



OIL IN UGANDA

Everyone's talking about oil. We capture the whole conversation.

Editorial

| By Belinda Katuramu

Don't ignore the women

Six years after Uganda's oil discovery, popular expectations in the oil-bearing areas have not yet been met and conditions have worsened for most women.



Women shoulder the biggest burdens and negative effects that come with the discovery of oil. Some have lost family land and can no longer cultivate and provide for their families. Some have lost their family support system as their spouses move to the oil areas to access employment opportunities. Environmental risks such as oil spillages that contaminate water bodies affect health and in turn the women- for women also shoulder the biggest burden of taking care of the sick. Thus, more lucrative benefits from the oil sector- like employment opportunities and compensation from land- have fallen mostly on men to the exclusion of the women.

Yet, a woman's right to land is a critical factor in improving social status, economic wellbeing and empowerment. Land is a basic source of livelihood. It is the key

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Not just a man's world



Photo: Tullow Oil

Joan Namukasa, a Tullow Oil drilling engineer, inspects a well site in the Albertine region.

A 2012 report by ENERGIA, an international network on gender and energy, notes that Uganda's National Oil and Gas Policy of 2008 makes no mention of gender—and that gender has barely featured in public debate around the country's oil prospects.

On the centre pages of this issue we highlight some important ways in which oil affects women differently

from men, and how women risk enduring the 'curse' of oil while missing out on the 'blessings.'

We also report on the booming sex trade in oil-rich Hoima District, and on the continuing controversy over compensation for property taken over for oil activities. And we profile three women who, far from missing out, are doing well at 'manly' jobs in the

Petroleum Exploration and Production Department (PEPD).

Elsewhere, we report on the recent troubles of Tullow Oil plc and hear from Francis Kamulegeya, head of Pricewaterhouse Coopers in Uganda, about the business opportunities that oil brings to the country. Enjoy.

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Is Uganda ready to handle 700,000 tons of oil waste?

| By Beatrice Ongode

Could it be re-used rather than buried? And can Ugandan companies benefit?

A major spill or a fire at an oil well would be an environmental catastrophe. But, while fearing such a disaster, Ugandan environmentalists also worry about how the country will manage an unavoidable result of oil production—large amounts of waste.

Some industry reports indicate that around 0.37 kg of drilling waste is generated for every barrel of oil produced. If Uganda produces 1.8 billion barrels of oil over the next 20 or so years, it

will come with nearly 700,000 tons of waste. Is Uganda ready?

"We do not have the facilities, frameworks and mechanism to handle any oil waste," according to Frank Muramuzi, Executive Director of the National Association of Professional Environmentalists.

He says that waste management guidelines so far put in place by the National Environment Management Authority

(NEMA) are neither detailed nor tough enough.

Former NEMA head, Dr. Henry Aryamanya Mugisha, defends the guidelines, saying they require the oil companies to adopt a "precautionary" approach.

Isaac Ntujju, a senior environmental inspector with NEMA, admits that "When

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agricultural input and a major determinant in enabling the farmer access other products and services. Available statistics show that between 70-80 percent of the population survives on agriculture with 90 percent being women yet they only own a fraction of the land.

The World Bank, amongst other international organisations, recognizes women as a solution to the world's economic-social problems. When a woman can contribute to her family's income, at least 80 percent of her contribution goes toward creating a better future for herself, her children, and her community. Educating, empowering and advancing women fuels significant growth across sectors: mortality rates drop and health outcomes improve, educational opportunities increase and illiteracy rates decrease, families earn more and economies and states grow stronger and more stable.

However, government's silence on economic empowerment of women has only made the situation worse. Most of the consultations that led up to the famous oil bill, that eventually became law, did not capture the voices of the women. It inevitably catered to men, while ignoring gender inequalities and the unique issues faced by the women. Today, women remain the only victims with no podium to air out their views.

The civil society organisations in the area are overwhelmed by the "bigger picture" and pre occupied with the immediate human rights violations and have ignored the more "incidental" women's rights. Only a few organisations have made attempts to address women's unique issues and very few women have benefited.

Since it is evident that empowering women in these regions will uplift their status, the onus is upon all stakeholders such as government, civil society, local and religious leaders and the community to ensure that there is maximum participation of the women. They ought to promote capacity building and knowledge sharing on how to address the issue of gender inequality. Otherwise, with the overwhelming negative effects associated with oil and their impact on the women, ignoring them can only make the situation worse.

Belinda Katuramu is a Project Coordinator and Legal Officer at Global Rights Alert.

Is Uganda ready to handle 700,000 tons of oil waste?

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the oil drilling started, we were not sure how to handle the wastes." But, he adds, "We managed to build capacity over time."

Yet a recent capacity needs assessment, funded by the Norwegian government, found serious weaknesses in NEMA and other environmental "pillar agencies."

Joel Garubo, an engineer and waste manager at Epsilon, a local company that deals in transportation of industrial wastes, echoes these concerns. "This fear about oil drill waste is worsened by the incapacity of the institutions and authorities involved," he says.

And no plan has yet been agreed for the permanent treatment and disposal of the wastes.

Drilling waste from the exploration phase is being stored in containerised pits at sites in Tangi (Nwoya District), Kisinja (Hoima District), Ngara, Bugungu and Kigongole (Buliisa District). But this is only a temporary measure and, when oil production begins, there will be much more waste needing safe, permanent disposal.

How harmful is it?

Oil waste includes rock particles that are drilled out of the well shaft together with a mixture of water, clay-like mud and various 'drilling fluids' that are pumped in to the well to cool and lubricate the drill bit and to force out the oil. To this are added filings from wear and tear on the drill bits.

According to David Nkuttu, an environmental consultant who has worked with Neptune Petroleum, this 'water-based mud' method is used in most of Uganda's oil wells and is relatively harmless. He says the main additive, barium sulphate, is not toxic. And, he concludes, because more than 98 percent of water-based drilling mud is composed of natural ingredients, it can "be turned into fertile top soil."

Dr. Aryamanya-Mugisha agrees, but also reveals that "the oil drill wastes were tested during the preliminary stages from various laboratories and the reports indicated small amounts of lead and cadmium. These heavy metals can cause cancer and birth defects." The waste therefore needs to be treated and rendered harmless before it can be disposed of safely.

The former NEMA chief adds that CNOOC (the China National Off-shore Oil Corporation) is reportedly beginning to use more complex and

potentially harmful drilling fluids in 'directional drilling' under Lake Albert. This, he says, "will compromise the environment."

Recycling opportunities

Experts agree, however, that if the waste is treated it can be put to several uses—including improving Uganda's notorious roads. In the USA, solid drilling waste is often used to make road foundations, and this is said to be a safe and cheap substitute for other materials.

In an e-mail exchange with Oil in Uganda, Bill Bader, the Director of the Waste Management Bureau in Kansas, USA, wrote that in Kansas drilling waste is used in road base construction, where it is covered by either asphalt or concrete.

He adds that Kansas law permits the spreading of drilling waste on farmland, but the practice is considered as "disposal" and not a "beneficial use."

Mr. Nkuttu points out that in China, too, "After they have separated the liquid and solid oil drill wastes, the solid is treated and then used in making blocks that are used in constructing houses and road pavers."

David Luyimbazi, the Director of Planning at the Uganda National Roads Authority agrees that the oil drill waste could be used for road foundations, but that this is not being done due to "complex issues regarding its treatment."

The cement industry could in theory benefit from the drilling waste too. Nilesh Modha, the plant manager at Tororo Cement, acknowledges that the drilling waste can be a useful raw material for manufacturing cement, but says that this would be very costly at the moment.

"The wastes can be used in cement manufacturing, but with specialised equipment which the plant does not possess presently," he explained.

It seems, then, that Uganda's drill wastes could be usefully recycled—but investment in capacity and treatment would first be necessary.

Waste is good business

In many countries waste management is a profitable business, but in Uganda the sector is in its infancy. Local companies do not yet have capacity, equipment and capital to deal with oil waste.

According to Isaac Ntujju two local companies, Green Label and Green Impact, have been licenced to trans-

port the wastes to the designated storage sites. A third, US-based company, Providence, had a licence to both transport and "manage" waste but, says Mr. Ntujju, this has expired and is in the process of renewal. "So for now, there is no company that has been awarded the licence to carry out waste management."


Dr. Aryamanya-Mugisha, who has served as a consultant to Providence, tells a different story. He says the company pulled out from Uganda because it was not willing to spend an estimated US\$ 30 million in developing oil waste facilities when the government has no clear plan. The status and prospects for licencing are too uncertain to risk the investment.

Yet on the NEMA website, five companies have been cleared to transport 'hazardous waste' which, according to the NEMA public relations officer, includes oil drilling waste.

Epsilon's Joel Garubo argues that the bidding process set up by government is too rigorous. Tough laws, he adds, have demoralised local companies.

"No company wants to invest in this industry because it is too expensive and there is lack of expertise. Purchase and shipping of equipment cost a fortune," he says. He adds that NEMA and other government agencies should train people in waste management so that local content is strengthened.

So, while environmentalists call for tough laws and stronger institutions to enforce them, private sector players argue for more corporate capacity building to support local content. These remain major challenges to effective and safe waste management. □



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Oil money lures sex workers to Hoima

By Chris Musiime, Flavia Nalubega and Beatrice Ongode

Across the world, infrastructure projects that employ large numbers of men soon attract a camp following of sex workers. It is now happening in Hoima.

"I can't leave with you now but I can come to your hotel in the morning and we spend the whole day together."

So says Sarah (not her real name) a 'waitress' in a down-town Hoima bar. She says she would get into big trouble if she left without the permission of her boss—an elderly lady who, according to staff and customers, is of Rwandese origin. All dealings with men have to be cleared by the boss.

Sarah enjoys perfect cover as a waitress in this cheery, dusty town, but the real aim is to meet clients willing to pay for sex.

Unlike the other bar staff, she and two other young women hardly serve a drink to any of the revellers in the fully-packed joint. The only times they go to the counter it is to pick a drink for themselves, offered by one of the customers.

Residents and leaders of the town say the sex trade in Hoima has increased over the last couple of years, as young women flock to the oil-rich district in search of opportunities.

"Sex trade was there before but it was not evident. Now that there is oil, the trade is booming," says Hoima Municipality Mayor, Grace Mary Mugasa.

"I am told that some people go to Kampala, pick some sex workers and put them on a minibus and bring them to Hoima especially on Fridays. They return to Kampala on Sunday or Monday," she adds.

Some individuals have established themselves as pimps, vending the girls to the highest bidder. Because most local girls are scared of engaging in the sex trade openly, these bosses lure women from other districts, including Kampala.

"I come from Nateete (a Kampala suburb) where I was living with my mother," Sarah revealed. "My sister brought me here to work at this bar," she said, speaking fluent Luganda.

Barely more than 20 years old, Sarah said that her boss controls all eight girls working at the bar and any man interested in any of them has to talk to her first.

Once cleared by the boss, the client can hire any of ten rooms at the back of the bar for ten thousand shillings a night.

One of the rooms serves as the girls' living quarters.



Jackie (not her real name), a tall, brown woman possibly in her mid twenties, confirmed that indeed the boss could punish Sarah if she went off with a man for the night. Jackie, however, offered to put in a good word for her, saying that she was from Rwanda too and related to the boss.

Jackie has been in Hoima for a year. She says she is unemployed but suggestively adds that she could "do anything", implying that she too is available.

At another bar, Grace (not her real name), also a 'waitress,' says she can leave at the end of her shift.

In her twenties, Grace says that she comes from Kakoba, a suburb of Mbarara town, and comes to Hoima to work for three months at a time.

Working at bars seems to be the cover of choice for Hoima's sex workers. Only a few ply their trade publicly at another down-town bar and lodge called Sax Pub, next to the bus park. There, the transactions are done in the open, as in some places in Kampala.

The sex workers charge between ten and fifteen thousand shillings, although foreigners are likely to spend more.

Down to the village

But the price is at least three times that in rural areas, especially those close to the oil fields.

In Kabale parish, where the government plans to build an oil refinery, Julius Ssekate, the vice chairman of Kitegwa village told *Oil in Uganda* the influx of foreign contractors into the area has boosted the sex trade.

"Sex is the most booming business around here. Women are highly demanded for by the contractors who work in the oil wells and on the road," he says.

According to several men in the village, the women here charge between 50 and 100 thousand shillings for their services. Such steep charges eliminate local residents as customers, as only the foreign workers can part with such sums.

In this area, the majority of the clientele is from KOLIN Construction, the

Turkish firm building the 92 kilometre Hoima-Kaiso Tonya road.

In addition to having enough disposable income, locals say, the Turkish workers do not understand the currency well and hence end up paying more. Most are forced to use a middleman to get to the girls because they cannot speak any of the local languages.

The rates differ depending on whether the client is interested in protected or unprotected sex.

In some areas, unprotected sex is cheaper than safe sex because of local perceptions within the industry. According to some community workers, the sex workers appear to believe that clients who demand protected sex may be infected with HIV/AIDS and hence should be charged more money.

"The situation is worrying because we are going back to the battle we won years ago in managing the AIDS scourge," says Conrad Mugume who works for a local community based organisation that is involved in HIV prevention.

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Oil money lures sex workers to Hoima... Continued

Local leaders look on

Despite the secretive nature of the sex industry, everyone is aware of its growth in Hoima, but local leaders have done little about it.

Yet given its implications on public health, community leaders have focussed on initiatives to protect the health of the involved parties.

According to the 2011 Uganda AIDS Indicator Survey (UAIS), HIV prevalence in the mid-western region, of which Hoima is part, was 8.2 percent, almost one percent higher than the national average of 7.3 percent.

The demographics in the region will most likely be destabilised by the steady migration of fortune seekers from other parts of Uganda into the area. Some of these people are coming from areas with an even higher HIV prevalence rate, like the central region.

Grace Mary Mugasa, points out that even a good number of the hawkers who were chased from the streets of Kampala last year have ended up in Hoima.

"Our borders are so porous. Some Congolese have settled down and are now residents," she adds.

She says that the Alliance of Mayors fighting HIV/AIDS, manages a project

called Most At Risk Populations (MARPS), which is aimed at mitigating some of the risks faced by the sex workers.

"The sex workers are among the MARPS. We have had several meetings with them. We have tried to befriend them and counsel them and they even disclose to us some of the reasons why they became sex workers," she says.

"Most of these women engaging in the sex trade are semi-illiterate, some are orphans, others have been disappointed by their husbands, while others have been chased away from their homes because of domestic violence," she adds.

Mrs. Mugasa further explains that the District has started some initiatives, like vegetable growing, to engage some of the sex workers "to enable them earn a living from descent businesses."

Legalisation calls

Civil society organisations have persistently called on government to legalise the sex trade in Uganda so that it can be better regulated.

Section 139 of the Uganda Penal Code Act, criminalises prostitution, with culprits liable to a seven year jail sentence.

Rose Nakayi, from the Human Rights Peace Centre, told *Oil in Uganda* that government should consider institutionalising the trade without conflicting with the law.

"The move from criminalization to protection of the sex workers should be the key issue," she said. "We have seen that arresting the sex workers has not stopped them from conducting the business and more young girls are being groomed in this kind of activity," she observes.

"We should focus on how the activity can be regulated in such a way that we do not only protect the sex workers but also avoid having them exploited by their clientele," she says.

The Federation of International Women Lawyers (FIDA) Uganda Chairperson, Laura Nyirinkindi, agrees and argues that the clandestine nature of the sex trade is aiding its expansion.

"If this exercise is legalised, government will be able to plan for the sex workers. For instance when planning for retroviral drugs, they will know that they are planning for sex workers, elders or other groups of people. They will know how much of the drugs should be sent to a given place," she says.

Collins Muyizuka from the National Women's Council, calls for a "more pragmatic" approach, in addition to legalising the trade.

"Government should create a Women's Fund, something similar to the Youth Enterprise Fund, where these women can sign a Memorandum of Understanding that allows them to easily access soft loans that can enable them start business," he advises.

"If the government can partner with NGOs and start small SACCOs (savings and credit societies) like in Kenya, then most of these sex workers will restrain from conducting this activity," he urges.

But former Ethics and Integrity Minister, James Nsamba Buturo, believes that the church has a bigger role to play.

"The religious institutions should start warning the public about the dangers involved in sex work because even though we have a law that they should be arrested and imprisoned for seven years, these laws are not being used," he said.

"The existence of these laws will not matter once the activity escalates, so people choosing to change is what will matter. What we should know is that our country is not prepared for the new lifestyle we are about to see," he concludes □



Many new buildings like this one are coming up in Hoima town as realtors anticipate good returns on their investment from the businesses that will eventually set up shop in the area.

Photo: Allan Sempebwa

Compensation remains a thorny issue

| By Flavia Nalubega and Beatrice Ongode

People affected by oil activities remain unhappy about compensation deals, and it is not clear how the rates are set.

"We have not received fair compensation for our properties," complains Albert Wathum, a resident of Panyimur fishing village on the shores of Lake Albert in Nebbi District.

Since Total E&P began exploring in the area, he says, many crops have been destroyed in the process of surveying, building access roads and oil well pads—but compensation for affected families has been way too low.

"Usually, a grown mango tree can fetch up to 120,000 shillings (USD 46) but we are being given 80,000. A cassava garden is being compensated at only 120,000."

Bitter complaints can also be heard in Hoima District's Buseruka sub-county, where the government has gazetted 29 km² of land to build an oil refinery. Locals complain that progress towards compensating them for land and homes they will have to give up has been painfully slow and has meanwhile left them without any source of subsistence.

"We were told not to carry out any activities on this land. We are not supposed to even grow crops that can sustain us," says Gideon Onyut, who recently returned to his home in Kyapaloni village, Kabaale Parish, after dropping out of Senior-2 studies at King's High School in Hoima.

"I had to drop out because our only source of survival in this area is farming and since government halted all activities in the area, including agriculture, my family does not have money to feed us and pay my school fees," Mr. Onyut explains.

"Mr. Bashir Hangi [a communications officer with the government's Petroleum Exploration and Production Department] comes here and lies to us day in day out. He does not tell us the truth" claims the embittered 20-year-old. "Our own local leaders are also not helpful. They want something to be given to them before they help us."

Mr. Hangi counters that he has made several visits to the site to update locals on progress towards obtaining the land. He says a Resettlement Action Plan was developed last year and handed over to the Government Valuer who has since approved it.

"This process was accomplished in December and we are yet to start compensating the residents. However, this does not mean that on receiving payment they immediately leave the land. We will give them ample time to resettle and they are free to continue cultivating until we complete the com-

pensation process. The compensation process is most likely to start at the end of this financial year and will go on for over eight months," he explains.

Who fixes the rates?

The question of how compensation rates are set remains clouded in confusion. Local government leaders and central government officials give conflicting versions of how the system works.

According to the Chief Government Valuer, Benon Okumu, district governments first develop a compensation matrix.

"The Land Act, Section 59, provides for the District Land Boards to submit rates of the respective districts every year," he wrote in an email response to Oil in Uganda. "One of their functions is to compile a list of compensation payable in respect of crops, buildings of a non-permanent nature or any other thing that deserves repayment. This is what we use to compensate the locals."

Yet some local leaders insist that the 'mathematics' of the compensation rate are in fact handled by Ministry of Lands in Kampala.

"The problem we are facing is that these matrices are not usually brought to us for approval. They only involve us when misunderstandings arise," according to Robert Okumu, LC-5 Chairman of Nebbi District.

He claims that the compensation matrix being used in Nebbi was originally drawn up for Buliisa district, and has just been applied wholesale.

But according to Dennis Obbo, a communications officer in the Ministry of Lands, "Payment is based on what figures they [districts] come up with. We only adopt an alternative matrix if the prices are unfair." District leaders, he says, should not blame central government for unfair payments.

Information deficit

Mr. Obbo also draws attention to lack of information as a cause of delays and potential conflict over compensation payments. Often, he says, "the locals lack certificates of ownership, neither do they know what property must be compensated and by who. There is lack of sensitization on such matters."

Certificates of ownership can be issued to people who own customary land but lack land titles. Local leaders, Mr. Obbo says, should help people through the process, which should not last more than two months

How To Obtain A Certificate Of Land Ownership

Rural people do not hold land titles for farms that they have inherited through customary tenure but they can obtain certificates of ownership, according to Denis Obbo, a Communications Officer in the Ministry of Lands.

Such certificates, he points out, can protect families from illegal land grabs.

The procedure is:

- A person who claims to own land fills an application form available from the District Land Board, giving details of the property. The application costs 5,000 shillings.
- The District Land Board calls a meeting with local elders to confirm the boundaries of the land.
- If ownership is confirmed by this process, a certificate of ownership is sent to the Government Valuer's Office in the Ministry of Lands for confirmation and stamping.
- The stamped certificate is then sent to the recognised owner and can be used to lawfully sell or lease land, and to support claims for compensation.

The process should take only 30 working days, says Mr. Obbo. The trouble is, he adds, few people know that it is possible to obtain the certificates.

Illustration: Drile Victor



While women are often responsible for cultivating gardens for food and income, men normally hold the land title which gives them greater rights to consultation and compensation.

Adapted from SEGOM, World Bank

Compensation—a village snapshot

| By Chris Musiime and Beatrice Ongode

People are glad to get the money, but some say it is not enough and others report that it sparks family disputes

OGWENDO SUB-COUNTY, BULIISA DISTRICT: Located about 16 kilometres from Buliisa town, this quiet agricultural village is dotted with small mud houses, most of them roofed with shiny aluminium sheets.

There is a stark contrast between the greyish, peeling, aging walls of the small houses and the brand new sheets they are roofed with.

“The compensation money excites people here,” says Onencan Paolyel, who runs a local community based organisation in Buliisa town council. “They buy motorcycles and *mabati* (roofing sheets).”

Fancy roofing appears to be one of the more popular ways of spending the windfall that farmers received as compensation for their crops late last year, when surveys were being conducted in their area, near the productive Ngara-2 oil well.

Most of them received at least half a million shillings, and admit that they had never earned that much money, yet they also believe that they deserved more.

In some cases, several members of the same household would be compensated individually if their gardens were neighbouring each other.

“Sometimes it brings conflict because Buliisa is a cultural area,” says Onencan. “It is mainly the women who till the land. But when it comes to compensation, the men want to take the money. The man says the garden belongs to him, because he owns the land, but the woman argues that the crops are hers,” he explains.

An eight month wait

Florence Akumu, a forty-one year old divorced farmer, received five hundred thousand shillings last year as compensation for her crops that were cut down in March 2012.

She told *Oil in Uganda* that she had expected to be paid at least one million because “a lot of maize and cassava was destroyed” when some men “made a road through my garden.”

Ms. Akumu said that the ‘road’ was about two metres wide, and cut through her entire plot of land, measuring about quarter an acre.

She added that no one had negotiated with her before invading her garden, but some men told her she would be paid for her loss. The sum was not disclosed.

“About eight months later in November, some people who we were told



Photo: Beatrice Ongode

Zainab Nsekanabo temporarily fled her home after receiving compensation.



Photo: Beatrice Ongode

Florence Akumu used the money to feed her family for about five months.

were representatives of Tullow, but different from those who cut down the crops, came here and called a meeting under that tree,” she said, pointing to a huge mango tree, a stone’s throw away from her compound.

“They would call out a name, you go to the desk, you are given an envelope and told to sign. I received five hundred thousand but I don’t know what my neighbours received because each of us was handled individually,” she said.

She admits that it was the largest sum of money she had ever held in her entire life but regrets that she did not do much with it.

“I bought clothes for my three children, and used the balance for feeding. It lasted about five months,” she said.

Marital conflict

Forty year old Zainab Nsekanabo, a farmer, had a sadder recollection of her ‘rich’ days.

She said that her marriage temporarily fell apart and she was forced to abandon her marital home after receiving compensation of eight hundred thousand shillings for her crops—maize, cassava and beans—on her one acre plot of land.

“My husband said he wanted the money, but I refused because I was

worried he would use it to marry other women,” she said.

“So I hid the money with a friend and left the home for a while,” she revealed, leaving behind her five children.

When she returned a month later, her husband had given up all hope of ever accessing the money. She then retrieved the money from her friend and used it to purchase clothes for her children, utensils, and other household items.

“We are now back together and okay,” she concludes □

Women climb the technical ladder

| By Flavia Nalubega and Beatrice Ongode

Historically dominated by 'oilmen' – tough guys in hard hats and hard-bargaining male executives – the oil industry is slowly following other business sectors in opening its doors to women. Uganda is no exception, as is shown here by profiles of three women who are rising fast in highly technical positions. For this to become a trend, however, Uganda will need to perform better in senior school science. According to the National Examinations Board, sciences were a weak area in last year's A-level results and the number of girls taking sciences actually dropped.

Photo: Henry Bongyereirwe



'You don't need big biceps!'

Proscovia Nabanja was the first woman technical staff to be employed by the Petroleum Exploration and Production Department (PEPD), where she now serves as Senior Geologist.

She joined the department 13 years ago after completing a BSc in Geology and Chemistry at Makerere University.

"It was hard to blend in because we had several field trips which had harsh, aggressive conditions," she recalls.

But the mother of three persevered and has since risen through the ranks to become the point person supervising a team that reviews technical proposals from the oil companies on all issues relating to the oil wells.

"It could be maybe where the oil well is going to be drilled, a suspension of

the well, should it be plugged and abandoned or which horizon within the well should be tested. We discuss it with the oil companies after which we prepare the consent and the companies can go ahead and execute those programmes," she says.

Mrs. Nabanja also deploys staff at the oil wells to monitor the oil companies' compliance with the approved work plans, and is responsible for managing the data that comes out of the drilling processes.

"I have to ensure that the data is per what was approved. If it is the right data, I ensure that the team reviews and evaluates it," she says.

She explains that it is such data that is used to estimate the quantity of oil and gas that the country possesses.

Mrs. Nabanja does not regret her decision to disregard advice from some of her friends to leave the 'masculine' sector.

"Some of my friends encouraged me to leave the profession and go for something more feminine but I never listened to them. You still maintain your feminine nature and it has nothing to do with developing biceps," she jokes.

Now with a Masters in Geology from the Imperial College of Science, Technology and Medicine in the United Kingdom, and several other professional qualifications from Uganda and overseas, Mrs. Nabanja certainly has what it takes to enforce technical compliance in a sector she describes as "dynamic."

"Everything is urgent and any minute wasted, billions are lost," she concludes.

Photo: Henry Bongyereirwe



Not frightened by 'manly' jobs

Thirty-year old Catherine Amusugut has worked at the Petroleum Exploration and Production Department (PEPD) for five years, having started there as a trainee while still pursuing a BSc in Geology and Chemistry at Makerere University.

She confesses that geology was not her dream career at the start, but she has grown to appreciate it and has no regrets. She has since upgraded to a Masters in Petroleum Geoscience from the University of Aberdeen in Scotland, thanks to a scholarship from PEPD.

Ms. Amusugut's job entails reviewing the oil companies' work programs and advis-

ing them on how to make them more efficient.

"They usually present a range of things like seismic surveys they are planning to undertake, the wells they are going to drill, where they are going to drill them, for how long and for what reasons. We listen to all this and make sure that all this information is convincing enough to allow them to explore that area, and appraise it, to decide if we have commercial resources there and to decide if we go on to develop this field," she explains.

In executing such a critical role, Ms. Amusugut, who coordinates a team of ten people, has on some occasions found

herself advising oil company executives forty years her senior, who have cut their teeth over time in the industry.

"Someone may think you are questioning their competence yet in actual sense you are just doing your job. But the good thing is we have gone to the same schools they (oil executives) have gone to and we have been exposed to the same technologies that they have been exposed to," she adds.

Ms. Amusugut is certainly not frightened by 'manly jobs' and hopes to head a drilling operation at an oil well one day.

"Whether we find oil or not, it would be good experience."

Photo: Henry Bongyereirwe



'Being part of the process is exciting'

At only 31, Pauline Irene Butebe is part of the government team working round the clock to ensure that Uganda's oil refinery is constructed.

Her role as a Petroleum Refining Officer, includes ensuring that equipment brought into the country to assemble the refinery and pipelines is of the right quality and standards.

"We have crude oil and this has to be processed to come up with petrol, diesel, kerosene and aviation fuel. My job is to

ensure that whatever machinery we put in place to convert this crude into these finished products is appropriate," she explains.

Ms. Butebe took a BSc in Chemical and Process Engineering at the University of Dar-es-Salaam, after which she obtained a Masters in Advanced Chemical Engineering from Manchester University, with a bias in refinery design and operation.

"Like any other woman, when you join a male dominated sector, there will always

be some misconceptions that you are a woman and cannot handle the job so you really need to work hard. I have always ensured that I do my work to the best of my ability," she says.

"I love my work because I see it contributing to the transformation of Uganda. Being part of this process of changing the nation is just exciting," she says.

Ms. Butebe has a passion for research and plans to commence doctoral studies in Product Design and Engineering in 2015.

Women, oil and poverty

Uganda's Oil & Gas Policy (2008) says that oil resources should be used to eradicate poverty. Yet it makes no mention of gender—even though the national Gender Policy (2007) stresses the importance of gender equity for poverty eradication.

Oil does not cause gender inequities. But, if these are not addressed, few women will benefit from oil, and life may become harder for many.



REPRESENTATION and INCLUSION

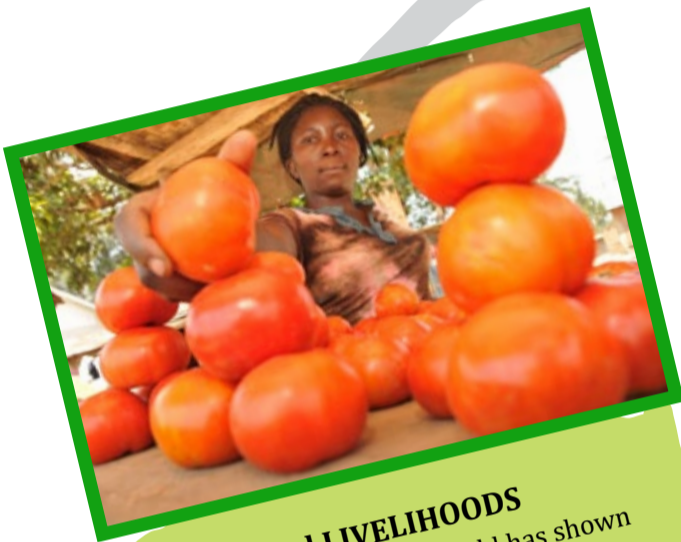
Despite Uganda's apparently progressive national gender policies, local power structures remain male dominated. Traditional leadership is exclusively male. Men occupy a large majority of elected offices and influential administrative positions. For example, according to a study by Energia, only 4 percent of district land officers in Uganda are women.

One result is that when oil companies or central government officials travel to oil areas to meet local leaders or to 'consult' and 'sensitise' communities, women are all too often marginalised. They lack information about what is happening and their perspectives and needs are overlooked in decision making processes.



EDUCATION

Despite progress towards gender equality in primary education, only around half of Ugandan girls across the country enter senior school, and many of them drop out after one or two years. According to a 2012 UNESCO report, more than 80% of young rural women (aged 15-24) in Uganda lack the "foundation skills" they need "to earn a decent living." The same report says that there are 890,000 illiterate Ugandans in this age group, and 59% of them are women. (In Hoima District, 46% of women are illiterate, compared to 24% of men, according to Dr. Consolate Kabonesa.) The government is creating more vocational training places, but these are largely biased towards male-dominated trades such as carpentry and construction. Rural women are thus poorly placed to benefit from any oil boom.



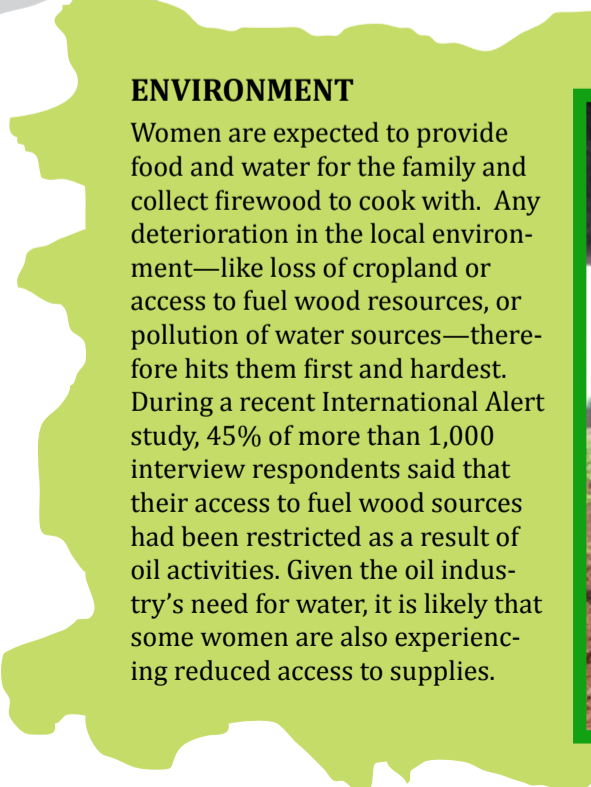
JOBS and LIVELIHOODS

Research across the world has shown that when women from poor households have a little cash they usually spend it on their families, investing in the welfare and future of their children. When men get cash they're likely to spend more of it on themselves.

The oil industry does *not* bring many jobs. For rural people, the opportunities are mainly for casual labour in clearing bush or crop land for construction, working on roads, or as messengers, drivers, cooks and cleaners. The great majority of these jobs go to men. Reports from Bunyoro suggest that women are often turned away even from unskilled work because they don't have 'qualifications.' The cultural expectation is that they should look after the home and the garden: going out to earn money is seen as men's work.

It is also reportedly common for bosses to demand sex in return for giving women work. For this reason, some women who do manage to get casual work from oil industry contractors try to hide the fact, because they don't want to be seen as having 'slept' their way into a job.

There are some opportunities for women to supply fresh farm produce for oil camp and construction workers. [See article on page 10] But better-off farmers are best placed to seize these opportunities.



ENVIRONMENT

Women are expected to provide food and water for the family and collect firewood to cook with. Any deterioration in the local environment—like loss of cropland or access to fuel wood resources, or pollution of water sources—therefore hits them first and hardest. During a recent International Alert study, 45% of more than 1,000 interview respondents said that their access to fuel wood sources had been restricted as a result of oil activities. Given the oil industry's need for water, it is likely that some women are also experiencing reduced access to supplies.



MIGRATION and DISPLACEMENT

Oil is fuelling several levels of migration. In the oil areas, men are moving from villages to towns in hope of finding work, and this can increase the labour burden for women left at home. Outsiders from further afield are also coming in, and this can increase the pressure on local resources. In addition to this informal migration, oil and construction companies are bringing in contracted workers, with a reported increase in 'social vices' including commercial sex which brings a risk of spikes in sexually transmitted infections. (See story on page 3) On the other hand, according to a recent International Alert survey, 10% of more than 1,000 people interviewed in oil bearing areas say that they have already been displaced from their homes to make way for oil development.



HEALTH

Family health is critically important to women as the main caregivers, but the health of women in poor households is often neglected. Research by Ugandan economists Sarah Ssewanyana and Ibrahim Kasirye finds that, across the country as a whole, men spend more money on health care than women. This is despite the health care needs of women in pregnancy and childbirth. (By the age of 19, 70% of women in Hoima District have given birth, according to Dr. Consolate Kabonesa.) A 2007 study of rural Ugandan women published in the Canadian Journal of Nursing Research found that "the health problems most commonly reported were sexually transmitted diseases, especially syphilis, abdominal pain, genital sores, and mental stress" but that, rather than going to a health facility, women's "coping strategies" included "ignoring the problem."

Any increase in the disease burden will likely make matters worse. Risks associated with the oil boom include a rise in sexually transmitted infections, illnesses related to pollution, including gas flaring, and a potential rise in industry-related injuries such as traffic accidents.



INFRASTRUCTURE BOOM

Oil is driving rapid growth of towns and trading centres in the oil-bearing area as well as roads and other infrastructure to facilitate extraction of the resource. Many entrepreneurs, large and small, stand to benefit from this boom, but the various barriers listed on these pages prevent most rural women from cashing in. On the other hand, pressing infrastructure needs of rural women—for, eg, safe and accessible water supplies, affordable health care in easy-to-reach clinics—have been largely neglected in the multibillion dollar investment boom.



LAND and COMPENSATION

Rural Ugandan women do much more farm work than men but in most cases have little or no rights over the land, which is held by the men.

Where compensation is due for loss of land or crops, women are often required, alongside their husbands, to sign agreements. In some cases, they do not know, perhaps cannot even read, what they are signing. And when the compensation money comes, it goes to the husband, who may spend it selfishly—marrying a second or third wife, if he can. This can trigger marital disputes, violence against women, and family break-up.

There is overwhelming evidence of speculative land purchases and 'grabs' in oil areas as outside investors move in to acquire land that, in ten years' time, might be worth a small fortune. Where land is sold in private deals, women have to bear the consequences of what might be foolish decisions by their husbands. Where entire communities are dispossessed or brought into conflict over shady deals, women still have to find ways of feeding their children.

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Thanks to Belinda Katuramu and Betty Akol of Global Rights Alert, Harriet Gimbo and Jacob Rosdahl of Action-Aid International Uganda for their help in discussing these issues—but they are not responsible for errors or omissions!



Hoima farmers seize the moment - with some Irish help

| By Chris Musiime and Beatrice Ongode

The prospect of a ready market for fresh produce in the oil camps is motivating farmers in Hoima District to start up horticultural projects.

Some farmers have abandoned rice growing and are now venturing into planting tomatoes, cabbages, green pepper, carrots and other vegetables.

The farmers sell their produce to the

Hoima District Farmers Association (HODIFA), which goes an extra mile by picking the produce from their gardens and transporting it to the Hoima Business Enterprise Centre.

This Centre was set up by Traidlinks, an Irish not for profit organisation, with funding support from Tullow Oil and the Uganda Investment Authority. It operates a weekly market day,

at which produce is brought, cleaned and packaged for sale to the oil camps and other businesses in the area.

According to Traidlinks officials, their target is to develop an agricultural supply chain in the Lake Albert Region that will provide 35 percent of Tullow's food demands in the oil camps in the next two years.

“To be honest with you, this horticulture is a new thing in Hoima” - Monica Kabatoora, HODIFA Chairperson.



Photo: Beatrice Ongode

Margaret Kasaija, a retired civil servant grows mushrooms at her residential house in Hoima town. She has been supplying mushrooms to the local supermarkets in Hoima town for a while now but expects to expand and supply some of the oil camps.

With the help of Traidlinks, which advised her on packaging her product, she recently submitted some samples to Tullow Oil and is anxiously awaiting their feedback. If Tullow's response is positive, she says that she has trained some local women in mushroom growing who will beef up her stock in case she is overwhelmed by demand.



Photo: Beatrice Ongode

Mrs. Dinah Mwesigwa is a member of the Mpaija Nigina Horticultural Group in Hoima District. She grows cabbages and tomatoes.

She says that she is happy with Traidlinks and HODIFA because they buy her produce from her farm and offer her a good, steady price. In addition, she does not have to incur transport expenses to take her produce to the local market.

“They came here and educated us on the type of seed they need for us to get a good harvest. Now everything we grow is bought. We are told that the produce is eventually sold to the oil camps,” she says.

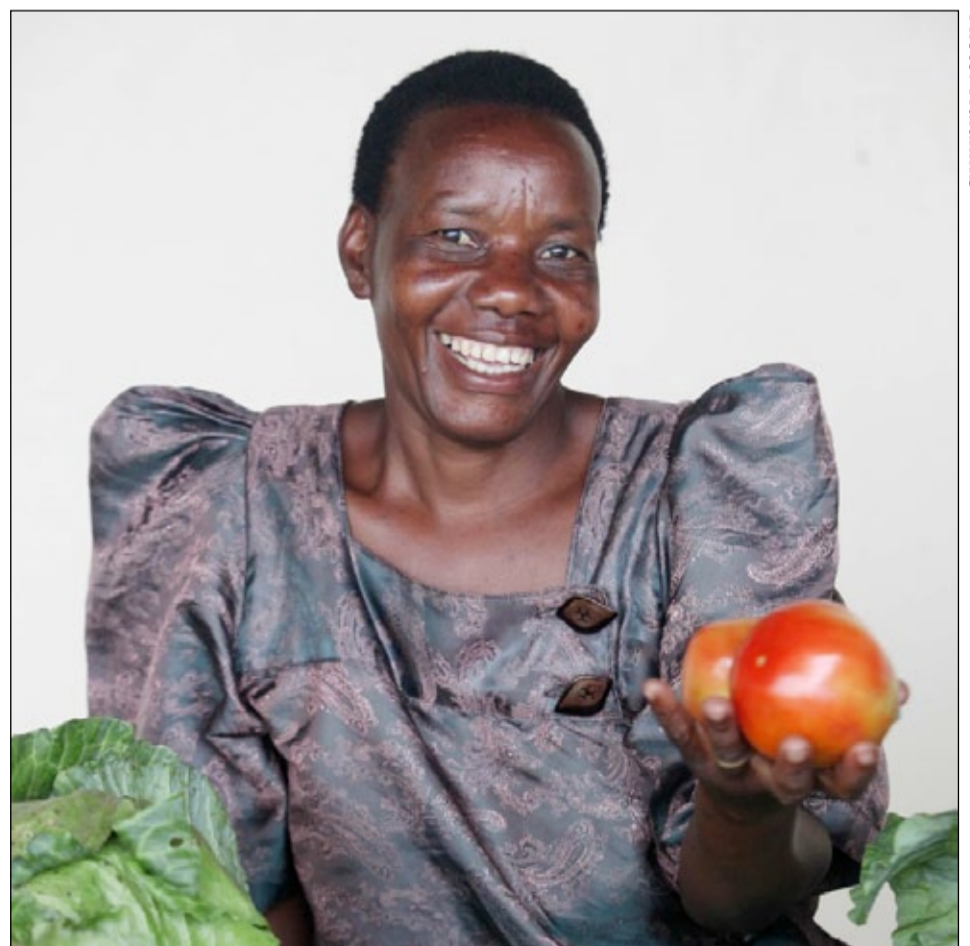


Photo: Traidlinks

Mrs. Byaruhanga shows off some of the vegetables from her garden at the Enterprise Center

Opportunities in the oil and gas sector abound

Mr. Francis Kamulegeya is the Country Senior Partner of PWC in Uganda, the largest multinational professional services firm in the world. A tax professional, Mr. Kamulegeya has consistently urged Ugandans to exploit the abundant opportunities emerging from the country's nascent oil and gas industry. We spoke to him about the changes the oil and gas industry has triggered in Uganda's business environment.

Oil in Uganda: How do you assess Ugandans' preparedness to earn from the oil industry?

Francis Kamulegeya: If you talk to the E&P companies, they are looking at first oil in 2018, it could even go to 2020, depending on how fast the government moves. For them, first oil means production, selling and earning.

But for the service companies, they don't have to wait for first oil and they are already making money. So the likes of Baker Hughes, Halliburton, MSL, Bemuga Forwarders, PWC, that is where the money is and that is where the focus should be as far as local content is concerned.

We need to look at what the requirements are for services, materials and goods for the industry. If we are talking about building a refinery, can we complain when the equipment is shipped from Houston, Texas, and we say no, we Ugandans should be the ones fabricating and making these bits and pieces? Of course not.

But if we are talking about feeding people in the (oil) camps and they are bringing in tomatoes, cabbages and carrots from South Africa and I am not saying they are doing that then we have a problem there.

The opportunities are very big, but you need to see them in small sizeable chunks.

If you think about the value chain and the way it progresses, at exploration, there is a lot of hi-tech work for which we don't have the capacity yet. We don't have the knowledge and equipment.

Yes, people are now going to university to study geology, geosciences or geophysics, but guess what, oil has been discovered. Having said that, there is still a lot to be done in Kenya, Southern Sudan, Democratic Republic of Congo and after that they will go to Indonesia or wherever. We can start exporting very high quality intellectual capital.

But if you were to ask me (for advice) now, whether to go to Kigumba (Petroleum Institute) to learn high tensile, high precision fabrication and welding, or go to Dundee University and study geology, geophysics and geosciences, I would say go to Kigumba because that's where the money is. And that is where you can guarantee that you are going to be working for the next twenty or thirty years.

The challenge with local content is how one defines it and looks at it. It is good to have a policy where you want owners (of businesses involved with the oil companies) to be local people because it ensures that you are working with stakeholders. But you cannot legislate for that.

None of the multinational companies providing services here now have a local shareholding of forty eight percent (Referring to Section 125 of the Petroleum [Exploration, Development, Production] Act, 2013, which provides for the creation of joint ventures between international contractors and local Ugandan companies to supply goods and services to the oil industry that are not available in Uganda. In the new law, the Ugandan company must have a shareholding of at least forty eight percent in the joint venture).

So if this becomes law, does that mean they are in breach and have to sell forty eight percent of their equity to Ugandans? If they have to do that, how many Ugandans can afford that? Or is the government expecting these multinationals to give away forty eight percent?

...Section 122 of our law (Petroleum [Exploration, Development and Production] Act, 2013) was really good practice. It states that a company operating in the industry should, wherever possible, procure services, materials and goods from the local people.

It adds that the local people must have the capacity to add value to meet the health and safety environment standards of the petroleum activities carried on by the licensee. Because at the end of the day, if the licensee contracts you to go and clean their site and you are disposing things in a manner that is not compliant, it is the licensee who is going to be in trouble.

So, I would say that we are prepared but we have failed to communicate the opportunities to the common person in a language they understand and we are yet to fully appreciate the scale of opportunities in this industry.

When you hear that first oil is in 2018, it sounds like five years away from now, but you work backwards, if all the issues are resolved- refinery, pipeline, then the investors get their development plans approved, you could find that by the end of this year, we have major commitments from the three companies in terms of investments in the sector.



Photo: PWC

Mr. Francis Kamulegeya

Then of course the nature of this industry is that from commitment to raising money can take anything up to two years, but once the money is released, there will be serious activity.

Imagine if by the middle of 2014 there is an agreement in principle to build a pipeline and refinery, new licence rounds have been opened up and the whole of Kanungu and all those other areas are now opened up, imagine the flurry of activity that would be going on, the kind of equipment and tonnage of plant and machinery that has to come into the country to build the refinery.

So who is talking to the transport sector about that, because we don't have a railway and we are not going to have one in two or three years from now.

If you speak to the E&P companies they will tell you that about eight hundred thousand tonnes of equipment, machinery and apparatus will be coming into this country. A typical quality truck carries fourty tonnes.

So one has to talk to people in the transport sector.

Look at the laundry services, who is washing those oily dirty overalls? Some French company whose expertise is in laundry services of that kind is going to come and set, if they are not here already. Who is feeding them? Where are they going to sleep?

Even us in the professional services sector- insurance, accounting, banking- it is a question of appreciating the opportunities that are going to be there.

Whereas you may not be able to bank an E&P company, you still need to understand that we shall need two thousand trucks in Uganda and these are brand new one hundred thousand dollar trucks, compliant with all the health and safety issues. Then you go and speak to people who operate coaches that ply the Juba-Kampala route and show them where the money is.

That intervention needs to happen now. In my view it's not happening

Opportunities in the oil and gas sector abound Continued

and the moment it doesn't happen or doesn't happen properly, we have a potential problem because those in the know will come and do it here and then we start getting the resentment.

In light of that, do you foresee a shift in the way our commercial banks look at indigenous investors?

...If you approach them in the traditional banking way, asking them for their audited financial accounts for the last three years, you might struggle and you may end up discarding them.

You need to look at people from the prospects of the future and cash flows and contracts they have signed with potential clients as opposed to the history. The history is useful in terms of track record but someone whose balance sheet reflects five million dollars is coming to you with a proposal of one hundred million

dollars, as a banker you may need to look at it differently.

Is the oil industry going to make a difference to Uganda's Stock Exchange, do you expect some of the big international service providers to list or cross-list, for example?

...When you talk about money markets, those companies you are talking about are already listed on their home Exchanges.

The concept that we should be talking about is cross listing.

...Cross listing is a commercial decision but it is very unlikely that they would be coming here to cross list to mobilise a lot of finances and funding from Uganda because that money is not there.

But on the other hand, when you cross list and you have people in Uganda owning shares in those companies, then there is a certain

element of local ownership which comes with its own advantages. When somebody in Hoima or Masindi or Kanungu feels he is a shareholder in a company which is operating in his area, he may start treating that company differently than looking at it as some foreign organisation which has come to exploit and get whatever they can and then go away.

Secondly, what would be the benefit of cross listing because it also comes with its own challenges. The share price in London or USA may be five dollars, but when you look at our local stock exchange, the value of the shares is usually lower.

What impact will oil revenue have on a small and not-too-diversified economy like Uganda's?

...The major debate which has not taken place yet in Uganda is the potential impact of oil and gas on other productive sectors of the economy. I

think that debate needs to be heard, and we need to talk about agriculture, manufacturing and tourism. Those are the main sectors which are going to transform this country of ours.

Oil is finite, it is going to be here for twenty or twenty five years. Agriculture is going to be the differentiator for the prosperity of our economy.

We also need to strike an appropriate balance between investing to try and address the shortfall that we have on infrastructure, power and energy and other capital goods, and putting away some money for future generations.

You may find that the future generation will value a country which has electricity, roads, good quality education system, than a country which has a trillion dollars on a sovereign fund in Europe. Our leaders and politicians need to strike a balance. □

Read the full interview on www.oilinuganda.org

Oil brings insurance boom

Insurance companies are among those hoping to benefit from Uganda's oil.

"An insurance section was included in the upstream bill and in it, players in the oil industry must insure with local insurance firms," points out Ibrahim Kaddunabi, Executive Director of Uganda's Insurance Regulatory Authority.

"Everything" in the oil sector is insured, says Mr. Kaddunabi, "Because the principle of insurance works on insuring anything with value."

Just as private citizens may take out personal insurance policies to cover the risk of losing property through fire, accident or theft, so too oil companies and contractors insure against damage to oil installations, machinery and even the oil itself.

In addition, the companies insure against "public liability," including "environmental concerns," Kaddunabi adds. This means that if there is an accident resulting in compensation claims or environmental clean-ups, the insurance company will pick up the bill—having, of course, first received up-front premiums from the oil companies.

Asked how much the companies will pay in total for insurance cover, Mr. Kaddunabi replied that "I do not

anticipate that everything combined may go beyond 10 percent of the entire value because the highest rate we have in the market is about 5 percent."

But even 5 percent of the "entire value" of Uganda's oil value chain is a huge sum, amounting to hundreds of millions of dollars.

The Insurance Regulatory Authority is "training players (insurance companies) themselves in preparation for these new areas of insurance," according to Mr. Kaddunabi. This is necessary because of the complexity of assessing risks and values in the oil industry, and developing highly specialised kinds of cover.

"Insurance brokers are also re-organising themselves to target the oil and gas sector," he adds. "The big three international companies Marsh, AON and Gras Savoye are on board. When you have those ones and other strong local ones, then we are strong enough to handle any possible risk in oil and gas."

Nevertheless, any one company could find it difficult to meet a very large claim against a policy it had offered.

For this reason, Kaddunabi says, "We have also encouraged insurance players to form an insurance oil pool. All the players will come together as a team and put money in one single

pot, from which all of them are free to pick funds to compensate the oil companies [in case of losses or accidents or loss]. About ten companies are vigorously involved. They have sent their personnel for trainings and are also organising themselves internally to underwrite oil and gas sector players."

"Ugandans are looking forward to benefiting from the oil and local insurance is one way of addressing this," Mr. Kaddunabi concludes. Employment within the insurance sector will be boosted with oil production hence Ugandans will tap from these opportunities." □

Interview by Flavia Nalubega



Most Ugandans associate AON with Manchester United Football Club. But the company has big plans for insuring Uganda's oilfields

Uganda pioneers 'cable-less 3D seismic' surveys

| By Jean-Michel Enjolras

What is a 'seismic survey?' Total E & P Uganda's Director of Geosciences explains all—and says his company is doing all it can to minimise the environmental impacts.

Hi-tech 'cable-less, three dimensional seismic' surveying is being used for the very first time in onshore Africa in order to develop an accurate, underground picture of the Albertine Graben oilfields. This technique, deployed by Total E&P Uganda, has the added advantage of lower environmental impact on environmentally sensitive areas.

Seismic surveying is a commonly used technology in petroleum exploration and production. It is based on the same principle as the ultrasound scanners used in medical clinics: sending out sound waves and developing a picture from the waves that bounce back.

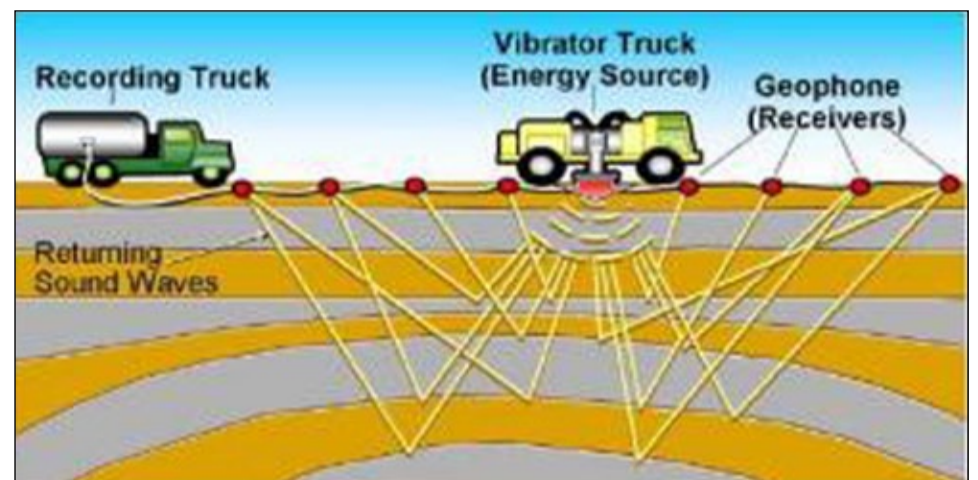
In the oil industry, sound waves are used to define and study the shape and characteristics of rock formations below the surface of the earth. The sound waves are emitted by vibrator trucks or explosives. A series of geophone receivers and a recording truck then register the returning waves and measure the travel time

between the source and the receiver.

At the exploration stage, the most commonly used technology is the '2D' seismic. This involves laying telemetry cables, over land that has first been cleared of vegetation, along parallel lines separated by distances of between one and five kilometres. This gives a broad picture of the subsurface and helps identify the most likely places to find trapped hydrocarbons.

'3D' surveys are mostly used for more detailed appraisal once hydrocarbons have been discovered in an area. In this process, the data set is acquired along a grid, and so provides a three dimensional picture of the subsurface. This more accurate image of the size and characteristics of the discovered oil field enables optimisation of development plans—for example the number, location and trajectories of the future production wells.

For its 3D survey in the Murchison Falls National Park, Total chose very



recent and specific equipment in order to reduce the impact on an ecosystem that is both highly sensitive and also very important for tourism.

On the recording level, for instance, the 3D seismic is acquired with the latest, cable-less technologies available in the industry—the Fairfield ZLand system.

The field recording units, or 'nodes', consist of cylindrical boxes measuring 15 x 12.7 centimetres and weighing 2.2 kilos. They have an internal power supply (Li-Ion battery), internal geophone receiver, GPS positioning and inbuilt memory.

These nodes are positioned at 25 metre intervals along lines 100 metres apart. They are placed below the ground level and covered with a few centimetres of grass or soil. They are easy to put in place, allowing a minimum cutting of the vegetation and a minimum disturbance to the wildlife. After a few days of recording, the nodes are picked up and the data are downloaded in the laboratory at the base camp.

The energy sources are deployed on lines perpendicular to the receiver lines, and are of two different types. Mini vibrators (see picture) send a signal through a vibrating steel plate pressed on the ground. In areas where the vibrators cannot access, light explosives charges, are buried six metres deep in a slim hole.

This cable-less seismic system is a high performance, low impact surveying method ideally suited to work in sensitive environments. It produces quick results with less manpower and fewer supporting vehicles. Optimum coverage and quality is achieved without deploying kilometers of cables. Thus it has a much more limited impact on wildlife and vegetation compared to other techniques.

This shows the commitment of Total and its partners to always look for

optimal technical solutions, and take every mitigation measures to minimize the environmental and social impacts of oil activities.

In line with its biodiversity commitment, Total E & P Uganda has also started what will be a growing series of biological surveys in collaboration with Ugandan Wildlife Authority (UWA). We have employed a biodiversity team to lead this work, monitoring animal and plant populations, defining avoidance maps ahead of activities, and compliance procedures to be followed during all operations.

We are investing in research, planning and equipment across all our departments to avoid the impact of activities, and are engaging national and international expertise to ensure the best possible standards of implementation, as well as complying with national regulatory requirements and internationally recognized best practices in all our operations.

Jean-Michel Enjolras is Director of Geosciences for Total Exploration & Production Uganda

“This technique, deployed by Total E&P Uganda, has the added advantage of lower environmental impact on environmentally sensitive areas”

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Troubled times for Tullow Oil

| By Nick Young

A company that once seemed blessed with the 'luck of the Irish' has seen its public image tarnished and its share price plummet.

It's been a horrible few months for Tullow Oil plc, the Anglo-Irish explorer whose oil discoveries in Uganda and Ghana made the company a big name in the global energy industry.

Firstly, the Government of Uganda's apparent victory over Heritage Oil & Gas in the London Court of International Arbitration (LCIA) was not just bad news for Heritage, it also has serious implications for Tullow.

The case concerned Heritage's liability to pay capital gains tax on the 2010 sale to Tullow of exploration and production rights in the Albertine Graben. Heritage walked away from the US\$ 1.49 billion deal with a huge profit, but disputed a 30% tax bill presented to the company by the Uganda Revenue Authority (URA).

The arbitration proceedings were theoretically secret but Ugandan officials and government politicians jubilantly announced in March that the tribunal had found in Uganda's favour: the tax claim was legitimate, and Heritage should have paid. (The government's disregard of the supposed confidentiality of the proceedings stands in marked contrast to its insistence that the confidentiality of production sharing agreements must be respected).

This is not good news for Tullow because the company had also disputed capital gains tax demands on its later sale of rights to CNOOC and TOTAL. The LCIA is not in fact a court of law, so its findings do not have the full force of legal precedent. Yet it now seems more than likely that Tullow too will have to pay the full amount that the URA billed for its 'farm-down' to TOTAL and CNOOC.

Meanwhile, a public battle in London's High Court between Tullow and its former partner, Heritage, produced revelations that embarrassed both Tullow and the British government.

When Heritage refused to pay its tax bill, the government of Uganda put pressure on Tullow—including threatening to revoke the licence of the Kingfisher field—to pay on Heritage's behalf. Tullow, anxious to win government approval for its own deal with TOTAL and CNOOC, eventually handed over the money and then sued Heritage to recover it.

When the case opened in London's High Court in March, emails from Tullow executives presented in evidence revealed much that the company would surely have preferred to remain private.

"I wouldn't be surprised if M7 [President Museveni] gets a fat wedge of election campaign money from some shadowy player for the rights to area 3A," wrote Angus McCoss, head of exploration, to senior colleagues in August, 2010. "Tullow paying GOU a fat lump sum licence fee ahead of the interlopers in lieu of the tax bill difference for a fat 40-year EDP basins licence could in my opinion be readily justified to shareholders as value-adding," he went on to suggest.

In another email, Mr. McCoss said it was "worth thinking about meeting M7's short-term needs and demands." Under cross examination, Tullow Company Secretary, Graham Martin, accepted that by "short term needs" McCoss meant President Museveni's need to win the 2011 election but denied that McCoss was proposing a payment to the president's campaign funds.

Yet this was enough to have not just the Heritage legal team but also British and Ugandan media sniffing bribery, and for Uganda's Attorney General to demand an explanation and apology from Tullow.

The court also heard that the UK Foreign and Commonwealth Office not only lobbied hard on Tullow's behalf over the tax issue but probably broke its own rules in doing so.

A draft letter from Africa Minister, Henry Bellingham, to President Museveni in 2010 was reportedly first sent to Tullow and amended by Tullow Chief Executive, Aidan Heavey—a donor to the UK's ruling Conservative Party—to better reflect the company's position. The original

document was marked 'restricted.'

It also emerged that Miriam Shearman, the wife of the then British High Commissioner to Uganda, Martin Shearman, was working for Tullow at the time.

Hard on the heels of the bad press generated by this, came another public relations blip for Tullow.

The company is the founder and chief backer of Invest in Africa, a corporate charity that sponsors struggling UK premier league football club, Sunderland FC. The club hit UK headlines in early April when it appointed a self-declared "fascist," Paolo Di Canio, as its manager. Former UK Foreign Secretary, David Milliband, resigned from the club's board of directors in protest.

Invest in Africa announced that it was re-considering the sponsorship deal. But this came too late to prevent football fans in Ghana from complaining that Tullow, whose main cash income comes from its offshore operations in Ghana, was happy to sponsor "racist" British clubs, but last year "refused" to sponsor the Black Stars, Ghana's national team.

British NGO, PLATFORM, joined the fray in an interview with the BBC, repeating its claim that Tullow's contracts with Uganda allow the company "excessive" profits.

The Sunderland FC fracas attracted little attention in Uganda, but Tullow received a further drubbing when The Daily Monitor ran a story claiming that the company paid foreign consultants exorbitant fees to evaluate 'corporate social responsibility' programmes without offering local consultants a bite at the cherry.

Altogether these events have left Tullow looking politically inept at a time when its exploration luck has also dipped. The first well in an Ethiopian drilling campaign hit technical snags, while a second exploration well in French Guyana proved to be dry. In response, Tullow share prices fell to an 18 month low. In an effort to re-focus its portfolio, the company has announced the sale of interests in Bangladesh as well as part of its interests in offshore Ghana.

Tullow's discomfort is not necessarily good for Uganda. President Museveni's determination to dictate terms to international companies has been vividly underlined. International investors, however, will have underlined "high-risk area" on their maps of Uganda.

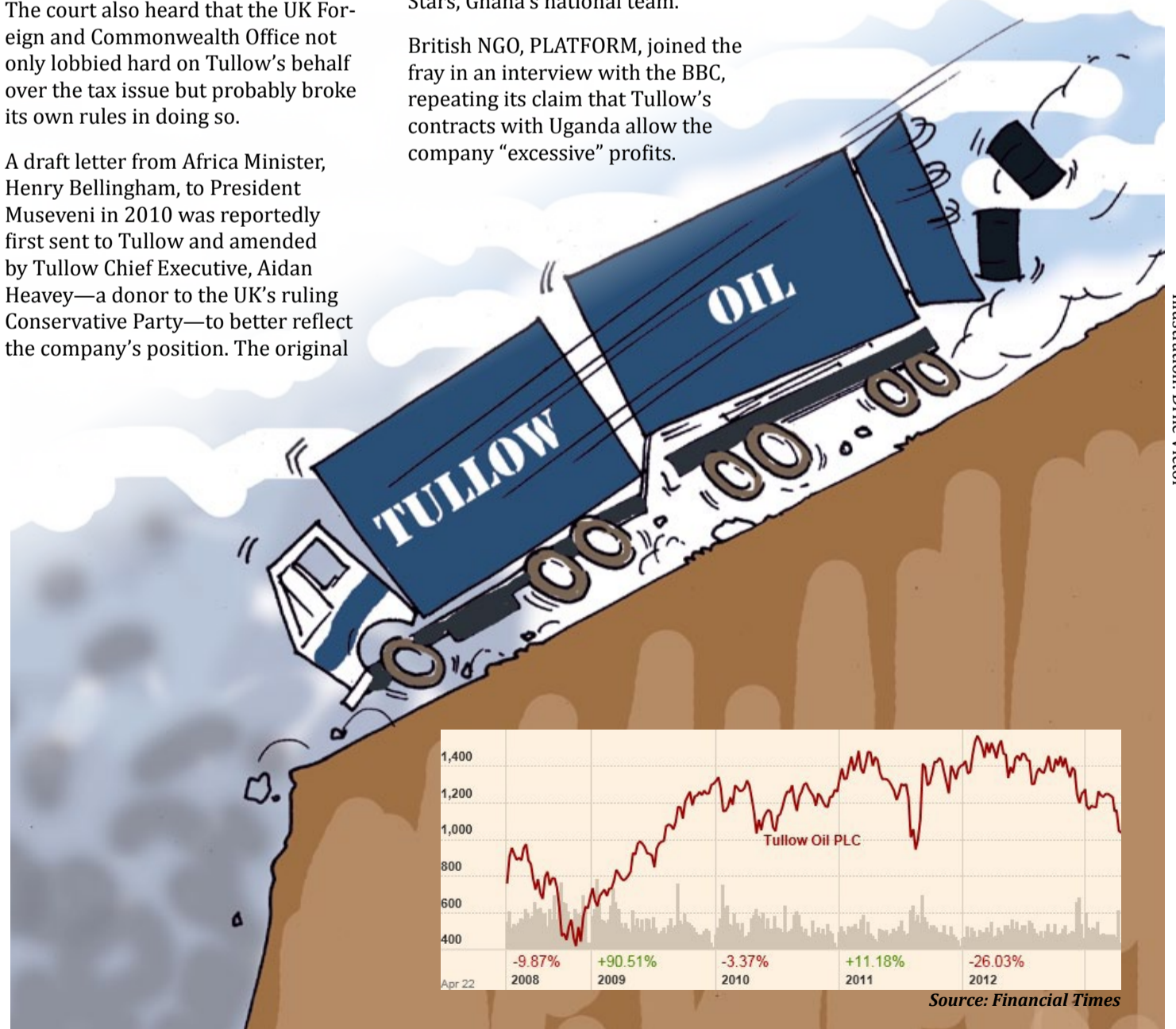


Illustration: Drile Victor

A drilling engineer is not made in a day

| By Cathy Adengo

It takes years of advanced, on-the-job training to qualify as an oil well drilling engineer—but three Ugandan women are staying the course.

It is 2 a.m. on a cold, wet morning in Northern Kenya on board the Weatherford Rig 840 drilling Ngamia well and Joan Namukasa is struggling to keep her eyes open. She washes her face with cold water and takes a cup of coffee as she walks up and down the staircase to the rig floor all in a bid to stay awake.

One of only three women drilling engineers in Tullow Uganda, Joan is used to being on site with her colleagues Susan Namuganyi and Susan Musiime-Okello but on this shift she is alone as 'the Susans' are away at a training course in Aberdeen, Scotland.

Oil and gas is traditionally one of the world's most male-dominated industries and it is a great achievement to gain a place in it on an equal footing with the men.

"A career in petroleum engineering is hugely interesting and I would love to see more women in the profession because it is truly a rewarding experience," says Joan.

Joan Namukasa Kanya joined Tullow in 2010 as part of a Graduate Drilling Engineering Training Program where graduate engineers spend time on Tullow's various sites to gain operational experience.

She is in charge of producing daily drilling operations reports, preparing mud reports and project cost estimates and following up on the service companies.

Her training requires her to be at the rig site to learn about the drilling operations as per the design, programme and detailed procedure of the well. The trainees help ensure that the service companies and drilling contractors follow the programs to the letter.

Susan Musiime-Okello also joined Tullow in 2010 as a graduate drilling engineer fresh from university. She had gained a Masters in Petroleum and Environmental Process Engineering but lacked practical experience in the oil and gas industry.

Tullow was keen to develop and enhance her skills with further training and the hands-on experience required to make her a competent drilling engineer. She has spent much of the last two years at rig sites in Uganda such as Kigogole-6, Nsoga-2, Ngege-3 and Waraga-1, working alongside and learning from the more experienced personnel. Her role also involves supporting field operations from the office in Kam-

pala, under the supervision of more senior drilling engineers.

The third Ugandan woman trainee is Susan Namuganyi who joined Tullow as a graduate drilling engineer in 2011 and has since become a wellsite drilling engineer with a promising career ahead of her.

Since enrolling in the program Susan has worked on land rigs in Uganda and on deepwater projects in Ghana.

In addition to the practical experience, Tullow offers further in-class training courses at key petroleum engineering training institutions to supplement self-study modules and in-house learning.

It is often hard for women to be taken as seriously as men on technical subjects in the field of petroleum engineering and as such it is important for them to prove their technical abilities. Tullow makes this possible

through its structured development programme, which is internationally recognized and offers experience across the world in countries where Tullow Oil operates.

According to Susan Musiime-Okello, being female has not hindered her learning at all as she is treated with respect by her male counterparts. As well the training and study opportunities she has received, the recently married mother of one has had the chance to travel the world and experience different cultures, which helps her to interact and work with a global team.

As the process to becoming a skilled drilling engineer takes time and lots of experience, Tullow is continuously developing new programmes to continue the learning process.

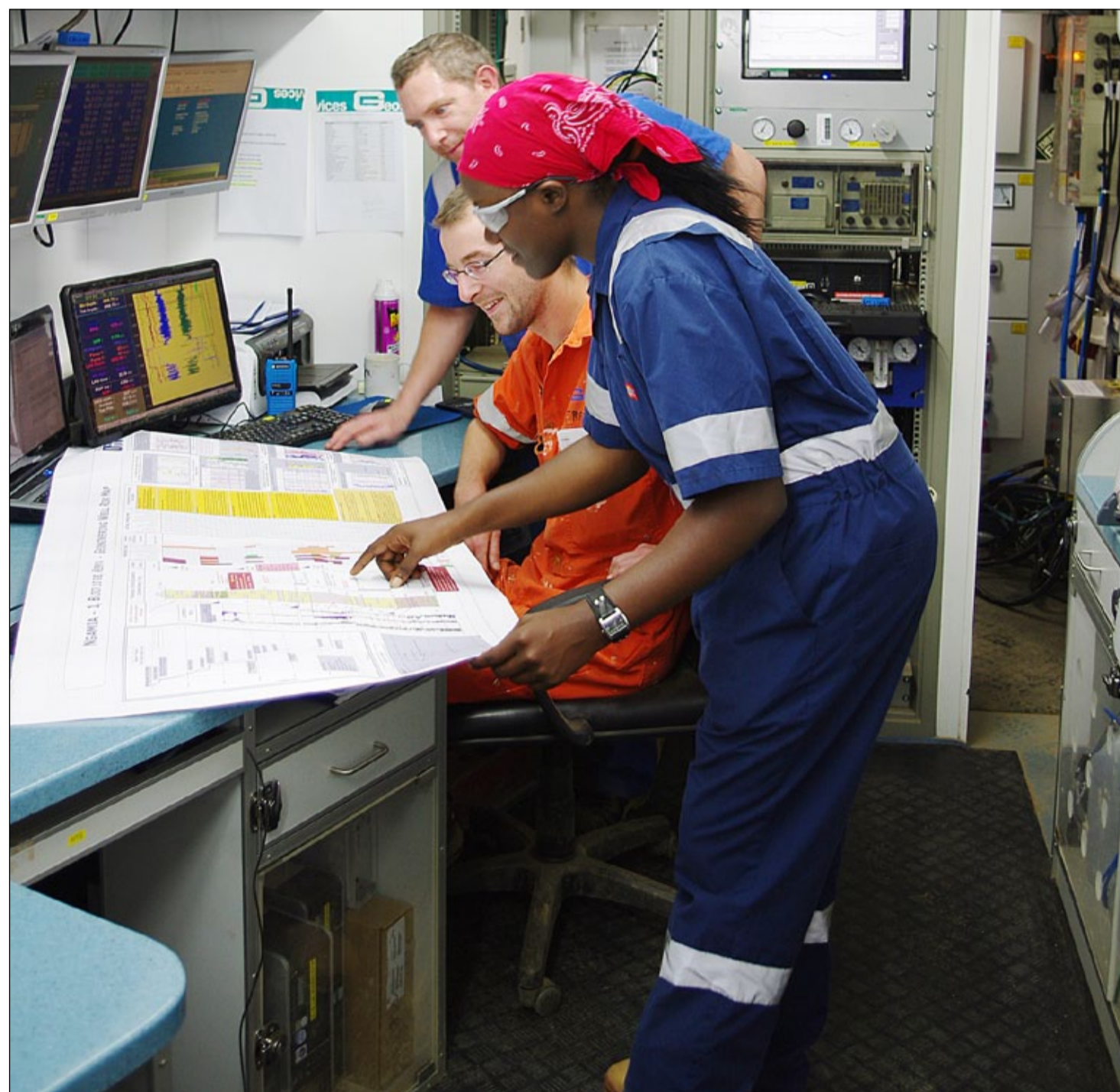
In 2011, a Well Engineering Development Program was launched with 14 participants from six countries—

Uganda, Kenya, Ghana, Ireland, South Africa and England. It is a structured program that involves 'accountability' to measure the trainees' progress through assessment of modules and courses they have attended.

So far, the three Ugandan women drilling engineers have attended a total of eight training courses in various countries. The training and mentorship opportunities they have received have not only empowered them as individuals, but are nurturing them into well groomed female engineers advancing their country's national development.

Yet they all agree that more should be done to make the industry more attractive to women. According to Susan Namuganyi, "With the right training and ability, a girl can be as good as a guy. Gender is irrelevant." □

Cathy Adengo is Tullow Uganda's Corporate Communications Manager



Joan Namukasa, a Tullow Uganda drilling engineer, reviews technical reports with colleagues at a rig site.

Photo: Tullow Oil

Illustration: Drile Victor



AND THE WHOLE COMMUNITY THINKS THIS IS A GREAT IDEA



Adapted from SEGOM, World Bank

Capturing women's voices is critical to representative community consultation and may require their direct participation



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Ben Shepherd: **Oil in Uganda: International Lessons for Success:** Outlines governance weaknesses and predicts worse to come if these are not addressed. Calls for "a national conversation" on oil policy, and examines the example of various other countries. Mr. Shepherd recommends that Uganda picks different elements of several models to fit its own situation. The report received a lukewarm welcome at its Kampala launch: civil society critics complained that it is too lenient on the government, contains little original research and excludes public opinion.

Mark Henstridge, John Page: **Managing a Modest Boom: Oil Revenues in Uganda:**

Uganda will not receive significant oil revenues for "at least a decade" and the income will not transform the country, probably amounting to no more than five percent of GDP over a 30 year period, according to this study. Yet, the authors say, if used wisely the revenue boost "will allow Uganda to put in place the institutional reforms, policy actions and public investments to underpin the changes in economic structure needed to sustain growth once the resource is depleted."

Columbia University: **Oil: Uganda's Opportunity for Prosperity:**

Argues that Uganda has a short window of opportunity to ensure that it extracts the full value from its oil endowment. Rigorous

preparation is required to avoid the 'resource curse'. The paper makes a total of 56 policy recommendations to establish the necessary legal, governance, environmental and social foundations for a strong oil sector before full-scale production begins in 2016. The paper concludes that the country is off to a good start, but that much work remains to be done.

Telly Eugene Muramira and Jacob Manyindo: **Sharing oil and gas revenues in Uganda:**

Describes and evaluates oil and gas revenue management models practiced in various countries. Recommends that government "should study and actively participate in determining oil extraction levels," and that royalties and taxes should be set at "concessionary levels" for the purpose of "attracting and retaining investments in domestic oil production."