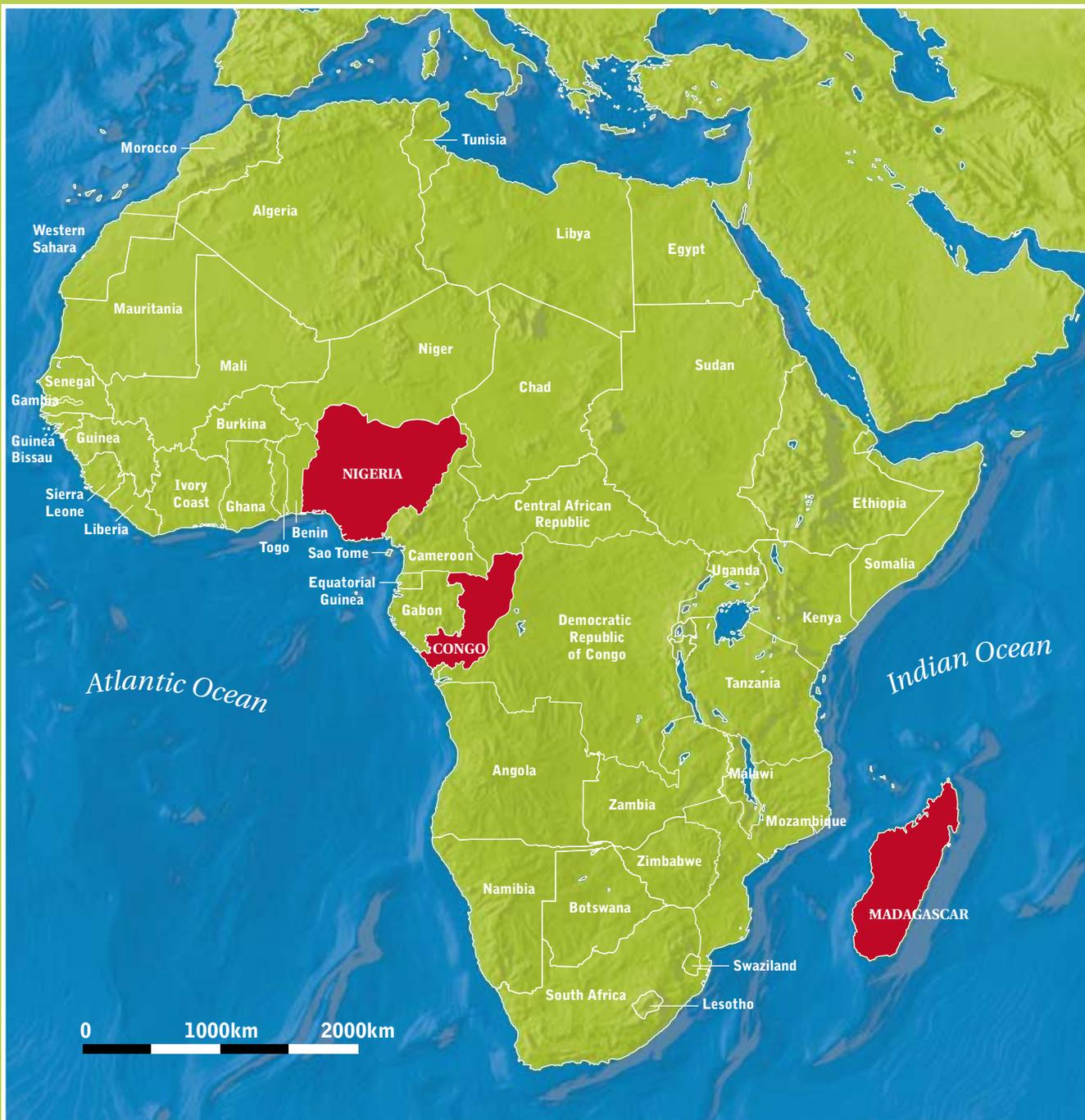


Locking up the Future

Unconventional Oil in Africa





CONGO

Population: 4.1 million (UNDP 2011)^{vii}

Africa's 7th largest oil producer (BP, 2011)ⁱ

Revenues (2009): US\$5.6 billion; of which oil is \$4.6 billion (IMF, 2010)ⁱⁱⁱ

Oil is 90% of export earnings and around 85% of budgetary revenues. Oil is 67% of GDP.

Human Development Index Ranking 2011: 137 (out of 187 countries) - low medium ^{vii}

Number of people living below the poverty line (\$1.25 ppp per day): 54.1%



MADAGASCAR

Population: 21.3 Million (UNDP, 2011)^{vii}

Revenues: \$1.3 billion in 2008 (World Bank, 2011)^{viii}

Over 67% of the Malagasy population live below the poverty line (UNDP, 2011)^{vii}

HDI ranking: 151 - low (UNDP, 2011)^{vii}

Third most vulnerable country to climatic change (Maplecroft, 2011)ⁱⁱ



NIGERIA

Population: 162.4 Million (UNDP, 2011)^{vii}

Africa's largest oil producer (BP, 2011)ⁱ

Revenues (2009): \$33.5 billion; of which oil & gas revenues approx. \$21.4 billion (IMF, 2011)^{vi}

Oil is 95% of export earnings & around 65% of budgetary revenues. Oil is 31% GDP (IMF, 2011)^{vi}

Number of people living below the poverty line: 55% (WB 2011)^{viii}

Fewer than 50% of people have access to electricity (IEA World Energy Outlook 2011)^{iv}

HDI ranking: 156 - low. (UNDP, 2011)^{vii}

Breaking Energy Frontiers: Unconventional oil in Africa



Nigeria: Flaring and venting of natural gas in oil wells is a significant source of environmental degradation and greenhouse gas emissions.
© Kadir van Lohuizen

In today's carbon and resource-constrained world, the key challenge facing industrialized and emerging economies, especially those dependent on imports of polluting fossil fuels, is how to manage the structural transition to sources of energy that both ensure security of supply and respect ecological boundaries.

For many developing countries trying to reach the Millennium Development Goals (MDGs), especially those on eradicating poverty and environmental sustainability, a critical challenge is ensuring the vast majority of their citizens living in energy poverty can access secure and sustainable modern energy for basic and productive use.¹ Indeed, "while the [MDGs] do not include specific targets in relation to access to electricity or to clean cooking facilities, the United Nations has declared 2012 to be the "International Year of Sustainable Energy for All".² Energy access, energy efficiency and renewable energy are expected to be prominent issues at the United Nations Conference on Sustainable Development (Rio+20) in June 2012.³

In the short term, the question is how to balance the need to meet growing global energy demands, particularly in the South, while tackling the environmental and social externalities of the world's current major source of energy, fossil fuels. Sub-Saharan Africa, one the world's poorest regions, is also one of the last remaining "frontiers" for conventional oil exploration and is also now attracting investment in dirtier forms of "unconventional" oil. The risks to the already fragile livelihoods and environments of

potential host communities are very real. This short briefing gives an overview of three investments in unconventional oil currently in prospect in the context of debates about the need to mitigate global environmental threats and ensure sustainable development.

What price our future energy?

Decarbonizing energy systems globally is the only viable long-term option if we want to stop dangerous climate change (60% of global carbon emissions come from energy-related use⁴). Adapting to the threats from a changing climate is a particularly salient challenge for African decision makers. Africa is likely to be one of the regions hardest hit by more unpredictable, extreme and intense weather events, exacerbating existing resource, social and political stresses.⁵

At the same time, global demand for fossil fuel energy sources is rising,⁶ increasingly driven by emerging economies,⁷ while production of conventional oil resources is declining. As Shell's CEO Jeroen van der Veer summed it up in 2008: "Never before has humanity faced such a challenging outlook for energy and the planet. This can be summed up in five words: 'more energy, less carbon dioxide'."⁸

In addition, international oil companies (IOCs) now enjoy much more restricted access to the world's remaining oil resources - and on less favourable terms - than in the past, largely due to the rise of resource nationalism. The

vast majority of the world's remaining "easy to access" oil is under the control of OPEC.⁹

Faced with the conundrum outlined by Shell, a business-as-usual trajectory will see intensifying competition among players in the global oil industry to replace reserves and, fuelled by rising oil prices, a race to access the remaining "frontier" conventional resources in regions such as East Africa and the offshore Arctic.¹⁰ Both IOCs and Asian oil companies are also already heavily investing in new "unconventional" forms of oil in North America and elsewhere.¹¹ These resources are generally more technically difficult and expensive to extract and process into petroleum products. They also pose an even higher risk to the climate, as well as to the local environment and communities.¹²

Oil derived from tar or oil sands is the most commercially advanced form of unconventional oil production. Tar or oil sands are a viscous and dense form of petroleum called bitumen, usually found mixed with sand, clay and water. It requires energy and water-intensive processing to turn into conventional petroleum products.¹³ Canada's tar sands are the third largest oil resources in the world.¹⁴ The province of Alberta has already seen billions of dollars of investment, with an estimated further hundred billion to follow in the next decade.¹⁵

Oil from tar sands is extremely climate-hostile. Producing one barrel emits between 17-23% more greenhouse gases (GHGs), depending on the techniques used for production, than a barrel of conventional oil.¹⁶ The tar sands industry has also been accused of causing local environmental destruction in Alberta (such as cutting down vast swathes of Boreal Forest and polluting and depleting the Athabasca River) and causing negative social impacts, including on the traditional livelihoods and health of First Nations communities living near the tar sands sites.¹⁷

Proponents of Canadian tar sands argue that such concerns are exaggerated and that its production is an integral part of the world's current and future energy security, particularly for the USA.¹⁸ The USA is the number one destination for Canadian tar sands oil, consuming 75% of Canadian exports.¹⁹

Critics, including NASA scientist James Hansen, respond that development of the huge tar sands resources in Canada, with its attendant emissions, will mean "game over" for climate protection. The Canadian government estimates annual GHG emissions from the tar sands will double from 2009 to 2020, on a business as usual scenario.²⁰ Most recently, huge controversy has been generated in Canada and the USA over the potential environmental impacts of a planned pipeline to link Canada's tar sands fields to U.S. refineries in the Gulf of Mexico (the 2,673 km long Keystone XL pipeline).²¹ In Europe, there are concerns over lobbying by the Canadian government to water down proposals by the European Commission that would limit oil derived from tar sands from entering the EU.²²

The *Fuel Quality Directive* (FQD) obliges fuel suppliers in



Syncrude Aurora Oil Sands Mine, north of Fort McMurray, Canada.
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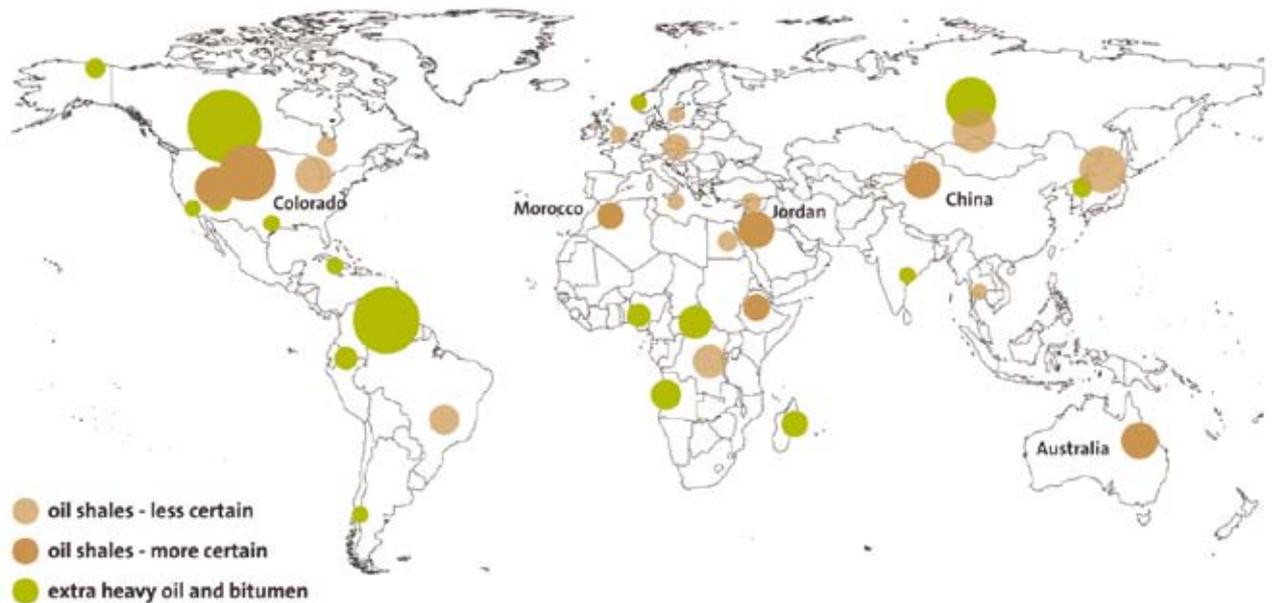
the EU to reduce the GHG intensity of fuel supplied by 6% by 2020. Canada's unhappiness is linked to the EU's intention to assign different GHG intensity values for different sources of fuels, to ensure the Directive is implemented effectively.²³ According to scientific analysis, fuels produced from tar sands have particularly high GHG emissions: the industry average is 23% higher than the average GHG intensity of fuel from conventional oil currently used in the EU.²⁴

The EU has therefore decided that fuel from tar sands should have a higher GHG value under the FQD to ensure importers take this into account when selecting feedstocks,²⁵ sending a clear signal that transport fuels must be decarbonised. In October 2011, the EU Commission endorsed the measure and it now awaits agreement of EU Members States and approval by the European Parliament.²⁶

Even setting aside the environmental issues, investing in unconventional resources such as tar sands will not address long-term energy security concerns. One reason is that Canadian tar sands do not have enough spare capacity to respond quickly to an oil crunch should OPEC producers cut supply. Overall, almost without exception, tar sands and other unconventional resources are more expensive to develop and produce than conventional oil and thus depend for their profitability on a high oil price, itself driven by higher demand. In short, investment in tar sands and other forms of high cost oil is a *symptom* of high prices and excessive demand rather than a way of tackling either.²⁷

The only viable solution that can ensure both energy security and climate protection for the long-term is a reduction in global demand for oil and other fossil fuels. This can be done by increasing fuel efficiency in the short-term and by introduction of clean energy and transportation systems in the medium term. The "alternative" - continuing down our current business as usual energy path - will lead to "rapidly increasing dependence on fossil fuels, with alarming consequences for climate change and energy security".²⁸

Business as usual will also inevitably mean expansion of unconventional oil, including tar sands, to wherever resources are to be found, including in developing countries with weak or malfunctioning governance systems and in environmentally sensitive locations. In fact, tar sands



Global unconventional oil resources. Friends of the Earth, May 2010

expansion outside Canada is already underway, with exploration planned in three African countries: Madagascar, Republic of Congo (Brazzaville) and Nigeria.

The three projects, although in their infancy, are already raising concerns locally and internationally about their potential environmental and social costs.²⁹

The tarnished history of oil in Africa

Communities' concerns when faced with tar sands projects are in part informed by the continent's experience of conventional oil production and other extractive activities to date. In sub-Saharan Africa, nearly half of the population lives in oil and mineral rich countries,³⁰ accounting for about 70% of Africa's GDP.³¹ In the case of mature producers like Nigeria, Angola – and Republic of Congo – oil production has gone on for decades. More recently, the search for new sources of oil has led to another investment boom centred on Ghana in West Africa and Uganda in East Africa. In future, this could extend to other countries in the region such as Kenya, Ethiopia, Tanzania and, in Southern Africa, Namibia.³²

The livelihoods of the vast majority of citizens in the region have not been improved by oil and other extractive industries. African oil producers are overwhelmingly identified with the “resource curse” – skewed economic development, high levels of poverty, low human development and a tendency to authoritarian rule, corruption and conflict.³³ In fact, the label “Middle Income but Fragile or Failing States (MIFFs)” was recently applied to major African oil producers Angola and Nigeria.³⁴

Faced with this evidence, a 2004 World Bank report concluded that extractive investments can only contribute to achieving the MDGs if a number of good governance conditions are met in host countries.³⁵ Yet despite growing mobilization by African and international civil society calling for more transparent and accountable management of oil wealth by both governments and companies,³⁶ the social and environmental externalities of oil production in the region remain largely unaddressed.

Without root and branch improvements in governance, further investment in Africa's oil sector – conventional or unconventional – appears unlikely to enhance countries' progress towards the MDGs. Oil's negative human development and environmental impacts are now compounded by the climate externalities caused by oil use globally, which require an urgent and fundamental shift to low or zero carbon energy systems.

From both a developmental and climate lens, expanding investment in tar sands or other high carbon forms of fuel in Africa is a move in completely the wrong direction. Indeed, arguably, the imperative to decarbonize energy systems globally presents an opportunity to address some of the fundamental social and economic inequalities currently associated with fossil fuel export-dependent economies in Africa. In particular, new clean energy technologies could help the vast majority of citizens in such countries who are currently living in energy poverty access a secure, modern energy supply.³⁷

Investments in tar sands: Republic of Congo, Madagascar and Nigeria



Tar sands sampling, Dionga, Congo. © Elena Gerebizza

Republic of Congo

In the Republic of Congo³⁸, communities living near the main oil centre of Pointe-Noire (Kouilou, South West Congo) have long been negatively impacted by conventional oil operations, according to civil society organizations Rencontre Pour le Paix et les Droits de L'Homme (RPDH) and the Catholic Justice and Peace Commission, Pointe Noire (JPC-PN).³⁹

Apart from being Africa's seventh largest oil producer,⁴⁰ Congo has important forest resources (about two thirds of the country is forested⁴¹) providing livelihoods for local communities and assisting climate protection. However, Congo is a classic "resource curse" country in terms of its poor record on human development and its consistent rating as highly corrupt, with weak and/or unenforced environmental and human rights regulation.⁴² Overall, the context is one of official impunity.⁴³

Congo, rated third bottom of all countries on the World Bank's *Doing Business* indicators for 2012, now has the dubious privilege of being the first country in Africa targeted for tar sands exploration.⁴⁴

The government first signed agreements with Italian oil major ENI for a new \$3 billion investment in May 2008. ENI announced that it would begin exploration of a bitumen resource estimated (by ENI) at 500 million barrels risked and 2.5 billion unrisked.⁴⁵ It is

still unclear whether this is an accurate assessment of recoverable resources.

ENI's plans also included growing oil palm for food and bio-diesel and building a gas-fuelled electricity plant at its Mboundi conventional oil field.⁴⁶ ENI states that the new power station will reduce gas flaring and "benefit from credits from the Clean Development Mechanism contained in the Kyoto Protocol".⁴⁷

The huge 1,790 km square tar sands concession covers two areas, Tchikatanga and Tchikatanga-Makola, and includes savannah, tropical rainforest and wetlands that are home to endangered bird species. It borders a national park described by the government as the "most ecologically diverse habitat in Congo"⁴⁸ and encroaches into the UNESCO-recognized Dimonika biosphere.

RPDH and JPC-PN, supported by international partners, have been monitoring the proposed investment since 2009. They are concerned about lack of information, and lack of understanding about the project on the part of local communities but also, given the limited transparency in the country, that the government may not have an accurate understanding of its potential environmental and social impacts.

ENI had stated publicly that the tar sands exploration would not take place on rainforest or other areas of high biodiversity or involve resettlement of people. Research

revealed ENI's own (unpublished) estimates that the tar sands zone comprised 50 to 70% rainforest and other highly environmentally sensitive areas. Field research also established the presence of communities within or near the main exploration sites, with communities complaining about the impacts on their land of seismic and sampling activities.⁴⁹

After publication of a report raising these and other concerns, RPDH and its European partners met the company's senior management in Milan to discuss ENI's social and environmental responsibilities in Congo, particularly in relation to the tar sands investment. ENI promised to respond to the concerns raised, including through more open engagement with local communities and asking the government to allow publication of all the social and environmental impact assessments (SEIAs) on the tar sands project.

From December 2009 onwards, RPDH and JPC-PN continued advocacy work nationally and internationally and also outreach with local communities. In 2010, they raised their concerns with representatives of the European Commission and European Parliament in Brussels. They called for the EU to ask the Congolese Government to respect its commitments under the EU-Africa partnership agreements.

In Congo, some progress was made, such as the signing of a partnership agreement between ENI and the Catholic Church to promote further dialogue and implementation of development projects in areas affected by ENI's operations. ENI's website also now states that in 2010 it carried out exploration on the Tchikatanga and Tchikatanga-Makola sites "with the specific aim of identifying those areas where [tar sands] development would respect Eni's stringent parameters concerning environmental protection and sustainability."⁵⁰

It is true that the company is now concentrating its activities on a site at Dionga, deemed "less environmentally sensitive" by ENI than another remoter site (at Lake Kitina, located in wetlands and near primary rainforest). It is unclear whether this decision, even if driven primarily by environmental concerns, will hold, given that ENI still maintains that both permit areas have "huge potential".⁵¹

A "pilot quarry project" at Dionga took place from May to October 2010. The bitumen extracted, according to ENI, was used for road paving at the request of the government. A public meeting was held in April 2010 to discuss the project with stakeholders, at which ENI presented its environmental impact assessment.

This was an improvement on ENI's previous lack of outreach with local communities. However, ENI claimed its quarrying activities had paid "maximum attention [...] to environmental and biodiversity protection" with the pilot site being "completely restored through geological remodelling and replanting activities".⁵²

Local organizations, on the other hand, report communities complaining about the impacts of the quarrying on land and water sources, as well as concerns over the health impacts of bitumen storage. There is also ongoing concern over inadequate compensation for damage done by exploration and quarrying activities to communities' property and livelihoods.

Full information and meaningful consultation by ENI about its future tar sands development plans, including publication of the results of bitumen sampling carried out at Dionga in 2010, is still lacking. ENI maintains that the "[o]perations aimed at producing crude oil are [...] still in the exploration phase" and that tar sands "will only be given the go-ahead after rigorous feasibility studies have been carried out [...] and areas where a rich biodiversity exists and primary forest areas will be excluded".⁵³

However, given that previous feasibility studies and the full SEIAs for the tar sands project have not yet been made publicly available, there is little evidence to judge the accuracy of these claims.

In terms of extraction techniques, ENI also states that "the operational techniques being considered exclude open-cast mining and the creation of tailing ponds, both of which are considered to have a high-risk impact and both of which are used in oil sand operations in Canada". However, this does not rule out the use of *in situ* techniques used in Canada. On average, *in situ* projects "contribute more to climate change and acid deposition per barrel of bitumen produced than oil sands mining" and they may have larger environmental impacts overall than mining.⁵⁴

The next phase of exploration may be underway. On 6 October 2011, ENI released a terse statement to the effect that its CEO Paolo Scaroni had met Congo's President Sassou Nguesso "to discuss the status of Eni's activities and projects in the Country".⁵⁵ A local media source quoted Scaroni saying "the big project for the future is the tar sands for which we already have a small pilot that will start next year".⁵⁶ Perhaps in recognition of the controversy over ENI's plans to date, he added: "Everything will be done taking into account the environment which is the first priority of our activity in the country".



Congolese villagers living near the M'Boundi oil field. © Chris Walker



Deciduous forest of Ankarana, Madagascar. © Rhett A. Butler / wildmadagascar.org

Madagascar

Madagascar is increasingly a target for extractives exploration and extraction.⁵⁷ Despite its unique eco-systems – the island is a biodiversity hotspot – extractive industries are regarded as one of the strategic pillars of the country’s future development. Former leader Marc Ravalomanana focused on encouraging international investment, which has continued albeit at a slower pace due to the country’s ongoing political turmoil.⁵⁸

Interest in tar sands is focused on the Bemolanga field in the Melaky region, near the West coast of the island. Extra heavy oil resources are also being explored at the neighbouring Tsimiroro field. Both fields are located on the country’s oldest known hydrocarbon deposit. Melaky is also home to the Tsingy de Bemaraha Nature Reserve, listed as a UNESCO World Heritage Site in 1990 due to its unique geography, preserved mangrove forests and wild bird and lemur populations. Around half of the reserve is designated as a “strict” or “integral” reserve, meaning no development or tourism is allowed. Despite this, UNEP claim that “there is no management plan or zoning [and] [n]o effort is made to patrol the Reserve or prevent legal infractions”.⁵⁹

The Tsimiroro (extra heavy oil) field is 100% owned by independent company Madagascar Oil, while the Bemolanga (tar sands) field is 60% owned by French major Total and 40% by Madagascar Oil, a Houston-based independent company which is currently the largest onshore oil operator in the country.

An independent estimate of the Tsimiroro field in 2009 showed it had 3.5 billion barrels in place, with 900 million barrels recoverable, slightly less than Madagascar’s Oil’s own estimate. The depth of the field, between 40 and 300 metres below the surface, means oil will need to be extracted through *in situ* steam-based production techniques (as in the Canadian tar sands), requiring significant water and energy resources.

The Bemolanga field is estimated to contain over 16.5 billion barrels of oil-in-place, with almost 10 billion barrels recoverable. Madagascar Oil, estimates that at full production the site could produce as much as 180,000 barrels per day over 30 years. In 2008-10, Total carried out



Lemur, Madagascar. © Rhett A. Butler / wildmadagascar.org



Village boys. Field trip to Madagascar, 2011. © Chris Walker

a programme of core drilling at Bemolanga. The studies revealed a mineable area of bitumen of approximately half of the total found on the Canadian tar sands. The Bemolanga bitumen is located on average just 15 metres below the surface, making it ideally suited for opencast mining.⁶⁰

However, financial concerns relating to valuation of the costs of extraction, production and export in relation to the price of oil, recently brought into question the viability of the project.⁶¹ In June 2011, Total and Madagascar Oil received approval from the National Office for Mining and Strategic Industries (OMNIS) for a modification of the Bemolanga permit to focus on more conventional forms of extraction (heavy oil).⁶² An extension of one year was granted in June 2011, with an option for a further two-year extension to drill.

Most recently, it was reported that Total expects to start producing heavy oil at Bemolanga by 2019, while Madagascar Oil is aiming at production by 2015 on the Tsimiroro field.⁶³ Overall, under the terms of the production sharing contracts, Madagascar is set to receive just 4% of the oil revenue derived from the projects after a proposed thirty-year commercial exploitation.

Madagascar is considered the third most exposed African country to climatic catastrophes, including cyclones and droughts.⁶⁴ Over 67% of the Malagasy population live below the poverty line and, overall, the country's human development is ranked low.⁶⁵ The population of the Melaky region fit this profile, as they are disadvantaged by poverty,

low literacy rates (40%), poor access to education and lack of access to information and modern communications.⁶⁶

As such, the population is extremely vulnerable and has little capacity or infrastructure to understand, negotiate or protect their rights. In particular, they are reliant on traditional forms of land tenure that offer little protection from compulsory government purchase systems and statutory compensation processes that are often poorly administered.

Given the vulnerability of the local communities in the target area and the context of a lack of transparency on the part of both corporate and state actors, there is a growing need in particular to establish clear baseline data in the areas affected by tar sands exploration and future production. This will assist in ongoing monitoring of developments.

Malagasy NGOs began monitoring the tar sands development in October 2010,⁶⁷ carrying out outreach with communities in the Bemolanga area in order to assess their knowledge of the project and help them understand the potential impacts of tar sand development. Initial field research demonstrated that local people had very little understanding of the project and its implications for their communities, environment and the local economy.

In 2011, NGO representatives met with Total and Madagascar Oil, other civil society actors and with relevant Ministries and authorities to try to gain further information



Oil production in the Niger Delta. © Elaine Gilligan / Friends of the Earth

about the tar sands development, including evidence of permits and social and environmental impact assessments. The authorities and oil companies were reluctant to provide evidence and relevant documentation on plans for the current and future development of the project.

In June 2011, a representative of Malagasy NGOs travelled to meet local advocacy groups in France and the UK and to urge shareholders in Royal Bank of Scotland (RBS) to withdraw financing from tar sands projects in Canada and beyond. At the EU level, the Malagasy representative and EU groups met MEPs and called on them to support stringent implementing standards for the *Fuel Quality Directive* (FQD) to ensure that imports of oil produced from tar sands are prevented from reaching European markets. In October, a fact-finding mission to Canada to see tar sands development first-hand also took place.

Nigeria

In Nigeria, the largest country in Africa, the international oil industry occupies a strategic position in the economy. The country is the 14th largest global producer,⁶⁸ with around 3.4% of global reserves.⁶⁹ Oil revenues contribute over 95% of Nigeria's foreign exchange earnings and about 40% of budgetary revenues.⁷⁰ Despite this, fewer than 50% of Nigerians currently have access to electricity⁷¹ and over 55% live below the poverty line, according to the World Bank.⁷² Overall, the country ranks in the "low" category of human development.⁷³

The impact of oil production, currently centred in the Niger Delta, on host communities, their environment and livelihoods, has been devastating. Oil production has resulted in the destruction of the environment, rural livelihoods and pollution of water sources with minimal social returns.⁷⁴ Oil spills and gas flaring are commonplace and continue unabated. It has taken decades of relentless struggle by local, national and international civil society to improve industry practises and accountability. Most notably, Shell has finally accepted responsibility for widespread devastation in Ogoniland following an environmental assessment by UNEP.⁷⁵ The resulting clean-up operation is projected to last more than 30 years.

Bitumen was first discovered in Nigeria in 1900 and there have been several exploration efforts over the past fifty years. The "bitumen belt" is located in the southwest of the country, stretching along 120km of coastline traversing Lagos, Ondo, Ogun and Edo states, and is divided into 3 blocks. An estimated 27 billion barrels of oil equivalent are located in this 17 km square area, with the most important deposits found in Ondo state (an estimated 43 billion barrels).

Between 2001 and 2008, 40 core holes were drilled and in 2002, Conoco Energy Nigeria carried out a pre-feasibility and scoping study of the bitumen belt. In 2007, the country's new Mining Act created favourable tax and fiscal regimes designed to attract foreign direct investment.

In this legislative environment, the government announced a bidding round on two of three blocks of bitumen deposits. The bidding round was due to be completed by September 2009 and sixteen companies from the US, Canada, Nigeria, South Africa and China reportedly expressed interest. However, the outcome of the bidding round has not been publicly announced (this may be due to the political crisis that occurred at the end of 2009). Overall, local people remain uninformed about the status of any planned tar sands development.

The Ikale region in Ondo state is likely to be one of the most affected areas if tar sands production goes ahead, with displacement of local populations and impacts on the area's fragile eco-systems likely. Environmental Rights Action (ERA)/FOE Nigeria,⁷⁶ with significant campaigning experience on extractive industries and oil, is now working to address information gaps, conduct advocacy around the potential impacts of tar sands investment and to increase participation by potentially affected communities in policy dialogue.⁷⁷

One of the key concerns of local communities is whether the style and approach used by state actors in conventional oil exploration in the Niger Delta will be deployed. Given the history of violence stemming from the social and political conflict generated by oil production in the Delta, it is vital that any tar sands development starts from a position of transparent communication and engagement with local people. In particular, ERA is seeking a memorandum of understanding (MoU) with government and corporate actors to this end, before any exploration of the bitumen belt begins.

Time to rethink

Tar sands and other carbon-intensive oil investments in Africa could lead to potentially devastating developmental impacts for host communities and countries while contributing to further climate instability.

In Canada, tar sands production has resulted in damage to the traditional livelihoods and health of local indigenous groups and eco-systems. If this occurs in a country with a well-developed legislative framework and established democratic institutions, what risks do such investments pose to poor communities in Madagascar, Congo and Nigeria, who enjoy none of these protections? What accountability mechanisms will be put in place to mitigate these risks and ensure the investments, whose driver is the production of energy for export to consumer countries in the OECD or Asia, contribute to the human development and well being of their host communities and the wider population? How will they ensure respect for national and international environmental and human rights standards?

There is little evidence to date of willingness on the part of the oil companies or host governments involved to engage transparently and meaningfully with stakeholders over such concerns. Thus, as a first step, communities and activists concerned about these tar sands investments deserve support from civil society internationally in their efforts to access up-to-date information on their full range of potential social and environmental impacts and to ensure genuine consultation before any further development occurs.

There is also a need for a more fundamental and inclusive debate in Congo, Madagascar and Nigeria – and internationally – on what kind of energy investments will genuinely benefit host communities and the majority of citizens in developing countries, most of whom currently live in energy poverty. This must take into account evidence that access by poor communities to clean sources of energy, which protect their local ecosystems and the natural resources on which they depend, is an integral part of building genuinely resilient societies and economies.⁷⁸



Oil spills in the Niger Delta. Oil spills heavily pollute and degrade the environment. The area pictured was previously used for agriculture.
© Elaine Gilligan / Friends of the Earth

Endnotes

- 1 According to the International Energy Agency (IEA), "globally over 1.3 billion people are without access to electricity and 2.7 billion people are without clean cooking facilities. More than 95% of these people are either in sub-Saharan Africa or developing Asia and 84% are in rural areas". IEA, 2011. *World Energy Outlook 2011*, "Energy for All: Financing access for the poor", Special early excerpt of the World Energy Outlook 2011, October. According to the IEA and other expert analysts, decentralized clean energy is the most viable and cost-effective means of achieving energy access for the majority of the world's rural population (see below). See also *Access to Energy for the Poor: The Clean Energy Option*, Action Aid International, Oil Change International, and Vasudha Foundation India, May 2011.
- 2 IEA, 2011, op. cit. See also: <http://www.sustainableenergyforall.org/>. The goal is to meet three objectives by 2030: Ensuring universal access to modern energy services; Doubling the rate of improvement in energy efficiency; Doubling the share of renewable energy in the global energy mix.
- 3 See: <http://www.sustainableenergyforall.org/>.
- 4 IEA, 2008. Energy-related emissions are set to double by 2030 on a business-as-usual scenario. *World Energy Outlook 2008*, pp. 3-5.
- 5 See Intergovernmental Panel on Climate Change, 2007.
- 6 The IEA estimated in 2008 that of the 70 million barrels per day (Mbpd) of conventional oil in production in 2007, 43 Mbpd would not be available in 2030. To meet rising demand in an unchanged policy environment, this means bringing onstream an extra 64 Mbpd of new capacity - "the equivalent of almost six times the current capacity of Saudi Arabia". IEA, 2008. *World Energy Outlook*, p. 18.
- 7 In terms of total global energy-related emissions, China will account for three quarters of the projected 11 gigatonnes (Gt) increase to 2030. IEA, 2009. According to the *World Energy Outlook 2009*, "[n]on-OECD countries account for all of the projected growth in energy-related emissions to 2030", with China accounting for 6 Gt, India 2 Gt and the Middle East 1 Gt.. IEA, 2009, p. 44.
- 8 Shell BV, 2008. *Shell Energy Scenarios to 2050*, "Foreword".
- 9 In the 1960s, IOCs had access to around 85% of global oil reserves: today their share has shrunk to only 6%. Arthur D. Little Management Consultants, 2010. "New business models for the international oil company" in *Prism*, 01/2010. See: http://www.adl.com/prism.html?&no_cache=1. For an overview of what is behind this shrinking share of global reserves and other drivers of investment in "marginal" oil resources, see Heinrich Boell Foundation, 2011. *Marginal Oil - What is driving oil companies dirtier and deeper?*, 14 June.
- 10 2011. "Oil groups chase elusive production growth", *Financial Times*, 11 October. See: <http://www.ft.com/cms/s/0/e5bb3dd0-eb82-11e0-a576-00144feab49a.html?ftcamp=rss&ftcamp=crm/email/20111012/nbe/GlobalBusiness/product#axzz1aSDFJyOC>.
- 11 International Energy Agency (IEA), 2010. *World Energy Outlook (WEO)*, "What is Unconventional Oil?", pp. 145-46. The IEA's definition of unconventional oil includes extra heavy oil and natural bitumen (oil sands) from Canada, extra heavy oil from Venezuela's Orinoco belt, chemical additives, gas-to-liquids, coal-to-liquids and oil shales.
- 12 For an overview, see FoEE, 2010. *Tar sands - Fuelling the climate crisis, undermining EU energy security and damaging development objectives*; http://www.foeeurope.org/corporates/pdf/Tar_Sand_Final_May10.pdf.
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VJmovement.com, 2011. *Uganda's Oil Boom: Curse or Cure?*; <http://www.youtube.com/watch?v=v86XwpK91FU>

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37 ActionAid International, Oil Change International, and Vasudha Foundation India, 2011, op. cit. & IEA, 2011, op. cit. & forthcoming.

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Foundation, 2009. *Strengthening African Governance: Index of African Governance*, October, pp 7-18. See: <http://www.worldpeacefoundation.org/africangovernance.html>.

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Map of Africa (topographical and political)

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Back cover: Bitumen found near the surface near MBoukou, Dionga, Congo. © Elena Gerebizza



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