and environmental training). 4. It is essential to have high-quality statistics as well as some ability for the government to use those statistics for analytical purposes for policy decisions as well as for public accountability.
	1.4 Civil society organizations have staff capable of negotiating, monitoring, analyzing, 'watchdogging' and communicating with other stakeholders about EI issues.	1. Create a capacity building fund (based on a competitive disbursement mechanism) for the purpose of training grants for staff of Mozambican CSOs, universities, and the Civil Society Platform on Natural Resource and Extractive Industries; grants to be used for medium and longer term training and specifically for the purpose of the development of 'champions' (defined as people with proven commitment and capacity to engage with EI sector stakeholders from the civil society perspective).[121] 2. Finance, in cooperation with selected 'champion organizations' (selected on the basis of proven commitment to address the key challenges of the EI sector and proven internal transparency and accountability mechanisms) and international partners such as Columbia University, a series of shorter in-country trainings in EI governance, advocacy, best-practice from other countries, analytical skills, etc. for civil society stakeholders. 3. Establish a MoU with a leading media institute in Mozambique and support and finance it to create a laboratory and national network (including local media) for training in collaboration with well-established institutions overseas. 4. Via the institute, develop a program of intensive short trainings in-country for journalists on the entire value chain of the Extractive Industries, lectured by experts in the field from Norad, Columbia University, Revenue Watch	**Indicator:** Quantitative; no. of trainees discriminated by type of training delivered and percent of women ***Assumptions:*** 1. Solid analytical work is key for advocacy success. 2. CSOs in general including media are not yet meaningfully exercising the available opportunity to act as effective watchdog in the extractive industries. They suffer from limited analytical capacity to understand the political economy of the sector, to carry out research, and to proactively undertake timely advocacy work. 3. Media coverage and analysis will improve as a result of technical training for journalists; current issues with poor reportage are related to capacity not will. 4. Experience shows that land law and natural resource rights dissemination must be linked

[121] There are various options for such courses: the Revenue Watch Institute (RWI) delivers courses in New York and in many other African countries (Tanzania, Uganda and Ghana). The Norwegian training centre Petrad also provides courses in extractive industry governance in Stavanger (Norway) and in many other places (Ghana, Angola, Zambia, South Africa). Closer to Mozambique is the Durban-based Centre for Civil Society at the University of KwaZulu Natal that gives training to CSOs and unions in various topics related to the extractive industries.

Specific Objectives	Results (outputs)	Key Activities	Indicators and *Assumptions*
		Institute, local CSOs etc. Training would include classroom as well as a field assignment, a (3 month) investigation into a relevant topic (e.g., taxation issues, Corporate Social Responsibility, Resettlements, revenue management, etc.) with coaching support; final products to be published and disseminated to influence public debate and policies.	with effective legal and negotiation support and advice to be effective. As a standalone strategy they have not had many tangible results so far. Thus they are not included here in capacity building but are included in a package of land rights activities that include direct legal and negotiation support for affected communities.
	1.5 Widespread awareness and participation in the national EI governance debate convinces the GoM of the importance of legislating transparency on contracts, taxation, receipts, and expenditure of EI funds, and of defining civil society mechanisms for input and dialogue.	1. Fund and support technically an extended program of public awareness on EITI involving a coalition of media, CSOs, and the EITI itself to reach the broad national audience, with the goal of broad-based understanding of EI governance, transparency, and accountability issues across all levels of society. The lead coalition implementing agency here to be chosen according to 'champion organization' criteria described above. 2. Specific support for local media and community radio to divulge in local languages; this reaches the broad audience as well as opening opportunities for the development of locally based 'champions' to emerge and gain experience in EI dialogue. 3. Assist the lead organization/coalition to identify and contract a spokesperson (singer, athlete, a non-politicized national figure) to be the public face of this campaign. 4. Assist the lead organization/coalition to establish baseline and monitoring public opinion polling to gauge the results and penetration of campaign. 5. Assist the lead organization/coalition to establish an Interactive Institutional learning program to allow for constant improvement In campaigning as the development of new and relevant messages.	**Indicator(s):** 1. GoM agrees to and subsequently legislates an expanded role for the EITI as described under specific objective 2 below. 2. Trends and absolute numbers of local media houses (community radios etc.) with regular local language broadcasts on EI-related issues. 3. Trends in public opinion polling (fishermen on the beach and farmers in the fields should be able to explain the importance of EI good governance and how it might be achieved). ***Assumptions:*** 1. Widespread dissemination of the EITI results will stimulate public debate and lobbying pressure. 2. Government is sufficiently sensitive to public opinion that it will have an effect on national leaders' decision making processes. 3. A non-politicized yet well-known national figure will increase campaign visibility and effectiveness.[122]
	1.6 GoM prepares binding and enforceable	1. Support other G19 players who are advising and giving the GoM technical assistance on this.	**Indicator:** Government internal regulations that define HR

[122] Some examples might be Lurdes Mutola (athlete) who symbolizes the Mozambican national identity as well as striving for excellence; Feliciano dos Santos (lead singer of the Niassa-based music group "Massukos") who runs the local community development NGO "Estamos" and who has an international profile as a winner of the prestigious Goldman Award for his work in sanitation and water supply; there are others as well.

Specific Objectives	Results (outputs)	Key Activities	Indicators and *Assumptions*
	internal regulations for expenditure of EI tax and CSR revenues that prioritize broad-based HR investments.	2. Support lobbying efforts of other stakeholders. 3. Update of the gap analysis data contained in this report; direct technical assistance only if there are gaps.	as one of the key investment sectors for EI income and a priority sector for disbursement of any future sovereign wealth/natural resource/stabilization fund. Trend in absolute and percent of GoM technical training and higher education budgets (as evidenced in *Orçamento Geral do Estado*) over time. NB: This indicator will need to be revised and made more specific if a sovereign wealth type fund is created and comes into effect over the next five years.
2. Government and civil society work together to create an EI governance and monitoring framework that conforms to world best practice standards, incorporates institutional learning	2.1 A Mozambican EITI is created and legislated that conforms to worldwide best-practice standards.	1. Specific financing of the Common Fund to cover EITI costs with a clear mandate to go beyond the basic standards by publishing all contracts as done under the Liberia Extractive Industries Transparency Initiative (LEITI), inclusion of the aluminum and power companies (Mozal, HCB), large infra-structure projects, publication of all payments deriving from the extractive industries (corporate social responsibility, social funds, capacity building funds, signature bonus and other non-production related payments). 2. Financial support to CSO lobbying for drafting of legislation of a stronger EITI as above.[123] 3. Financing and technical support for Common Fund to draft such legislation.	**Indicator(s)** 1. GoM agrees to an expanded EITI as described at left. 2. GoM legislates an expanded EITI as described at left. 3. ENH (the state oil and gas company) is EITI compliant and limits its activities to its core business, that of representing the Mozambican people in oil/gas exploration.[124] 4. Trends in trust and dialogue seen by baseline and monitoring interviews with EITI members

[123] International best practice indicates that EITI, in order to meet its own goals of transparency and accountability, must go beyond simply matching the values of revenues paid by companies to the government and government receipts for those revenues to transparency along the entire chain of hydrocarbon/mining financial flows. Without such broader knowledge for the public and civil society, promoting governance through democratic means as well as developing a culture of accountability is not possible. Moreover, in terms of preventing corruption of such flows, areas such as licenses, signing bonuses (if applicable), and particularly, how such revenues are used is as important as matching payments from foreign companies to the government. The 2007 Nigeria Extractive Industries Transparency Act provides a good framework for Mozambique, though some elements of the bill would have to be adapted to Mozambican circumstances.

[124] ENH, as a corporation that works exclusively for the benefit of the Mozambican people must have the utmost transparency in all of its operations and revenue flows. It should publish an annual report (if not quarterly statements) that includes: all revenue flows, identified by type; all incurring and repayment of debt; all in-kind payments and receipts; all types of financial accounts held by ENH and their valuation; exchange rates used for transactions. ENH must also publish its contracts. ENH should also be professionally audited on an annual basis by an external company, with the findings of the audit made public without delay. Tax and royalty payments from other companies in the sector to the GoM should not pass through ENH and ENH should undertake no quasi-fiscal activities beyond its payments to the GoM. ENH should also not be a vehicle for investments in private sector businesses, particularly banks, as such activities are extraneous to ENH's mission and make it easier to engage in activities incompatible with ENH's role of helping the Mozambican people maximize their benefit from the country's gas, and potentially, oil, reserves.

Specific Objectives	Results (outputs)	Key Activities	Indicators and *Assumptions*
and dialogue mechanisms, and can adapt to future contextual changes.		4. Financial support to the Civil Society Platform on Natural Resource and Extractive Industries to support the EITI and advocate for an improved EITI.	(which can also be used as a feedback mechanism for civil society about the effectiveness of their campaigns). ***Assumptions:*** 1. Progress made in EITI so far has created a platform upon which further progress can be made. 3. Current mistrust between civil society organizations and government can be reduced by using the existing EITI framework as a starting point to build trust and collaboration.[125] 4. Promotion of the Civil Society Platform on Natural Resource and Extractive Industries will streamline feedback to and from GoM and private sector stakeholders and lays the groundwork for the development of tripartite forums (see specific objective 3, below).
	2.2 The *Direcção Nacional das Minas* (DNM) becomes a publically accountable agency with a similar [autonomous] structure to that of INP (*Instituto Nacional de Petróleo*).	1. In concert with other donor agencies, support to MIREM to increase the capacity of the *Direcção Nacional das Minas* (DNM) and to convert DNM into an agency with a similar [autonomous] structure to that of INP. 2. Finance the DNM to establish an electronic procurement database for licenses and contracts co which is public available with timely and comprehensive information.	**Indicator(s)** 1. DNM licensing and contract information freely available to the public. 2. DNM 'first-come first served' policy and other 'fair play' measures continue to be rigorously observed, as documented by tracking systems built into the database. ***Assumptions:*** 1. Donors have worked to build up the capacity of INP, yet the corresponding agency for mining, the *Direcção Nacional de Minas*, has neither the capacity nor the advantageous autonomous structure of INP.

[125] Mistrust may be caused by: government's perception that as they move the EITI "goalposts" do too; limits on GoM HR management capacities which the GoM is uncomfortable disclosing, and; a disconnect between feedback from multi and bilateral feedback to GoM and civil society feedback—most multi-and bi-laterals are cautiously optimistic while civil society is less so. Civil society pessimism is perhaps because while governance is improving in the EI sector (as evidenced by the new mining law and EITI compliance for example) it is declining in the broader political context.

Specific Objectives	Results (outputs)	Key Activities	Indicators and *Assumptions*
			2. Currently limitations on public access to information are technological and financial, not due to lack of will. If political will is involved, it will be amenable to lobbying efforts.
	2.3 National Budget reporting is timely and comprehensive, and is presented in both technical and non-technical formats for public awareness and use.	1. Technical and financial support to the National Budget Directorate to publish public, timely, and comprehensive Annual Reports which document all payments (including those channeled to specific entities like the National Petroleum Institute) from the extractive companies regardless of the scope of the EITI, including funds allocated to the provinces. 2. At the same time, provide technical and financial support to the National Budget Directorate to publish a non-technical document (Citizen Annual Report)[126] to be disseminated to provinces and grassroots organizations so they know the fiscal flows of the sector and what is earmarked for their specific areas.	**Indicator(s)** 1. Public Budget and Citizen reports produced as per year 2 of the project. 2. Reports contain information about expenditure of the recently mandated 2.75% of revenues earmarked for local communities where EI activities take place. ***Assumptions:*** 1. Reports such as these from the National Budget Directorate are an alternative way to increase transparency, regardless of EITI scope. 2. The National Budget Directorate can be convinced that such reports are a good thing.
	2.4 The GoM establishes the legal and policy framework for a future sovereign wealth fund, against the day when government revenues from hydrocarbons begin to exceed the government's ability to spend them in a sustainable and prudent way.[127]	1. Support the lobbying and technical support efforts of other donors (specifically the G19); material support to the GoM only if there are gaps in other donor coverage. 2. If political will is an issue, support to CSOs such as the Civil Society Platform on Natural Resource and Extractive Industries to make the business and political case for such a fund to the GoM.	**Indicator(s)** 1. Legal and policy framework established for the creation of a sovereign wealth fund as described at left and in footnote 7. ***Assumptions:*** 1. It will be possible to make the business and political case for such a fund, and to convince the GoM to make these decisions before revenue begins to flow and decisions become more difficult.

[126] Citizen budgeting and reporting is one of the key recommendations for budget transparency defended by the Open Budget Initiative. For more information see www.internationalbudget.org

[127] While removing revenues from direct government spending in the current time can be a prudent way to avoid overheating of the economy and other associated problems with spending in excess of the economy's present absorptive capacity, such funds when invested elsewhere can give relatively small returns and do not contribute to the economy of Mozambique. An alternative that is worth at

Specific Objectives	Results (outputs)	Key Activities	Indicators and *Assumptions*
3. EI governance, monitoring, communication and dialogue systems developed are strong enough that companies comply with Mozambique's legislative framework as well as with world best-practice voluntary and IFI standards.	3.1 Pilot tripartite dialogue mechanisms[128] are created at provincial level in at least three EI provinces to improve communication, compliance, CSR expenditure relevance and effectiveness, and to work to develop multiple-win strategies, policies, and interventions.	1. Informational exchange and dissemination of the tripartite concepts to relevant stakeholders using lessons learned from USAID's Ghana experience (including exchange visits Ghana-Mozambique). 2. Development of an action plan with relevant stakeholders that includes monitoring plans for EI activities, identification of multiple-wins, and CSR planning and implementation.[129] 3. Technical and financial support to the development of three provincial tripartite forums as per plans (Cabo Delgado, Nampula and Tete). 4. Support to ongoing coaching, monitoring and evaluation.	**Indicator(s)** 1. Three forums created; monitoring interviews for participants and affected stakeholders show increasing levels of satisfaction with progress over time. 2. Each of these forums designs and implements at least two multiple-win interventions per company involved (such as links to technical schools, public health measures in surrounding communities, mitigation of environmental impacts, etc.) that do not involve CSR funds. 3. All CSR funds (both voluntary as well as compliance) are disbursed as per tripartite agreements as of year 3 of the program. 4. Companies involved in tripartite forums follow their EIA's and environmental management plans as approved by MICOA. (NB: it is probably not possible to achieve more than this in the environmental sector in the first five years of tripartite work; future phases will include increases in rigor up to home country standards, see Assumption 1 below).

least part of the revenues is to use professionally managed investment funds (structured to be free from government interference in specific investment decisions) that focus on opportunities in Mozambique, or, the SADC region. Particularly in Mozambique, such funds would enjoy zero political risk, giving them a comparative advantage vs. foreign funds. The returns on such funds would be in excess of those from OECD bank accounts but would also contribute to economic development and higher absorptive capacity for the future for Mozambique and the region.

[128] The primary objective of a tripartite forum as conceived by the USAID Ghana's Local Governance and Decentralization Program is to facilitate multi-stakeholder conversations (public, private, civil society) on social issues related to the Oil & Gas sector. The forum structure is intended to promote dialog linkages between the local communities, local and regional government structures, the private sector and the national agenda for Oil & Gas. Though the Ghana project focused of CSR disbursement, the proposed tripartite forums for Mozambique will also address win-win investment opportunities and resettlement dialogues.

[129] One interesting example of multiple-win interventions is the assistance that Kenmare has extended to EDM (the national electricity company) in repairing electrical substations in Nampula province. The Kenmare CEO notes that stable electricity supply is Kenmare's "main constraint" to doing business in Mozambique. Kenmare's neighbors along the line most probably appreciate a more stable electrical supply as well.

Specific Objectives	Results (outputs)	Key Activities	Indicators and *Assumptions*
			Assumptions: 1. Best practice is defined as: strengthened EITI standards (described under result 2.1 above); World Bank/IFC resettlement standards, and; World Bank/IFC or home country environmental standards. 2. Mutual mistrust can be overcome by closer dialogue and better understanding of each other's positions, though there will always be tension caused by the fact that each of the tripartite stakeholders has different and even competing objectives (each wants more of the revenue "pie" for example).
	3.2 The GoM defines Corporate Social Responsibility and EI company responsibilities in a clear and unequivocal fashion.	1. Support the lobbying and technical support efforts of other donors (specifically the G19); material support to the GoM only if there are gaps in other donor coverage. 2. If political will is an issue, support to CSOs such as the Civil Society Platform on Natural Resource and Extractive Industries for lobbying and advocacy.	**Indicator(s):** 1. The publication of a CSR policy document that is generally accepted by relevant CSOs. ***Assumptions:*** 1. Recent advances in EI governance indicate increasing levels of GoM concern to develop broad- based EI benefits.
	3.3 CSOs fulfill their lobbying, advocacy, watchdog, and research functions in a timely and relevant way.	1. Creation of an independently managed civil society "EI Topical Action Fund" that will award grants on a competitive basis to CSOs, researchers, and other stakeholders who would like to research/lobby/organize around current issues and events of EI relevance (for example resettlement issues, unfair taxation, tax dodging, capital flight, monitoring of socioeconomic and environmental impacts, etc.).[130] 2. Technical support from leading institutions for compilation and documentation of grants awarded and results; analysis and identification of effective and appropriate activities and research. 3. Technical support for divulgation, publication, and/or activity rollout as appropriate.	**Indicator(s):** 1. CSO reports that evidence competence in understanding issues such as resettlement, fiscal issues, social, health and environmental impacts, etc. 2. Evidence that CSOs are playing an active role in the public sphere's engagement on these issues via media mentions and engagement with the government and business community. ***Assumptions:*** 1. Such a fund will allow civil society access to the resources it needs to keep abreast of developments in the dynamic economic and political environment of EI in Mozambique

[130] USAID may need to follow national policies on financing of CSO organizations to avoid conflicts with host-country governments.

Specific Objectives	Results (outputs)	Key Activities	Indicators and *Assumptions*
			today. 2. The fund will also create opportunities for CSOs to gain experience, develop professional rigor, and will allow opportunities for civil society champions to emerge.
	3.4 Communities negotiate legally binding land deals in return for equity and benefits packages in incoming business ventures in accordance with international norms and best-practice standards.	1. Fund and technically support the development of a land and business "Center of Excellence" in association with civil society organizations (both international such as CARE and national such as ITC—*Iniciativa das Terras Communitárias*) as well as international and national experts that can provide training and backstopping in land and business negotiations to communities and their provincial support agencies. 2. Support the Legal Defense Center for Community Rights to compile best practice land negotiation tactics and norms and develop manuals and teaching materials for Provincial Land Forums and civil society groups. 3. Fund training and backstopping for civil society networks in at least three EI provinces, based on existing structures. These networks will serve as an 'early earning network' for incoming investments and will coordinate the mobilization of needed support services (such as legal advice and business analysis, negotiation support, lobbying and advocacy, etc.) either from the province or directly from the Center.[131] 4. Support the Center to develop monitoring, documentation, analysis, and institutional learning functions so that successful tactics and best practice can be documented and rolled out, and tactics improved iteratively over time. 5. Support the Center to create informational campaigns about not only law but also the democratic and participatory mechanisms that are open to them (for example the District Administrations, appeals to the Director of the Lands Directorate, petitions to Parliament, *Presidência Aberta*, Governor's office, media, etc.).	**Indicator(s):** 1. Trends and absolute numbers of land processes that have equity stakes in incoming investments. 2 Trends and absolute numbers of land processes that contain legally binding contracts in addition to *Autos da Consulta Comunitária.* ***Assumptions:*** 1. The GoM will follow its own land law which states that after award of a mining concession, the mining company must still obtain a DUAT. 2. The GoM will follow its own law and regulations on how DUAT negotiations will be carried out. 3. Best practice standards and norms can be established (for example in real estate developments, the landowner normally receives an undilutable equity share of 10% regardless of the eventual value of the investment or subsequent calls for capital). 4. The moment of Community Consultations has heretofore represented the high point in community power; once the consultation is complete, communities have found that they have exchanged land rights for promises that are not legally enforceable and may or may not be fulfilled.
	3.5 When resettlement is	1. Support to the Legal Defense Center for Community Rights and its partner	**Indicator(s):**

[131] A recent study commissioned by CARE International (Norfolk and Bechtel 2013), noted that existing forums in Cabo Delgado and Nampula as well as all CSOs contacted acknowledged their own limitations in these areas. Informants universally stated that despite many years of divulging land law and land rights, negotiation outcomes with the private sector had not improved and that the listed skills were also needed.

Specific Objectives	Results (outputs)	Key Activities	Indicators and *Assumptions*
	necessary, communities negotiate resettlement benefits in accordance with international norms and best-practice standards.	networks to engage with tripartite forums on resettlement issues, in an attempt to discover multiple-win situations when resettlement is necessary (since resettlement is mandated to improve the living and livelihoods situation of resettled communities, win-win is in theory mandatory). 2. Support to the "Legal Defense Center for Community Rights " and its partner networks to engage in defense of community living situations and livelihoods when this is not possible. 3. Support to the GoM and other stakeholders to improve the Resettlement Decree according to Human Rights Watch and UNICEF commentaries.[132]	1. All resettlements in the three pilot provinces done in accordance with World Bank resettlement guidelines (this is a minimum standard). 2. Moving forward, trends in resettlement negotiation outcomes, using Moatize experiences as a baseline. 3. Degree of concordance between the Resettlement Decree (or, if this has not been revised, current resettlement practice) and Human Rights Watch and UNICEF commentaries after five years. ***Assumptions:*** 1. The GoM will follow its own land law which states that after award of a mining concession, the mining company must still obtain a DUAT. 2. The GoM will follow its own law and regulations on how DUAT negotiations will be carried out. 3. Bad resettlement outcomes are lose-lose situations for all concerned. 4. Although clear government guidelines are important, the unique character of soils, hydrology, and other environmental aspects of each area mean that no universally applicable blueprints are possible. Resettlements must be designed on a case by case basis using the best environmental and sociological information available. 4. Negotiation space must be left open to correct errors along the way.
4. The GoM creates plans and policies	4.1 Use of rail and coastal shipping	1. Support to an assessment of the economic, technical and legal viability of using medium-term marginal costing for rail and coast shipping by using	**Indicators:** 1. Studies produced as per plans.

[132] "Human Rights Watch Recommendations for Mozambique's Resettlement Decree", Sept 17, 2012, and "Regulations for Resettlement from a Child Rights Perspective", UNICEF, Mozambique, 2012, both unpublished.

Specific Objectives	**Results (outputs)**	**Key Activities**	**Indicators and *Assumptions***
that stimulate both upstream and downstream linkages so that EI sector growth leads to broad-based economic investment.	transport capacity stimulates agricultural and agro-industrial development.	existing underutilized capacity (especially for southbound coastal shipping). Such pricing would have to cover all the additional investment in rails, wagons, locomotives and their maintenance plus a fair profit. GoM is represented by a Ministry of Transport and Ministry of Agriculture-led working group. 2. Pre-feasibility evaluation of markets, infrastructural investments, and technical requirements to promote northern and central agricultural and agro-industrial development by availing cheap (but not subsidized) rail and coastal shipping, including preliminary estimates of the viability of various agro-industries taking into consideration the natural and human resources along these two corridors. 3. If the results of the prior two evaluations are positive, support preparation of an integrated master plan detailing the required investments and their timing. The detailed master plan will then be used by GoM Ministers/ Ministries for planning of infrastructure and investment promotional purposes.	2. On the basis of these, an informed decision about advancing with a Master Plan. ***Assumptions:*** 1. Private sector mechanisms will not be enough to stimulate such linkages without conscious attention on the part of GoM. 2. Existing contractual arrangements have sufficient negotiation space to allow for changes in pricing.
	4.2 Mozambique's negotiators are capable of addressing additional non-fiscal and environmental issues presently not envisaged in the current World Bank Mozambique Mineral Resources Management Capacity Building Project.	1. In cooperation with the World Bank, MIREM, and other relevant Ministries, expand the Mineral Resources Management Capacity Building Project to address: a. Technical issues concerning diverse technologies and their management and environmental impacts, with focus on the types of industries, investments and technologies likely to be proposed for Mozambique in the medium-term;[133] b. creation of appropriate business structures to ensure economies of scales and avoid monopolistic predatory pricing that would impede the development of local downstream industries (e.g., coke, fertilizer, rail transportation); c. care in the choice of investors to maximize the likelihood that they will have strong financial interests in developing local beneficiation and creating local downstream industries; d. investor obligations to respect local culinary practices as well as those of the foreign employees; e. explicit contractual obligations to mentor and assist local suppliers similar to how the Anglo *Zimele* program in South Africa (Anglo American and IFC 2008); f. limitation of perpetual off-take commitments that impede the development	**Indicators:** 1. Future contracts and concessions negotiated show increasing compliance with best-practice in these areas; trends over time that show that Mozambique has been able to obtain terms and conditions from EI and related investors that contribute to the sustainable economic development of Mozambique. ***Assumptions:*** 1. The World Bank and MIREM will be willing to expand the scope of their program and that other ministries will be able to participate. 2. Negotiators will be able to transform awareness of these issues into binding contractual arrangements.

[133] E.g., coalbed methane extraction (for electricity generation); coke plant; coal fed power plant; the Zambezi coal mine; Tete magnetite, ilmenite and phosphate mining; iron and steel production; Ncondezi coal mine; jewelry factory; fertilizer production; zircon beneficiation (Callaghan 2011: ix)

Specific Objectives	Results (outputs)	Key Activities	Indicators and *Assumptions*
		of industries to beneficiate the mining products; g. and others.	
	4.3 Local entrepreneurs in Tete province successfully access new markets provided by EI and related businesses.	1. Assist the GoM to develop a pilot entrepreneurial support program modeled after the best aspects of Mozlink I and II and the Anglo *Zimele* program, in cooperation with the mines and their large contractors. 2. Support learning exchanges with Anglo *Zimele* program as well as a pro-active institutional learning program so that problems are identified and overcome in a timely fashion. 3. Documentation of lessons learned and best-practice results for rollout in other provinces.	**Indicator(s):** 1. Absolute numbers, contract values, and trends over time for number of local SME's contracting goods and services with EI companies in Tete. ***Assumptions:*** 1. Involvement of mining companies and contractors means that product development can be targeted towards particular, identified markets, overcoming one recurring weakness of SME support programs across Africa.
	4.4 Inter-ministerial coordination on issues relating to national economic development is fast-tracked and ceases to be an impediment to economic growth in general and specifically to the coordinated development of upstream and downstream linkages between the EI sector and the rest of the economy.[134]	1. Support capacity building capacity building for the Ministry of Finance so that it is better able to develop an integrated national development strategy, see that its plans are carried out by the education and economics ministries, and, along with the *Ministério de Planificação e Desenvolvimento* (Ministry of Planning and Development), project, control and supervise, in board terms, annual revenues and expenditures in a rolling budgets for each ministry including 5-year projections. 2. Support the creation of a Development and Strategic Planning Unit, preferably in the Office of the President or the Prime Minister to develop an integrated national development strategy and oversee its implementation.	**Indicator(s):** 1. Broad based economic investment tracks EI sector investment with a lag of not more than five years. 2. Ministries' activities and budgets conform to the priorities endorsed in the national development strategy, especially concerning interdependent investments in mega-projects and infrastructure plus associated activities requiring simultaneity or strict sequencing and execution of both private and public commitments. ***Assumptions:*** 1. The GoM and its individual ministries will be willing to assume this configuration. 2. Ways will be found to overcome the persistent coordination problems that plague other coordination entities of the GoM (such as MICOA and CONDES). 3. Improved coordination will lead to improved and harmonized plans which will lead to more

[134] This is an (admittedly broad) item that may more appropriately be led by an IFI with support from USAID and other agencies in the G19, though USAID could push it forward in the context of the G19.

Specific Objectives	Results (outputs)	Key Activities	Indicators and *Assumptions*
			and better upstream and downstream linkages.
5. The Ministry of Health (MoH) plays a leading role in EI governance and decision-making processes by a) defining priority public health concerns among EI affected populations b) articulating a vision and strategy and c) coordinating a multi-sector response.	5.1 Likely impact of EI migratory flows established and Health implications of the collective operations of the EI identified, to lay a foundation for subsequent planning operations.	1. Support MoH (technical and financial support) to execute a National Health Impact Assessment and its corollary, a Population Migration Dynamics projection as a result of EI. 2. Support MoH to divulge results widely, especially in EI provinces.	**Indicator(s):** 1. Reports produced and available in Provincial Governors' offices, MoH offices, MIREM offices, and relevant CSO offices. ***Assumptions:*** 1. It will be possible to find or reconstruct data on population dynamics in EI districts and provinces.
	5.2 Health Action Plan (HAP) developed to minimize negative EI health impacts and support or enhance positive ones designed and implemented.	Support MoH to develop a Health Action Plan that takes into account the full range of Health Impacts, including the following (already predicted) effects: • increases in HIV/AIDS rates and tuberculosis rates; • problems with the provision of clean water and sanitation; • communicable disease increases; • and others. 2. Financial and technical support for its implementation in at least three EI provinces. 3. Support to the development of monitoring and institutional learning capacity within the three pilot provinces as well as at central level for rollout to more provinces during future phases.	**Indicator(s):** 1. Degree of correspondence between impacts identified in the national Health Impact Assessment and interventions prioritized in the Health Action Plan. 2. HAP includes recommendation for mandatory Health Impact Assessments for EI companies, just as for EIA's, and the GoM subsequently legislates this. ***Assumptions:*** 1. Without a project HIA, negative public health effects are not identified and remain external to the economics of EI development; they thus become a societal burden rather than a corporate responsibility. 2. The health context is a constantly changing one so institutional learning is particularly important.
	5.3 "HTM Best Practices Initiative" created based on Public-Private Partnerships in the EI provinces to increase provincial capacity for preventing the spread of	1. Support MoH and the tripartite forums to identify which parts of the HAP may contribute to multiple-win scenarios (better health for workers and families, less absenteeism, more productive workers, etc.). 2. Assist tripartite forums and MoH to work with EI companies to implement identified multiple-win portions of the HAP. 3. Support MoH and the tripartite forums to identify which parts of the HAP address real costs of doing business, using HIA's and other assessment techniques.	**Indicator(s):** 1. Number of companies implementing multiple-win health initiatives; numbers, cash values, trends, and percentages. 2. Number of companies implementing HIA's, absolute values, trends, and percentages. 3. Degree to which EI companies assume corporate responsibility for mitigation of effects

Specific Objectives	**Results (outputs)**	**Key Activities**	**Indicators and *Assumptions***
	HIV&AIDS, TB, and Malaria (HTM) through PPP's.	3. Support MoH, the tripartite forums, and CSOs to motivate/lobby/insist/encourage EI companies to mitigate these. 5. Support stakeholders to monitor and report publicly on compliance (so companies receive the criticism or praise that is their due). 6. Assist both MoH and tripartite forum members to institutionalize the "HTM Best Practice Initiative" within their institutional structures.	determined in their HIA's (note that these should not be defined as CSR but rather a real cost of doing business; that is, mitigation of adverse effects). ***Assumptions:*** 1. The logic of HIA's (which is identical to that of EIA's) will be understood and acceptable to the majority of stakeholders. 2. EI companies will understand that identified multiple-win interventions are "good business" as well as "doing good".
	5.4 Health issues integrated into governance mechanism for the EI and used as an indicator for EI social development effects.	1. Support MoH and EITI partners to negotiate the integration of health issues and measures into governance mechanisms used for EI activities. 2. Technical assistance to develop key health indicators to measure and track over time the extent to which extractive industries' activities contribute to human development.	**Indicator(s):** 1. The EITI and it participating partners formally adopt the tracking of defined health indicators. 2. An indicator set is developed that is has broad acceptance among stakeholders. ***Assumptions:*** 1. Health status can be used as a proxy for the social value generated or lost as a result of the conversion of natural resource wealth.
	5.5 MoH successfully fortifies its ongoing multi-sectoral integrated response program for the prevention and mitigation of Gender-Based Violence (GBV) to specifically address potential negative impacts of the EI.	Support execution of a national gender analysis of the EI impacts including: • Technical support for study design and financing of its execution; • Facilitating national and three provincial workshops to share findings. 2. Support development of an EI gender action plan (EI-GAP) involving all relevant sectors. 3. Using the plan, scale up the MISAU led multi-sectoral integrated response program for the prevention, care and treatment of GBV and GBV victims in three EI provinces with a stronger focus to directly affected districts.	**Indicator(s):** 1. EI Gender Action Plan includes monitoring and reporting tools. 2. Trends in GBV over time in three EI provinces (or other select target districts). 3. HAP includes recommendations for mitigation of gender-based violence. ***Assumptions:*** 1. The national gender analysis will be incorporated as a specific component of the more general HAP

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