

**Press review:
Mining in the South Pacific**

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Abbreviations in common use:

BCL: Bougainville Copper Limited

LNG: Liquid Natural Gas

PIR: Pacific Islands Report

PNG: Papua New Guinea

Websites:

Pacific Islands Report: <http://pidp.eastwestcenter.org/pireport/graphics.shtml>

PNG Post-Courier: <http://www.postcourier.com.pg>

PNG The National. <http://www.thenational.com.pg>

Mining/Petroleum 2016

Post-Courier, December 29, 2016

AS projected by the Bank of PNG (BPNG) and all other international financial institutions including the International Monetary Fund (IMF) and the Asian Development Bank (ADB) in 2015, 2016 proved another tough year on the business front. The global economy remained depressed and global economic growth weakened due to the lower activity in the advanced economies, Brexit announcement as well as the on-going rebalancing of the Chinese economy. Growth projections by the institutions for 2016 were all revised downward. The ADB to 3.0 per cent from the earlier 3.6 per cent forecast with it expected to pick up slightly to 3.3 per cent in 2017, while BPNG in its latest Quarterly Economic Bulletin (QEB) June 2016 released in November, quoted the IMF also revising its forecast to 3.1 per cent from its earlier forecast of 3.2 per cent made in April 2016. Further the World Bank's forecasts were relatively lower with its global growth projection of 2.4 per cent made in June 2016, compared to its January forecast of 2.9 per cent. Inflation picked up in the advanced economies but still remained at low levels, while in the emerging markets and developing economies remained steady as currencies stabilised or appreciated in some cases. The trickle down

effects of the global recession was felt in country, thus resulting in the National Government revising down its growth projections to 2.2 per cent.

However, there was some optimism this will pick up in 2017. Inflation levels in PNG on the other hand was revised up to 6.5 per cent with projection that it would rise further to 7.5 per cent in 2017. So how did this affect the economic sectors and what were the highlights for 2016? Chairman of the Chamber of Mines and Petroleum Gereia Aopi, at the 14th Mining and Petroleum Conference in Sydney, summed it up well for these two important sectors. Mr Aopi said latest statistics from the Department of Treasury showed the total mineral and petroleum export revenues at K17.86 billion in 2015 and this year anticipated to rise to K19.99 billion. He said this was a clear indication of the significant contribution made by the resources sector to the PNG economy generating billions in state revenue, thousands of jobs, business development and social improvements in health and education. Mr Aopi told delegates the situation remained equally challenging as it had been two years ago, but with some ray of hope. That being some gradual recovery in commodity prices. He said the last two years had been a roller coaster ride for most of the country's producing projects, with it being impacted by the El-Nino and the fluctuating commodity prices.

For mining in particular there was an air of uncertainty with some reforms underway, including the proposed changes to the current Act. He said the closure of PNG's largest mine-OK Tedi Mining, Porgera due to the El-Nino and Ramu as a result of a fatality at its processing facility at Basamuk were some of the pitfalls that had been recorded. However, these projects are back in production. On the exploration front in the minerals sector, the chairman had stated they were declining especially in the grassroots sector, while in the petroleum sector he had stated and according to Oil Search's estimate only 40 per cent of PNG's full oil and gas potential had been discovered. Of this total, about 15 per cent of that is being or has been produced, 25 per cent of it is discovered, while 60 per cent is still to be found. On the upside the chamber reported that headway is being made with Freida River in East Sepik Province and Wafi-Golpu in the Morobe Province. It noted that these two projects have the potential of propelling PNG onto the world copper stage.

For Freida, the developer PanAust has spent US\$65 million (K21.14m) and is looking at raising an additional US\$3.6 billion (K96b) to build an operation that will mine and process 40 million tons of ore annually. Work is expected to start in 2018 with production expected in 2024. According to Mr Greg Anderson, the executive director of the Chamber of Mines and Petroleum, the first stage of development would cost US\$2.6 billion (K8.45b) and yield an internal rate of return of 16 per cent. Also in the mining sector, another standout would be the progress by Canadian miner Nautilus who this year was able to successfully take out a bridge finance to progress the world's first ever deep sea mine. Another major highlight for the sector and in the petroleum sector by far would have to be the InterOil shareholders approval of ExxonMobil's offer to buy out 100 per cent of its shares. Oil Search had made the initial offer but InterOil had option for the deal with the American energy firm. The transaction was supposed to be completed by September but following an appeal filed by InterOil's former boss and shareholder Phil Mulacek, this has had to be differed until the matter has been resolved.

Papua New Guinea's Frieda River project still faces obstacles, says Managing Director Fred Hess EMTV News, 29 December 2016

PanAust [owned by the Chinese company, Guandong Rising Assets Management] is keen to start development of the Frieda River copper-gold project, Managing Director Fred Hess told the Papua New Guinea Mining and Petroleum Investment Conference in Sydney last week. But he warned there are many obstacles to overcome before a final decision to go ahead with the mine. Hess said the nature of the resource at Frieda River in West Sepik Province is well understood, noting that the

project 'has been known about' for almost 50 years. 'We are now in the phase where we are waiting for permit approval to take place,' he told the conference. 'Realistically, with the elections due next year, and with the size and complexity of the project, we are expecting that may take a while to get through to completion. 'Once that process is finished, we then sit down and look at what the environment is like for making an investment decision and essentially there are a number of conditions that will have to be met in order for us to proceed to that investment decision.' 'The embankment will take up about 40 per cent of the total capital cost of the project.'



PanAust's Fred Hess. Source: Business Advantage International

Environmental issues

Hess described the project as a substantial open cut mining operation dominated by a very large storage facility. 'That facility is designed to take the tailings from the processing plant and the waste from the mine and all of that sits behind a very large embankment,' he said. Hess said the embankment will take up about 40 per cent of the total capital cost of the project. 'It doesn't produce any copper but it is a necessary requirement in order to produce copper,' he told delegates. 'It is distinctive in the sense that PNG has traditionally taken cheaper forms of tailings and waste disposal routes. 'But, because of the issues that we have with Frieda River being upstream from the Sepik River, this is the solution we have come up with which we think addresses all the environmental issues that are so important to a project like this succeeding.'

Hydro power

'The other special part of this project is that, because of the size of the embankment, because of the size of the catchment it sits in and the amount of water that falls as rain and gets collected in the catchment, and because of the height of the embankment, the opportunity to produce hydro-electric power also presents itself. 'There are no free lunches. We must be mindful of the risks of developing large scale projects.' 'That makes it a unique storage facility in our assessment in being able to store not only tailings, mining waste and water but it can generate a return in terms of hydro electricity.'

World scale deposit

Hess said the project is of national significance, describing it as a 'world scale deposit' that is in the top 10 undeveloped copper deposits in the world. He said it will create many jobs for locals, but he warned that there are challenges. 'There are no free lunches. We must be mindful of the risks of developing large scale projects. Frieda River has substantial logistical challenges. It is inland; there are no roads. 'It is 'crucial not to jeopardise the livelihoods and environment for all those people downstream.' 'For access to the site for the main logistics required you go up the Sepik River for 600 kilometres and then you need a road for another 100 kilometres, up to the actual mine site. 'If you look at the terrain, it is relatively mountainous and it has a high level of rainfall all year round. That makes a challenging environment in terms of building stable structures and just undertaking

the whole construction effort.’ Hess added that downstream of the project is ‘some 30,000 people who are very mindful and watchful of what is happening upstream’. He said it is ‘crucial not to jeopardise the livelihoods and environment for all those people downstream.’

Challenges

Hess said there are no port facilities capable of supporting the mine and no electricity grid. ‘There are no roads. We are significantly infrastructure-challenged in this location. That challenge represents an additional capital burden to the project. ‘When making an investment that is multi-billion dollar, you want to have confidence over those multiple political cycles that the policy environment will remain constant.’ ‘Over the last four or five years there has been a significant decline in the price of copper and that represents a significant challenge to making an investment decision. Notwithstanding the recent jump, it still represents a long term challenge. What will the copper price be in order to support an investment decision? ‘The other major risk we face is the policy environment in which we invest. This project, to generate a return, will probably take at least two political cycles in PNG and to actually realise the benefits of those returns, many more political cycles. ‘When making an investment that is multi-billion dollar, you want to have confidence over those multiple political cycles that the policy environment will remain constant, support investment decisions and underpin confidence that we are doing the right thing by investing in PNG and not some other jurisdiction.’

Rewards

Hess added that the potential rewards are substantial, balancing the risk. He said the existing resource base of 2.5 billion tonnes of ore is ‘not closed off’ and that there are further opportunities. ‘We have a lot of confidence in developing the project. But I want to make it clear that we have to overcome a number of challenges.’ PanAust [owned by GRAM] controls 80% of the Freida River project, with Highlands Pacific the remaining 20%. As with all mining projects in PNG, the State has the option to buy in to up to 30% of the project prior to the granting of a special mining lease. PanAust applied for a Special Mining Lease in June 2016.

Graham hails Ok Tedi’s progress

December 29, 2016, The National Business

By GEDION TIMOTHY

DESPITE 2016 being a challenging year for Ok Tedi, the management and the workers have made significant progress in transforming it into a stronger and complete company. Managing director and chief executive officer Peter Graham said: “2016 has been a particularly challenging year for Ok Tedi with a restart in March after seven months suspension of operations due to dry weather. The management and workforce have made significant progress in transforming Ok Tedi into a stronger and more competitive company.” Graham said Ok Tedi was ranked on a unit cash operating cost basis among the best 25 percent of copper mines worldwide. “The company is again profitable and debt-free and has declared a dividend of K150 million while retaining prudent cash reserves on entering 2017,” he said. “In 2017, Ok Tedi will be focused on continuous improvement in safety, reliability and productivity and will maintain disciplined cost management in what is expected to be a continuing low commodity price environment.” Ok Tedi has played an important role in replenishing a depleting foreign exchange in the economy since its resumption. It is continuing to do so as its sales are all denominated in US dollars. Graham told The National in August that OK Tedi had made 12 export shipments since restarting operations in March. This brought in more than US\$200 million (K623.545m) into the forex market.

Government should assist mining resource owners

Post-Courier, December 29, 2016

NATIONAL Government should fund resource landowners to enable them to participate in major business contracts from the mines operating in the country. Hidden Valley's Nakuwi Landowners Association president Rex Mauri made the call saying the governments failed to protect the interests of landowners of major projects in the country. Mr Mauri made the call on behalf of the two major landowner groups at Wafi/Golpu gold/copper project- Yanta and Hengambu. "Hidden Valley gold mine had been paying royalty payments to Wafi landowners when the mine began its productions in 2009 and we want to ensure that they must also benefit from their world class gold/copper project," Mr Mauri said. "I'm now calling on the National Government to pay the goodwill payments to the landowners before the developer beings operations on their customary land and to enable them to participate in the development of the world class project. The landowners should not be overlooked by the government and their interest should be protected by the government before they issue out the mining license," he said to the developers."

The outspoken landowner chief said the landowners should not become spectators on their own land and allow the developer to proceed with construction without compensating them. He added that they don't want political interference from politicians who want to fast track the approval process without protecting landowner's interests. Mr Mauri alleged that the same developer is now moving into advanced stages of seeking the government's approval to grant them the mining license to proceed with the construction phase. Meanwhile he said that they will meet with government officials to discuss the signing of the revised mining agreement early next year. "Landowners will meet with senior government officials on January 10 to confirm the dates of the signing of the revised agreement," he said. "We have sent out letters to all the important stakeholders within the government to attend the meeting to discuss the signing of the revised agreement." "We will proceed to take out a court order to shut down the mine if senior government officials fail to attend talks," he warned. Mauri said they have sought legal advice to sue the State over the loss of business from the mine and to shut down the mine if the Government continues to delay the signing of the revised agreement in January.

RamuNico thanks landowners for support

Post Courier, December 28, 2016

PREVAILING low world prices on nickel, cost reduction and production issues were matters that the developers of the Ramu mine in Madang had to contend with in 2017. The environment would have been made even tougher, had it not been for the support of the landowners of the four impact areas of the country's lone nickel and cobalt mine. This was acknowledged and the landowners thanked, at a Christmas party its Community Affairs Department hosted for them in Madang last Wednesday. In attendance was the miner's vice president Wang Baowen. "Despite these financial deficits, we have overcome most of the technical problems with improved management system, and today our product output has improved with low operational costs. "We hope that the nickel price improves soon, so we can earn some profits and deliver to our project partners.

"Social security, including landowners' expectations on employment and business opportunities are major challenges as well. This happens everywhere and our project is no exception. We fully understand the expectation of our landowners," Mr Baowen said. Peter Tai, chairman of Maigari who spoke on behalf of his three colleagues Toby Bare (Kurumbukari Mine), Sama Melambo(Basamuk Refinery) and Jeffrey Kinang (Coastal Pipeline), thanked the company for its support and continued operation in spite of the economic challenges. Mr Tai, while vowing their continued support, had

also cited some outstanding issues and urged both the government and the developer to ensure a resolve.

Chairman of RamuNiCo umbrella company, Raibus Limited, Steven Saud representing all project landowner companies acknowledged that 2016 has been a tough year for RamuNiCo and landowner businesses due to the global economic situation affecting all PNG companies. He thanked the company for not quitting. General manager of Community Affairs, Martin Paining said RamuNiCo project is unique in PNG and urged the landowners to support it until the economic climate is healthy so all parties can benefit. “So we have a situation and environment to understand each other well and work for common benefit,” Mr Paining said. Meanwhile, the vice president said: “RamuNiCo management endeavours to bring the project operation to successful production design capacity of 100 per cent soon and deliver tangible benefits to all our partners including you all here today.”

KPHL eyes Western’s gas field

December 23, 2016, The National Business

THE Kumul Petroleum Holdings Limited (KPHL) is keeping a close eye on Western which has the potential to host small gas reserves. Managing director Wapu Sonk said the province had potential gas fields for commercialisation. Sonk said what the country had always considered “stranded gas” because it was either too small or too far out of the way to justify the investment, could collectively be a major supply of gas and condensate. “In the Southern Highlands and downstream in Caution Bay, ExxonMobil lead the joint venture which produced the ground-breaking PNG LNG project, a project which put PNG on the LNG map and proved once and for all that mega projects could be built in PNG,” he said.

“Total, another super major with an outstanding reputation, now leads the effort to commercialise the other massive gas reserves in and around the Elk/Antelope field. I’m sure that they, like Exxon will eventually bring this to fruition. “However there is another great gas reserve in PNG, a collection of mainly small fields, mostly scattered across the vast Western province, which when you add up, could have reserves of around 8 tcf (trillion cubic feet) of gas, a very viable commercial volume. “While some have been discovered decades ago, they’ve never been commercialised because they are too remote, too small, too many different owners, too far away from markets, and all together just too hard.

MOAs for mining projects set to go before NEC

Post-Courier, December 23, 2016

SEVEN of the memorandum of agreements (MOA) for the mining projects in the country have been completed and will be submitted to the National Executive Council (NEC) for approval in January, 2017. This is from the Mineral Resources Authority (MRA) while giving an update on the status of these agreements. Each of the operating mining projects have in place an MOA that sets out the benefits sharing arrangements between the National Government, the host provincial and local level governments and the immediate mine area landowners. The MOAs are reviewed periodically as agreed by the stakeholders. Those completed are for the Ramu mine in Madang Province, Simberi (New Ireland), Hidden Valley (Morobe), Ok Tedi (Western Province), Tolokuma (Central) and Sinivit (East New Britain). MRA’s managing director Philip Samar told the Post-Courier that once they have been approved by the NEC, the actual signing ceremony will be held at each of these project sites.

Also completed is Woodlark in Milne Bay, which is one of the two new approved mining projects. “This is to allow the project stakeholders to witness such an occasion,” Mr Samar said. He said the review process for Porgera, Lihir and Crater Mountain are yet to be completed. The current exercise will continue in 2017 along with the country’s first ever deep sea mine-Solwara-1. Mr Samar said this will be the first time that any government has submitted more than one revised MOA in the last 10 years. He said one of the improvements that the MRA is embarking on to improve is administration and transparency of the revised MOAs by making allowances for autonomous parties to administer each of them, and to facilitate annual meetings where the independent auditor presents the implementation scorecards for each of them. “This way all parties will be held to fully account for the implementation of their commitments on an annual basis,” he said.

Papua New Guinea’s oil and gas boom – blessing or curse?

Resource extraction projects in Papua New Guinea have a decidedly mixed history. Will things be different this time around? 22 December 2016, David Hutt, Mongabay



Customary landowner Auwagi Sekapiya of the Ubei Clan, Kosuo tribe. Photographed here in 2003 in front of a bulldozer, he was angry that a logging road destroyed his sago swamp. Photo courtesy of Sandy Scheltema/Greenpeace.

- A deadly conflict is currently raging in Hela Province, home to the country's largest gas project – the conflict does not directly relate to the gas plant there, but some fear the facility could be targeted.
- After a bidding war between multinationals, plans are moving forward to begin exploration of additional offshore gas fields.
- Despite its wealth of natural resources, Papua New Guinea remains one of the poorest countries in the world. Analysts say it is a classic example of the "resource curse" – a country where rich resources are associated with low levels of democracy and overall economic development.

Papua New Guinea announced last week that it is deploying its military to quell violence in Hela Province, home to the country’s largest oil and gas project. Tribal conflict in the area has turned deadly this month, raising concerns about human rights and public safety as well as the potential impact on the operations of the PNG LNG (liquefied natural gas) project, operated by ExxonMobil. The company is not directly implicated in the conflict. However, Prime Minister Peter O’Neill told Australia’s ABC news service the government would ask ExxonMobil and Australia’s Oil Search, a partner in the PNG LNG project, to provide logistical support to boost the security operation. The

plant has also been a recent target of anger in the highlands. In August, local landowners blockaded roads leading to a natural gas facility in Central Province, demanding delayed royalty payments. This month, with tension mounting in the area, landowners reportedly threatened violence against the plant if a promised equity deal falls through.

Papua New Guinea is a country in transition. Perhaps best known for lost tribes and uncharted land, today PNG is hurtling into the 21st century – a shift that is clearly causing more than a few growing pains. While its past remains an integral part of its present, many of the country’s leaders are hopeful its abundant natural resources will provide the funds necessary for PNG to become a modern and prosperous state. The conflict currently raging in the highlands demonstrates the pitfalls of this process.

For decades, the mining of gold, copper and other minerals has been the mainstay of PNG’s extractive economy. More recently, oil and gas have become some of country’s most important exports. In September, both the American oil giant Exxon Mobil and Oil Search bought 40 percent shares in two separate offshore explorations permits in the Gulf of Papua. Peter Botten, managing director of Oil Search, said the maritime area, almost 150 kilometers (93 miles) off the capital Port Moresby, has “significant gas potential.” The purchase followed a bidding war between Exxon Mobil and Oil Search for shares in InterOil, a Singapore-Papua New Guinea company that offers investors a way into the Elk-Antelope gas field, believed to be one of the largest untapped gas deposits in Asia.

The bidding war, which included France’s Total part-funding Oil Search’s bid, was credited by analysts as a sign of companies’ faith in improving international oil and gas prices and Papua New Guinea’s importance for the industry. The potential profits from oil and gas extraction are enormous, but extracting it poses risks to the environment. “Like other forms of resource [extraction] in Papua New Guinea, oil and gas extraction is promoted as a model of development,” said Natalie Lowrey, Communications Coordinator for the Deep Sea Mining Campaign. “But, as has been seen with large scale mining, logging and palm oil, there is the ongoing concern that it provides very little financial benefit for ordinary people as well as environmental destruction.”



River in the rainforest near Mt. Bosavi. New Guinea’s rainforests are the third-largest in the world. Photo courtesy of Markus Mauthe/Greenpeace.

According to conservation biologist Richard Steiner, the risks could be “very high,” particularly for offshore extraction. “Oil is a very toxic substance, and if or when it is spilled, it can cause long-term, even permanent ecological harm, as with the 1989 Exxon Valdez spill in Alaska,” he told

Mongabay. A number of spills have already occurred in waters of Papua New Guinea. In August 1993, Oil Search, a major player in oil and gas in PNG, caused a spill, although it initially denied such an event took place; it was only the work of local media that forced the company to admit to the spill three months later. Then, in 2012, Oil Search once again announced that a spill had taken place, though described it to the press as only a “minor incident” of a “small number of oil droplets.”

Even if nothing goes wrong, developing PNG’s petroleum industry will inevitably have a huge environmental impact. “Exploration and extraction of oil and gas will bring mass amounts of infrastructure, like pipelines and shipping, potentially resulting in land clearing,” Lowrey says. Take, for example, ExxonMobil’s PNG LNG Project, which began production in 2014. The project sources gas from seven fields across the country, most onshore. Gas is transferred by a 407-kilometer-long (253 miles) subsea pipeline and a 292 kilometer (181 mile) onshore pipeline to two production facilities, where the gas is liquefied before being loaded onto ocean-going tankers that are then shipped across the region. As part of this project, the following had to be built: nine new wells in one onshore field; a new airstrip for the delivery of heavy duty machinery; more than 700 kilometers (435 miles) of pipeline; and the expansion of the docks for transport. And this was only a fraction of the infrastructure needed for the project.

Others are more concerned about the potential social impacts of such projects. “There is comparatively minimal environmental impacts, mainly due to the innovative construction of underground pipelines by Chevron in the early 1990s. Compared to mining, the footprint is small,” Emma Gilberthorpe, a Senior Lecturer at the University of East Anglia’s School of International Development, told Mongabay. “However, the social impacts are enormous, mainly initiated by the influence of cash royalties and conflicts over ownership.”



Women crossing a river on the way to Mt. Bosavi in Southern Highlands Province. Photo courtesy of Markus Mauthe/Greenpeace.

In a 2007, essay titled *Fasu Solidarity: A Case Study of Kin Networks, Land Tenure, and Oil Extraction in Kutubu, Papua New Guinea* Gilberthorpe explored the impacts of the country’s first commercial oil field development, located in the southern highlands. The use of cash royalties and “the imposition of centralized judicial constructs of corporate landholding groups” radically altered the traditional, social interactions between kin groups and communities. “Males are becoming isolated from pre-oil exchange networks, and females are becoming isolated within villages,” she wrote. More recently, the protests in Central Province show the potential for social unrest when expectations about cash royalties go unmet. The extraction the country’s abundant resources, especially oil

and gas, was supposed to transform the country and its economy. But it hasn't, writes Charles Yala, Director of the National Research Institute, a local think tank: "The petro-oil-gas dollars [are] disappearing into thin air, leaving behind an impoverished nation," he wrote in *Business Advantage PNG*.

Despite the wealth the industry has created, Yala says the economic situation remains dire: getting to and from the country remains difficult and costly; accommodation can be more expensive than in most Southeast Asian capitals; internet access is poor; electricity supply is scant; and the government does not do enough to allow smaller businesses to prosper. Even people in government admit that oil and gas revenue won't solve all of the country's problems. In June 2015, Finance Minister James Marape announced that the importance of Liquefied natural gas (LNG) to the economy was a "myth." He added: "We are clouding our vision thinking that LNG is a waterfall of money. It is how we maximize use of all the resources in this country that will unlock our development potential."



A tree kangaroo, one of the many incredibly rare species living in PNG's lowland forests. Pictured here at the Melbourne zoo. Photo courtesy of Tom Jefferson/Greenpeace.

In October, an analysis by Development Policy Center, a think tank ran out of the Australian National University, estimated that while PNG's mineral exports in the first quarter of 2015 were worth \$1.6 billion, government revenue for this sector amounted to just \$8 million, or roughly 0.5 percent of the total value. Some of this, the article noted, was likely due to a lag in between exports being made and taxes on them being paid, as well as changes in how the state receives its share of the sector's profits. Nevertheless, it concluded that "what the numbers illustrate most clearly are the effects of price volatility in the sector, and the subsequent, highly uneven returns to the government." This volatility make it "extremely difficult for governments to manage these flows effectively, and makes strategic development planning difficult," the report noted.

"In this regard, and others, Papua New Guinea certainly exhibits many of the classic markers of the 'curse'," the paper noted – referring to the theory that countries possessing an abundance of natural resources tend to have less democracy, less economic growth and worse overall development than countries without such resources. While not universal, the paradox of the "resource curse" has been found in countries across the world, particularly those without a history of good governance. In an effort to sustainably manage the money derived from oil and gas, the prospect of creating a sovereign wealth fund has been on the table since 2011. It finally came into law in July 2015, was scheduled to come into operation this year – reports now point to a 2017 launch date. Many oil-rich

countries have developed such ways of re-investing oil and gas profits for long-term profit, with Norway leading the way with a fund worth almost \$890 billion, making every Norwegian a millionaire, in theory. (Norway has also helped other countries develop their own funds, including Papua New Guinea's neighbor, Timor-Leste.) Papua New Guinea's fund will be split into three sections, according to an interview with the High Commissioner of Papua New Guinea to Australia, Charles Lepani. The Future Generation Fund is intended to put aside money for the decades to come; the Infrastructure Fund to revitalize what is needed today; and the Budget Stabilization Fund to support the country's growing budget.



A mountain hut in the highlands of Papua New Guinea. Photo courtesy of Markus Mauthe/Greenpeace.

Again, there is a concern that its sovereign wealth fund might itself become another curse. In Timor-Leste, analysts have spoken of the government's overuse of the fund to boost the state budget, which could lead to it being empty within a decade. Experts have warned that politicians in Papua New Guinea must provide accountability and expertise when managing the fund, so money for future generations is not wasted. The biggest task for future governments will be tackle corruption in the face of a sash of new petrodollars. Transparency International's latest index on corruption perception, in 2015, put Papua New Guinea 139th out of 168 countries. Without effectively tackling this endemic practice, the money available for necessary social projects and infrastructure development could slip away from the state's coffers.

Another concern is that politicians look to the oil and gas industry, as the sovereign wealth fund, as a silver-bullet, and fails to plan for a future of less dependency on natural resources. When asked if the oil and gas sector could sustain the economy of Papua New Guinea, Gilberthorpe responded that it couldn't on its own. "And not sustainably. Without a diversified economy Papua New Guinea is putting itself in the firing line of the resource curse," she said. "The country needs to develop beyond natural resource extraction to more sustainable forms of economic development if it is to have a sustained economic growth."

Freeport: Mining Giant's New Local Unit Boss Pushes Papua Expansion Deal

Company seeks to reverse Indonesia's plans to stop the exports of ore

WELLINGTON, New Zealand (Radio New Zealand International, December 20, 2016) – Chappy Hakim, a retired Indonesian air force chief who says he knows next to nothing about mining, now heads the local unit of mining giant Freeport-McMoRan. This comes as Freeport seeks the go ahead

for an \$US18 billion expansion of its Grasberg mine - one of the world's biggest deposits of gold and copper - in Papua. Mr Hakim was appointed last month as the company seeks to reverse Indonesia's plans to stop the exports of ore. *Reuters* reports him as saying his experience leading the air force and later an air safety panel after a string of deadly plane crashes would help him with both human resource management and mine safety issues. Freeport said Mr Hakim's appointment was made in consultation with the government and comes as the company fights to win an extension on its mine beyond 2021. Freeport needs to sign off in late 2017 on the \$18 billion plan to transition Grasberg from open pit to underground mining, and it wants the contract renewed before committing the money.

Firm expands estimates for copper, gold

December 20, 2016 The National Business

RESOURCE estimates for copper and gold have been expanded from 2015 figures for the Yandera project in Madang by Canadian company Era Resources Inc. This follows more than 40 diamond drillings done this year which showed significant increase in measured, indicated and inferred resources, according to Era Resources. Era Resources president Pieter Britz said the drill campaign was a success and would provide a conducive platform for prefeasibility studies to be carried out next year. "The 2016 drill campaign was a remarkable success, achieving in all respect our overall targets of understanding the areas between the 2015 pit shells, and then stepping out beyond the 2015 perimeters of pits to expand the footprint of the resource. The 2016 resource estimate now provides a strong platform for a pre-feasibility study, which is scheduled to commence early in 2017," he said. Highlights of the updated estimate indicate:

- measured and indicated resources total 728 million tonnes grading 0.33 per cent copper, 0.01 per cent molybdenum and 0.10 ppm gold, or 0.39 per cent copper equivalent (full breakdown by category is shown below); and ,
- inferred resources total 230 million tonnes grading 0.29 per cent copper, 0.00 per cent molybdenum and 0.04 ppm gold or 0.32 per cent copper equivalent.

The update on the Yandera project estimates follows a presentation by Era Resources at the recent PNG Mining and Petroleum Investment Conference in Sydney, which the projects prospects were highlighted. The presentation contained a timeline with expected construction of the project to commence in 2019 and to have full scale production by 2025. According to Era Resources Inc website, it is focused on the discovery, exploration and development of base metals globally. The company is listed on the Toronto Stock Exchange Venture Exchange under the stock code ERX. Its flagship project, the 100 per cent owned Yandera copper project, is hosted within a 624-square kilometre tenement package, in Madang.

OTML announces K150m dividend

Post-Courier, December 20, 2016

OK TEDI Mining Limited (OTML) yesterday announced a dividend of K150 million had been declared for payment in December 2016. One third of this dividend or K50 million will be paid to mine villages and CMCA landowners and the Fly River Provincial Government following an agreement on the allocation of the additional equity granted by the State. OTML chairman Sir Moi Avei said: "After the suspension of operations for seven months due to dry weather, Ok Tedi restarted in March 2016 and has performed strongly throughout the year. As a result the company has generated sufficient cash to restore its debt - free position, pay a dividend, and build up cash reserves." Sir Moi acknowledged the support of the Prime Minister Peter O'Neill and his government, the work-

force, communities, customers and suppliers through this challenging period. “Ok Tedi is now a much stronger company, capable of operating profitably in a low commodity price environment,” he said. The chairman said he was proud of the way the Ok Tedi team, the Board, management and workforce had worked together to reset the cost structure and transition to a revised life of mine strategy. “It is through this collective effort that the company has restored profitability and been able to provide a return to our shareholders,” he said.

'Casper octopod under threat from deep sea mining'

By Helen Briggs, BBC News, 19 December 2016



Image copyright NOAA Office of Ocean Exploration and Research Image caption The "Casper" octopod was spotted last year

A deep sea octopod, dubbed "Casper" after the film ghost because of its appearance, could be at risk from mining, scientists say. The animal, possibly a new species, was discovered last spring at depths of more than 4,000 metres (2.5 miles). Studies suggest females nurture their eggs for several years on parts of the seabed that contain valuable metals. Commercial companies are interested in harvesting metals and minerals from the bottom of the ocean. Media caption An octopod, dubbed "Casper" after the film ghost, could be at risk from deep sea mining. There are growing concerns about the future impact of mining on life in the deep sea, much of which has yet to be discovered and categorised.

New marine life found in deep sea vents Ghost-like 'Casper' octopod discovered

The octopus lays its eggs on the dead stalks of sponges, attached to rocky crusts which are rich in metals like manganese. The female then protects the eggs as they grow, perhaps for a number of years. "The brooding observation is important as these sponges only grow in some areas on small, hard nodules or rocky crusts of interest to mining companies because of the metal they contain," said Autun Purser, of the Alfred Wegener Institute's Helmholtz Centre for Polar and Marine Research in Germany. "The removal of these nodules may therefore put the lifecycle of these octopods at risk." The "Casper" octopod was spotted last year by the camera of a submersible vessel remotely operated by NOAA off Necker Island near Hawaii. A type of octopus without fins, it crawls along the seafloor. Jon Copley of the University of Southampton, who is not connected with the new research, said the record for octopus mothers keeping vigil over their eggs is four years, by another deep-sea species in the Pacific. If this species is similar, then it could be particularly vulnerable to disturbance by deep-sea mining, he said. "This discovery shows how we need far greater understanding of fundamental ecology - and far greater knowledge of the natural history of individual

species - in deep-sea environments being targeted for future mining, before its potential impacts can really be assessed," Dr Copley told BBC News.

Metal-rich deposits

The German and US researchers investigated deep sea environments using remotely operated vehicles, and towed camera surveys, between 2011 and 2016. They observed 29 octopods from two distinct species on the bottom of the Pacific Ocean off the Hawaiian Archipelago and in part of the Peru Basin. Image copyright Alfred Wegener Institute Image caption An octopod brooding its eggs on the stalk of a dead deep-sea sponge. Two octopods were seen to be brooding clutches of eggs that were laid on stalks of dead sponges, which require manganese to grow and stay attached to these rocky crusts or nodules. "These nodules look a bit like a potato, and are made up of rings of different shells of metal-rich layers," said Dr Purser. "They are interesting to companies as many of the metals contained are "high-tech" metals, useful in producing mobile phones and other modern computing equipment, and most of the land sources of these metals have already been found and are becoming more expensive to buy." The scientists say the future of octopods and other animals, large and small, must be considered when managing "commercially attractive, yet bio-diverse and poorly understood deep sea ecosystems". The research is published in the journal, [Current Biology](#).

Chan calls for changes to PNG Mining Act before polls

Radio New Zealand, 19 December 2016

The Governor of Papua New Guinea's New Ireland province has come out in support of calls for changes to the Mining Act before next year's elections.



Governor of PNG's New Ireland Province, Sir Julius Chan. Photo: RNZI/ Peter Kinjap

Sir Julius Chan, who is a former PNG prime minister, said he backs statements by Hidden Valley's Nakuwi Landowner's Association that citizens should have more ownership of mineral extraction operations. The association is frustrated at long delays to a revised agreement regarding the Newcrest's Hidden Valley mine in Morobe province that would guarantee landowners and local communities more benefits. In recent years elements of the government have indicated the Mining Act could be modified to give landowners more control of the wealth from mining. However, speaking at this month's PNG Mining and Petroleum Investment Conference in Sydney, the prime minister Peter O'Neill ruled out any changes to the Act before the 2017 elections. The Mining minister Byron Chan echoed this.



The Papua New Guinea Prime Minister Peter O'Neill. Photo: AFP / Peter Parks

But Mr Chan's father, Sir Julius, said PNG people have suffered for too long under a Mining Act that literally steals the wealth from their land. He said that the level of royalties which mining companies pay in PNG compared to overseas "completely screws the landowners and provinces". "Our people are getting almost nothing from the huge amount of wealth coming from their ground," he complained. "It all goes to the company and the National Government, and none of it comes back to the people." Sir Julius criticised the O'Neill government for reneging on various promises made to him in return for his party's support for the formation of the coalition in 2012. This included commitments on renegotiating the Memorandum of Agreement for the Lihir Gold Mine in New Ireland.

"Government has dragged its feet for literally four years, ever since 2012 when the MoA came up for the regular five-year review," he explained. "National Government should be protecting the rights and the interests of the landowners and people, but instead it just delays and acts as the stooge for the Mining companies. This has to stop " The New Ireland governor said his administration fully supported the Nakuwi Landowners in their intent to shut down the Hidden Valley Mine unless government signs a new MoA. Sir Julius said it is time for Mining Provinces and landowners to come together to insist on a fair deal from the great wealth that is coming out of their land. "I think we need to sit down together and come to agreement on how we want the entire mining regime, the entire mining system, to work."

New marine life found in deep sea vents

By Helen Briggs, BBC News, 15 December 2016

Six new animal species have been identified at deep-sea vents beneath the Indian Ocean. The remote area is home to life not seen elsewhere in the world's oceans, yet has been earmarked for future mineral exploration. Hydrothermal vents form at locations where seawater meets magma. They are surrounded by a large number of organisms that are new to science. The latest finds include worms, snails and a crab. UK researchers explored an area of the Southwest Indian Ridge, which bisects the ocean between Africa and Antarctica, in 2011. Scientists at Southampton University revealed they had found many new creatures using a remote-operated underwater robot.

Species spotted at deep-sea vent

They have now analysed samples from the site, known as Longqi, or "Dragon's Breath", and compared them with known species based on the animals' genetic make-up. The study, published in the journal *Scientific Reports*, shows six animals new to science.



Image copyright University of Southampton Image caption Teeming with life: the new species include the light brown crab in the middle of the photo

The six new species

- a "Hoff" crab
- a "giant peltospirid" snail
- a whelk-like snail
- a limpet
- a scaleworm
- a polychaete worm



University of Southampton Image caption A vent chimney known as "Jabberwocky"

Hydrothermal vents were first discovered in 1977. Since then, more than 400 new animal species have been discovered living around them across the world's oceans. "Hydrothermal vents form a

network of marine life in the deep, and so far we've only glimpsed one node of the network in the south-west Indian Ocean," said Dr Jon Copley, who led the research. "Our results show that we need to explore this network much further, if we're going to understand the possible impacts of any future mining at hydrothermal vents in this region." Image copyright University of Southampton
 Image caption A vent chimney known as "Jabberwocky" Mining on the seabed is expected to be a growth area in the future. Contracts for seabed mining exploration and eventual mining in the high seas are granted to individual countries by the International Seabed Authority, an organisation created by the United Nations. Over one million sq km of ocean floor (400,000 sq miles) in the high seas of the Pacific, Atlantic and Indian Oceans has been earmarked for exploration by at least 16 countries. A Chinese research vessel has been surveying the hydrothermal vents in the Southwest Indian Ridge for mineral deposits this year.

PNG to deploy military to stop tribal fighting and protect gas project

By Papua New Guinea correspondent Eric Tlozek, ABC news, 15 December 2016

The Papua New Guinea Government announces it will deploy the military to stop violence near the country's biggest resources project.



Dozens have died in tribal conflict over the gas project in Hela Province in the highlands. (Credit: AAP)

The Papua New Guinea Government has announced it will deploy the military to stop violence near the country's biggest resources project. The PNG Defence Force will be deployed to Hela Province in the highlands where dozens of people have died in tribal conflict recently. Landowners in the province were also threatening to attack Exxon-Mobil's PNG LNG project over ongoing complaints about royalties and equity in the project. PNG's Prime Minister, Peter O'Neill, said the military would work with police to conduct security operations in the province. "These problems have the potential to impact on the upcoming election as well as the operation of important projects in the area," he said. "Police will have full powers to ensure law and order and to deal with people who seek to cause trouble.

"This includes the immediate arrest of people seeking to initiate violent acts or make threats against Government officials or projects in the province." Mr O'Neill said the military call-out would last six months, taking it past PNG's national elections next year. He said the Government would ask Exxon-Mobil and Oil Search — the two main companies involved in the PNG LNG project — for logistical support to help the security operation. Tribal violence is often a problem in PNG's highlands but it has escalated dramatically in Hela over the past year. Last month, two men were shot

dead when the provincial governor's convoy was stopped by armed men. Police responded by burning houses and gardens in an attempt to flush out those responsible.

Hidden Valley Landowner association urge Govt to sign revised Mining Act

Post-Courier, December 15, 2016

THE government has been called upon to review their decisions and sign the revised mining act for implementation. Hidden Valley's Nakuwi Landowners Association president Rex Mauri said this yesterday following the announcement by Prime Minister Peter O'Neill during the mining conference in Sydney, Australia, recently to defer the revised mining act. "We the landowners from Hidden Valley are appealing for Prime Minister Peter O'Neill and Mining Minister Byron Chan to review the decision," he said. He said Mr O'Neill had announced during the mining conference that the revised mining act will be deferred until after the 2017 General Election. "This is a slap in the face for landowners, contributing individuals and entities efforts' in compiling the act. "This revised mining act is vital because once it is signed, then the benefits rollout will surely reach the affected host project communities and all stakeholders in the country.

"However, it is very frustrating and the deferral indicates that the PM is serving the interest of the developer and not the landowners of PNG. "I have been actively involved in the operation of Hidden Valley mine for almost 34 years, yet I don't experience any tangible developments occurring in affected communities of Morobe Mining Joint Venture, and the living standards of the people are still low," Mr Mauri said. He claimed that the gross payment of the mine is divided as two per cent belonging to the landowners which is shared among the national government, provincial government, local level government and landowners, while the developer is enjoying 98 per cent. Mr Mauri said that these are some issues that are highlighted and amended in the new revised mining act so the political leaders in mining provinces must support the call and raise their voice about the decision and ensure the mining act is signed and ready for implementation. "We cannot drag this on as operations are continuing every day and changes are happening to our environment. Let us all voice our concern to ensure we benefit fully."

PNG Provinces Impacted By LNG Project Accept 4.27 Percent Stake

By Jeffrey Elapa

PORT MORESBY, Papua New Guinea (PNG Post-Courier, Dec. 15, 2016) – The five impacted Provincial Governments of the PNG LNG Project have accepted their 4.27 per cent stake in the project offered by the State through the Kumul Petroleum Holding Limited. The three governors also signed the head of governments agreements yesterday to go with the vendor financing option while other options and processes could be pursued later. Southern Highlands Governor William Powi, Hela Governor Francis Potape and Central Governor Kila Haoda met with the landowner for a presentation by an independent consulting team from Sydney engaged by the provincial governments to ascertain the best option for the landowners to take. Gulf Governor Havila Kavov and Western Governor Ati Yabiro were absent, They also engaged the consultant team to see if there were possibilities for them to secure financing backing from commercial banks to finance the equity.

After the presentation by Clinton financing group, the provincial governments and the landowners agreed to go with the vendor financing option of the State as they did not want to miss out on the opportunity to take ownership of their resources through the equity participation. Southern Highlands Governor Powi, who has led the team with Mr Potape, said the landowners and the provincial governments could not lose the rights to ownership when the dateline (December 31) lapses, which was only eight days away for any financing option. He said after the presentation that he was clear

what option to take and the best option now is the vendor financing of the state which is more relaxed with a flexibility to break ties and with a very low interest rate. "If anyone has the best option and comes with the money now then we will all go with that. "The 4.27 per cent is not a direct option and all banks cannot allow us to borrow because we do not have ownership by has equity through Kroton."

German NGOs call for a ban on deep sea mining

Seas at Risk, 15 December 2016

The German Federation for Environment and Nature Conservation (BUND), member of Seas At Risk, called for a ban on deep sea mining together with several other German NGOs (PowerShift, Fair Oceans, Brot für die Welt, MISEREOR, Stiftung Asienhaus, Forum Umwelt und Entwicklung). The ban was called for in the context of the International Conference on deep sea mining hosted by the German Federal Ministry for Economic Affairs and Energy on December 13th, and in which BUND and Seas At Risk participated. Germany has already received exploration licenses for 85,000 km² of seabed in the Central Pacific and the Indian Ocean and during the conference the Ministry clearly expressed the intention to have a leadership role in the development of deep-sea mining.

The German NGOs fear that in the current race for marine resources, harms to the vulnerable deep sea habitats and ecosystems may be neglected. The knowledge of the deep sea ecology is far too scarce to estimate the risks of deep sea mining. The exploitation of unique habitats will lead to serious and irreparable loss. In addition to a ban of all mineral exploitation projects in the deep sea, the NGOs also called for alternative strategies to reduce raw material consumption, by enhancing recycling rates and developing smart and sustainable product design. They also emphasised the importance to respect the human rights of the Pacific civil societies that are currently opposing seabed mining projects. Local communities see the Pacific as their 'fluid continent' and they oppose to their land and sea becoming an experimental field again as in the times of nuclear testing.

Seabed mining in PNG: environmental experiment, false hope of economic returns

Media Release, Deep Sea Mining Campaign, 14 December 2016



Nautilus Minerals pedalled false hope for experimental seabed mining at the PNG Petroleum and Mining Conference in Sydney. NGOs and civil society in PNG raise serious doubt about the commercial and environmental viability of the Solwara 1 seabed mining project. Natalie Lowrey, Deep Sea Mining campaign said, "Despite securing bridge financing with its two biggest shareholders to continue the Solwara 1 project, Nautilus faces significant technological and financial uncertainties. They are yet to demonstrate that seafloor resource development is commercially viable and environmentally sustainable." "The Nautilus Annual Information Form for the Fiscal Year ending 2015 highlights the potential for equipment damage, mechanical failure and operational failure and it warns that the projected yields and costs for Solwara 1 should be viewed with a low level of confidence."

According to the Form's section on risk factors, Nautilus has not completed and does not intend to complete a preliminary economic assessment, pre-feasibility study or feasibility study before embarking on mining at the Solwara 1 Site. The Form also acknowledges that the impact of any seabed mining operation on the environment will only be determined by monitoring after Solwara 1 has been developed. "This does nothing to reassure local communities. The proposed Solwara 1 site is right in the middle of our fishing grounds and ocean currents operating at the Solwara 1 site would bring pollutants to our shores," stated Jonathan Mesulum, from the PNG Alliance of Solwara Warriors. Christina Tony, from the Bismarck Ramu Group in PNG said, "These admissions formally confirm what community members and activists have asserted for some time, that Nautilus and the PNG Government are using the Bismarck Sea as their testing ground and that Solwara 1 is indeed Experimental Sea Bed Mining"

"The business case for Solwara 1 is extremely weak and is a huge risk for the PNG government. It will not generate revenue, employment or business opportunities for the local communities whose lives and livelihoods depend on the ocean. Our former prime minister and Governor of New Ireland province, Sir Julius Chan, cast his doubts about experimental seabed mining as a serious environmental risk for our seas which are the gardens for our people." The Parties to the Nauru Agreement (PNA), who control the world's largest sustainable tuna purse seine fishery, have warned this week that without caution and adherence to the precautionary principle sea bed mining will go down the same track as the tuna fishery- foreign companies over exploiting Pacific Island resources with no tangible benefits delivered to local populations. The National Fisheries Authority in PNG has also expressed its concerns over seabed mining in the country.

New Zealand seafloor needs protection from experimental seabed mining

Victoria University of Wellington, 14 December 2016

Seafloor communities within New Zealand's Exclusive Economic Zone (EEZ) need better protection against deep-sea mining, according to a Victoria University of Wellington researcher working with NIWA scientists to investigate the environmental effects of deep-sea mining. Rachel Boschen, who graduates with a PhD in Marine Biology today, says although there is interest in mining for Seafloor Massive Sulfide (SMS) deposits within the EEZ, little is known about the seafloor communities that are found there and potentially at risk from mining activities. SMS deposits are mineral-rich ore deposits that form on the seabed. Within the New Zealand EEZ, deposits form at submarine volcanos at 1000–2000m depth along the Kermadec Volcanic Arc. Part of Rachel's research involved reviewing 70 hours of video footage covering more than 50 km of seabed across three seamounts on the Kermadec Volcanic Arc. From the footage, she was able to characterise the structure and distribution of seafloor communities.

"Seafloor Massive Sulfide deposits are formed by hot springs on the seafloor, which are known to be important habitat for specially adapted animals. What I didn't expect was that not only did the areas with active hot springs support unique communities, but areas where springs are no longer active also hosted unique communities. These communities have complex distributions, with each of the studied seamounts supporting communities not found on the other seamounts. "The action of the hot springs causes SMS deposits along the Kermadec Volcanic Arc to be rich in copper, zinc, lead, gold and silver, and there has been interest in mining them. If mining occurs, the unique communities found in my study could be at risk. "To mitigate the impacts of any future mining, it's important to designate protected areas that conserve seabed hosting unique or particularly sensitive communities to ensure they are not lost from the region." Animal collections taken during the study also allowed her to determine the connectivity of populations of a deep-sea mussel species found at seafloor areas at risk from mining. Rachel examined the DNA of seven populations of a mussel

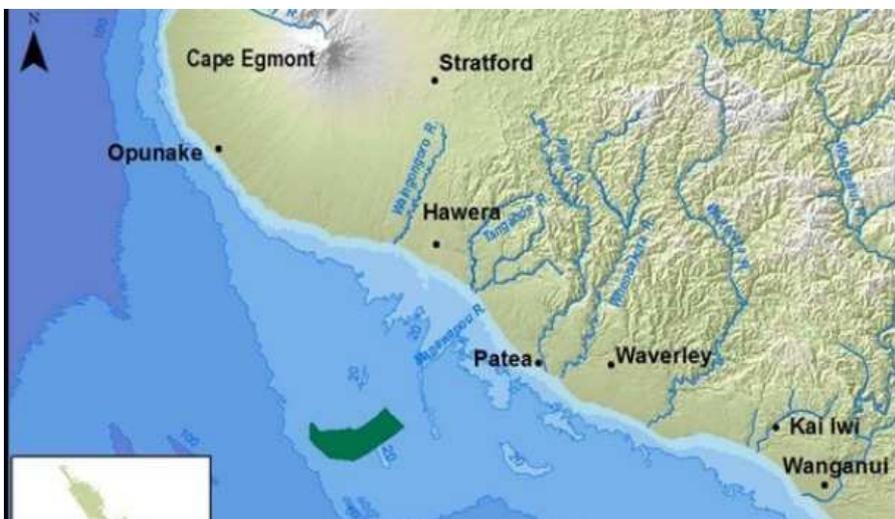
species endemic to active hot springs along the Arc, to assess the populations' genetic connectivity across the species' 830 km range.

“By looking at their DNA I was able to determine how connected different populations are along the Arc. The results suggest that although connectivity is generally high amongst populations, some central populations may play an important role in maintaining connectivity in the region. Another population at the northern extent of the species' range is less connected and may be more at risk from deep-sea mining disturbance. “The results indicate that to preserve the connectivity and health of these deep-sea mussel populations, we need multiple protected areas of seabed, designed as a network.” Rachel adds that a protected network should include SMS sites that are both thermally active and inactive to protect the range of communities and include sites key to population connectivity. She says while the New Zealand Government's proposed 620,000 km² Kermadec Ocean Sanctuary, announced in 2015, was “a big step towards protecting areas potentially at risk from deep-sea mining”, it may not be enough to safeguard unique communities from mining activities.

“There are many SMS deposits south of the proposed sanctuary that are not offered adequate protection, including the seamounts in this study and some other sites on the Arc that are important to regional population connectivity.” Rachel's supervisors Professor of Marine Biology Jonathan Gardner at Victoria, and Dr Ashley Rowden and Dr Malcolm Clark from NIWA agree her research provides valuable information that can safeguard the future of this ecologically important area. Professor Gardner says: “Her research highlights the threats posed by deep sea mining before it begins, giving us a much better idea of how we need to set up areas for both mining and conservation.”

Opposition to South Taranaki seabed mining proposal triples in two years

JEREMY WILKINSON, Taranaki Daily News, December 13, 2016



The 66 square kilometres off the South Taranaki coast where Trans Tasman Resources have applied to mine iron ore.

Opposition against proposed seabed mining in South Taranaki has more than tripled in just two years, a campaign group says. The last time Trans Tasman Resources applied to mine 50 million tonnes of iron-laden sand per year from the seabed off the coast of Patea, in 2013, more than 4,680 people opposed them. Now, after the Environmental Protection Authority's (EPA) submission period ended on Monday, Greenpeace and Kiwis Against Seabed Mining (KASM) say they have collected more than 17,000 submissions against the mining going ahead.



MONIQUE FORD / Fairfax NZ

The application for seabed mining in Taranaki has proved controversial. KASM chairman Phil McCabe said it was likely a record number of submissions and proved opposition had grown exponentially. "Last time Trans Tasman Resources tried – and failed – to gain approval for a similar proposal, the EPA received more than 4,600 submissions against it – which was a record at that time," he said.



Jonathan Cameron

Kasm Chairman Phil McCabe said the 17,000 submissions was likely a record response. "We have blown that record out of the water, proving that opposition to seabed mining has grown exponentially." McCabe said the focus now would be on the preparing for the EPA hearing into the application - which is due to be scheduled sometime in January. "We cannot let this proposal go ahead, as it would create a precedent for other mining proposals, not only on the North Island's West Coast, but also a proposal off Waihi Beach," he said.

Ngati Ruanui's general manager Debbie Ngarewa-Packer slammed the EPA's submission process. Trans Tasman Resources applied to mine the same area in 2013, but was rejected by the EPA on the basis it had not done enough consultation with the community and the environmental effects of the mining were unknown. In the first application, just 11 people submitted in favour of the proposal. This time around the submission period was extended twice, first due to affected iwi Ngati Ruanui objecting to the company's cultural impact assessment process. The second extension came after KASM, Ngati Ruanui and Talley's Fisheries took the EPA to the Environment Court over a decision to allow certain sections of Trans Tasman's application to stay blacked-out. The authority lost

the battle, meaning it had to release the redacted (physically blacked-out) information and extend the submission period by another month.



GRANT MATTHEW/Fairfax NZ

Ngati Ruanui's general manager Debbie Ngarewa-Packer said the fact the submission needed to be extended several times was "indicative of the total incompetence of the whole process". "The total number of submissions against them doesn't matter, what I think is important is that there has been massive engagement," she said. "It validates the fact that kiwis as a community are extremely concerned about this kind of activity." Ngarewa-Packer said they were not challenging the application for "the sake of challenging". "When they came back a second time and kept pushing it became obvious we would need to be more active and more informed," she said. "This time around we've put a lot of man hours into understanding this application and breaking it down into understandable chunks." A spokesperson for the EPA said it would take some time to process the submissions and "therefore cannot at this stage give any indication of submission numbers".

World-first PNG seabed mining project forges ahead; miners express confidence about commodity prices By Sajithra Nithi, ABC News, 9 December 2016

The world's first project to mine the seabed for minerals is expected to begin operations in Papua New Guinea in early 2019. Nautilus Minerals is the Canadian company in charge of the Solwara 1 project, which will see copper and gold deposits mined from the seafloor at a depth of 1,600 metres, 30 kilometres off PNG's New Ireland Province in the Bismarck Sea. A few months ago, Nautilus reported funding issues for Solwara 1. Adam Wright, vice-president of PNG operations for Nautilus, said the global oil and iron ore price had an impact on some shareholders, who have now put in a bridging finance facility for the project. Speaking at a conference about mining in PNG, he said a big incentive for mining the seabed is the higher concentration — or grade — of the metal deposits. "The grades of the Solwara 1 deposits [are] 7.2 per cent copper. If you look at the average grades of copper in terrestrial copper mines, it's now less than 0.7 per cent copper," Mr Wright said.

"Yes, you can still find copper on land, but as grades fall you're going to have to clear more land ... relocate more communities, you're going to have to store more tailings, you have to dispose of more waste ... accessing an ever-decreasing resource with ever-increasing costs." Solwara 1 is being developed in a joint venture with state entity Kumul Minerals Holdings. The plan to mine the seafloor has raised concerns about the possible effects on the environment. In July, PNG's former attorney-general Sir Arnold Amet joined the campaign against Solwara 1, calling it a "Papua New Guinea-pig" experiment. He said the licence was issued even though PNG has no national policy on deep

sea mining nor an appropriate legal framework to regulate such operations. However, Mr Wright from Nautilus said the company submitted an environmental impact study to PNG's Conservation and Environment Protection Authority (CEPA), which was then independently verified.

Mining company says, Sepik's Frieda River Project To Enhance PNG's Prosperity

09/12/2016, Delly Waigeno, EMTV

The Frieda River Project in West Sepik will contribute to enhancing the prosperity of Papua New Guinea. Dr. Fred Hess, Managing Director of PanAust said this when talking about the risks and rewards of this project. Frieda River has the largest known gold and copper deposits in the world with over 2 billion tonnes, and the O'Neill-Dion Government has committed to assisting the project at its various stages of development. Dr. Hess said the Frieda River Project is one that's been known for about 50 years. PanAust and its joint venture partner, Highlands Pacific are aiming to bring the project into development very soon. They have already submitted a special mining lease application. Prime Minister, Peter O'Neill, said the government was committed to the project. The Project is a substantial open cut mining operation, dominated by a large storage facility. Dr. Hess said the project will generate substantial revenue that will be shared around a number of stakeholders including; local communities, provincial government, the national government, the company and its shareholders who will all benefit from this project going forward.

Concern over experimental seabed mining and fisheries in Pacific

Rosalyn Albaniel, Post Courier, December 9, 2016

THE Pacific's two largest fisheries blocs - the Pacific Islands Fisheries Forum Agency and Parties the Nauru Agreement - are treating the issue of experimental seabed mining cautiously. Pacific waters are home to the world's largest fishery currently accounting for around 56 per cent of the global supply of tuna. The dilemma the region faces is that those same waters will also be hosting the world's first ever copper-gold project. Papua New Guinea heavily relies on its extractive industry and the progress of the Solwara 1 project, now under development in its territorial waters, will mean added revenue to its national coffers while also much needed foreign exchange. Canadian miner Nautilus Minerals has already been granted the environment permit and mining lease required for resource development at this site. It has indicated plans to grow its tenement holdings in the exclusive economic zones and territorial waters also in the Solomon Islands, Tonga and other locations in the Western Pacific.

PNA chief executive officer Ludwig Kumoru, who trained and worked as a fisheries scientist, said he considered deep sea safer for tuna than land based mines. This is because the proposed seafloor mining operations would be done at 1600 metres beneath the surface, well away from the 200 metre water level where the tuna live and breed. However, he said the eight-member group recognised that being the first of its kind there were questions and different circumstances in different locations. However, land mines still posed more risk. "Worse is the tailings that come through the rivers from land based mines and into the sea, that to me will affect the fish to head the PNA. "But it depends on the sites, in other places it may be different, there may be a lot of strong under-current which could move the cloud (plumes) up (to the 200m mark) or the way they move the minerals up, then there is going to be problem," Mr Kumoru said.

New Ireland governor casts more doubt on PNG seabed mining

Radio New Zealand, 8 December 2016

The Governor of Papua New Guinea's New Ireland province has cast further doubt on the viability of seabed mining. Sir Julius Chan, who is a former prime minister, says he is in a dilemma over the Solwara 1 mining project planned for the sea in his province. While he is keen on economic developments, Sir Julius said the sea is the "garden" of his people, yet the impacts of seabed exploration are a set of unknowns. Although interested in what new technologies can achieve, he questions the veracity of the environmental impact study by project developer Nautilus. "Maybe they have found some solutions to the environmental protection and I would be far behind if I don't look into the future, if I stop the whole project now then possibly I may miss out, if I allow it to happen it may be disastrous for my people."

The national government has a 15 percent stake in Solwara 1, yet Sir Julius said his provincial government has not taken up an offer to buy in to the project at this stage. He said the national government has not properly consulted the province about such developments and just bulldozes them through. This is why, according to Sir Julius, his provincial assembly in September unilaterally declared New Ireland to be an autonomous province of PNG. The government has yet to formally respond to this. However, Sir Julius believes PNG needs to take a serious look at modifying the current Westminster-based, centralised system. "I think we need some form of restructuring and even to the extent of having a constitutional sort of reform to decentralise more powers, and we should form something like federalism in Papua New Guinea."

Western has much potential: Minister

December 8, 2016 The National Business

THE Government recognises that Western is a province with so much potential in terms of developing the gas sector, according to Petroleum and Energy minister Nixon Duban. He said the development of the Stanley and P'nyang areas were part of that. "We cannot talk about the subject of the future growth opportunities in the hydrocarbon sector in PNG without talking about the foreland area which mainly covers Western," he said. "There is already very strong evidence of the existence of oil and gas in the foreland area in terms of wide-spread oil and gas seeps and small to medium size discoveries. "These include marginal gas fields namely Stanley, Ketu, Elavala, Tingu, Douglas/Pukpuk and P'nyang. "I want existing players to appreciate the host country's development aspirations. I say this because the Government wants to see a gas hub promoted and developed in Western. "The Government firmly believes that a new LNG project must be built in Western through a gas aggregation concept where all the small and medium size gas fields are tied and their gas brought to a central location for processing. "I must say here that P'nyang gas field could play a key role and become a linchpin in developing a gas hub in the foreland. I am happy to note that ExxonMobil has agreed to a separate gas agreement for P'nyang gas project. "This essentially means that PNG have new fiscal terms. ExxonMobil also agreed to provide additional information on gas reserves re-certification within an 18-month period."

Lenders flag policy, infrastructure challenges to PNG mines

By Sonali Paul, Reuters, December 7, 2016

- * Need for ports, power, roads raises costs
- * Chinese banks boost miners' access to money
- * Miners fear security risks, lenders undaunted

SYDNEY, Dec 8 Planned changes to Papua New Guinea's mining laws are creating uncertainty ahead of an upcoming election, despite strong interest in proposed multibillion dollar mining and energy projects in the Pacific nation, lenders and advisers say. The quality of the copper, gold and gas resources in the country mean there is appetite to lend to projects including Total SA's Papua liquefied natural gas project, Guangdong Rising Assets Management's (GRAM) Frieda River and Newcrest Mining and Harmony Gold's Wafi Golpu copper and gold mines. However Australia and New Zealand Banking Group and Credit Suisse bankers said uncertainty over elections in mid-2017 and proposed government mining and energy policies may affect the size and pricing of loans. Planned changes include shortening mine leases to 25 years from 40 years, giving the state the right to acquire a project for half its sunk cost after the first phase, an increase in royalties to 3 percent and a doubling of the production levy to 0.5 percent.

PNG Prime Minister Peter O'Neill told a conference in Sydney he would not go ahead with any changes to the mining law ahead of national elections in June 2017, and would await a new mandate in parliament. But the uncertainty is putting pressure on the nation's sovereign rating, which would affect lending terms. "When we assess the risk and when we assign risk ratings to projects, to the extent that the sovereign rating is under pressure or downgraded, ultimately that translates to a higher cost of funds to the borrower," said ANZ's head of mining and resources infrastructure project and export finance Wai Mun Lum. The PNG Chamber of Mines and Petroleum has warned that the proposed mining law changes could make the Frieda River and Wafi Golpu projects unviable.

INFRASTRUCTURE CHALLENGES

The main attraction of Papua New Guinea is the sheer size of the deposits, which are tucked away in remote, mountainous regions with limited infrastructure. "I talk to investment banks, and they're all keen to remain on top of what's happening in PNG. They see the opportunities, and they'll all be there," said Anthony Latimer, a partner at law firm Norton Rose Fulbright on the conference sidelines. But in a country where the only airport with runway lights is in the capital, Port Moresby, lack of infrastructure poses a big challenge. For a company like ExxonMobil building the \$19 billion PNG LNG project, a mammoth four-year task which it likened to constructing on the moon, that was doable.

ANZ's Lum said for smaller companies like GRAM's PanAust looking to build the Frieda River mine, it would be a bigger challenge to fund port and power facilities and an air strip. However where western bankers fear to tread, China's big banks are pouring in, bankers and advisers said. "The recent joint venture between Zijin and Barrick for Porgera (gold mine) is going to be very good for PNG," said Graham Smith, associate director of mining M&A at KPMG. "We're seeing the Chinese banks have a very different risk appetite than some of the western banks for jurisdictions such as PNG, as well as lower debt costs generally."

Frieda River: Stars may align for giant Papua New Guinea copper mine

By James Regan, Sydney, Reuters, December 7, 2016

After nearly 50 years on the drawing board, the latest backers of Papua New Guinea's \$3.6 billion Frieda River copper project say the time may finally be right for the giant mine - even if some hurdles remain. Regarded as one of world's largest untapped copper-gold resources, the deposit has sat dormant as successive owners, including some of the world's biggest mining houses, proved unwilling or unable to spend the billions of dollars needed to construct a mine in remote jungle far from the country's coast. Current owner PanAust Ltd, a former listed Australian miner now a unit of China's Guangdong Rising Assets Management (GRAM) [GDRAM.UL], has submitted an application for a special mining license to the PNG government for an initial \$3.6 billion project. PanAust managing Director Fred Hess points to the success of ExxonMobil's \$19 billion liquefied natural

gas plant, which has been running for two years in a country known for its difficult terrain, lack of infrastructure and sometimes fractious landowners.

"It gives the backers of Frieda River the confidence that we can get all of this together and finally make it a reality," Hess told Reuters at a mining conference on investment in the Pacific country. Bankers, too, are penciling in Frieda River as one of a number of projects likely to be needing financing. "The first stage of Frieda River is \$3.6 billion. The second phase is another \$2.3 billion on top of it," said Wai Mun Lum, ANZ's head of mining and resources infrastructure, project and export finance. "We do really feel quite excited about opportunities in PNG that will be coming up in the project financing space." Analysts say factors in the project's favor include a forecast world shortage of copper in coming years, China's desire to secure supplies and the sheer scale of the project. "Now more than any time before, Frieda River could see the light of day," said Gavin Wendt, analyst for MineLife in Sydney, who ranks the deposit among the next generation of mega-projects.

SPEED BUMPS AHEAD

Papua New Guinea once supplied millions of tonnes of copper ore to smelters in Asia and Europe in the 1980s and 1990s. Rio Tinto was run off the restive Bougainville Island in 1990 by residents who wanted to reintroduce an agrarian society. A decade later BHP Billiton relinquished ownership in the Ok Tedi mine to a government trust following claims by landowners over toxic mine waste in local waterways. PNG Prime Minister Peter O'Neill, facing an election in mid-2017, has made foreign investment in new resource projects a priority for his administration as he seeks to boost growth. "Frieda River is a very important project for my country," O'Neill told Reuters at the conference. But hardheaded financing decisions are still to be made.

PanAust says it is unlikely to be issued a special mining license needed to proceed to the initial phase of development, before next year's election. "Our timing hasn't been all that good," said Hess. "Once the election is over and there is a mandate from the government, things will begin to move smoothly," he said, but added the caveat that there was "quite a way to go" before an investment decision was made. Bankers also cautioned that proposed changes to mining laws are creating uncertainty, while the project will need deep pockets to build port and power facilities and an air strip, with the likely backers unlikely to have the funding capacity of an ExxonMobil. Even with a quick go-ahead, Highlands Pacific, which has a 20 percent stake in the project, says the current timeline would include two years for approvals and six years for construction, meaning first production no earlier than 2024/25.

Mineral exploration dips

December 6, 2016, The National Business

THERE has been a drastic decline in mineral exploration, especially in the grassroots exploration sector, according to the PNG Chamber of Mines and Petroleum. Chamber president Gereia Aopi said exploration generally took a very long time, and when exploration activities were constrained or reduced, "it sets off a string of events, often not felt in the near term, but can dangerously threaten the sustainability of the mining sector". "A decline in exploration impacts many rural Papua New Guineans, through the loss of direct employment, loss of business for small businesses owners and suppliers that provide goods and services to support these exploration projects," he said at the annual PNG Chamber of Mines and Petroleum investment conference in Sydney, Australia yesterday. The theme of the conference is "delivering on growth opportunities".

The number of delegates is just over 1000 from 16 countries. Aopi said in Oil Search's estimate, only 40 per cent of Papua New Guinea's full gas and oil potential had been discovered to date. About 15 per cent of that is being, or has been produced, 25 per cent of it is discovered but not yet

commercialized. And the other 60 per cent is to still be found. “So where do they look? They will never know where to find it unless they are able to acquire the required data: whether it is through field mapping and sampling, gravity, magnetic or seismic data acquisition, or the drilling of stratigraphic or exploration wells,” Aopi said. “All this requires investment. Lots of investment. “It is all risk capital with no certainty of being acquired in the right place, or of being able to provide the required certainty to support the drilling of a well. “Without exploration drilling there is one thing for certain – we will not find any new accumulations.”

Prime Minister O’Neill assures resources sector of ongoing consultation

Post-Courier, December 06, 2016

PRIME Minister Peter O’Neill, has reassured the mining sector that the Government is not considering change introducing a new Mining Act in this term of Parliament. Speaking at the 14th Mining and Petroleum Conference in Sydney this morning, the Prime Minister said any changes to the legislation in support of the resources sector must be introduced carefully and with full consultation with all stakeholders. “Our aim is to achieve a fair deal for our people, both landowners directly impacted, and also the country as a whole, and this has been the driving force behind the proposed changes. “I know that many have worked tirelessly to develop the draft Act, both from Government and from industry. “I thank you for engaging with each other so honestly and openly. “I want to state categorically that there will be no changes to the Mining Act prior to the 2017 National Election. “It is only right that the new Parliament be granted the mandate to carry forward any changes to the existing Mining legislation.

“Again, I stress that industry will be fully consulted. “Any change to the Act will ensure there are equal benefits for landowners and Provincial Governments.” The Prime Minister said the Government’s recent decision to give 33% of direct shares in the Ok Tedi mine to landowners and the provincial government, and the 17.4% of BCL shares to landowners, is a clear indicator of our desire to share benefits through this policy. Speaking at the conference, PM O’Neill, also made the point that though there has a downfall in the commodity prices, the economic fundamental is still very strong and it is a good time to invest in Papua New Guinea. “2016 has certainly been a challenging year and there is no doubt that 2017 will similar for the global economy,” the Prime Minister said. But, I am confident we have established the foundation, substance and and capacity to continue to weather this storm. “We have navigated a safe path through these troubled times for a number of years now, and we will continue to move forward with determination. “Now is a great time to be a part of the success of Papua New Guinea, and I welcome your ongoing commitment.”

Polye says Opposition against coal mine

Post-Courier, December 06, 2016

BY JEFFREY ELAPA

PNG as signatory to recent United Nations climate change declaration should not deviate from the international obligation to establish a coal mine in the country, Opposition leader Don Polye says. Mr Polye said this in response to the media reports that an Australian company is trying to mine coal in the Gulf Province and also establish three separate coal power plants in the country. He said the Opposition was opposed to a coal industry, especially when PNG was a signatory to the Paris COP21 summit and other protocols. “PNG needs to stand up as a leader to international commitments like the Paris COP21 climate change agreements that have been rectified by the Parliament,” he said. He said PNG has experienced the effects of climate change when it became the first country in the world to see climate change refugees as a result of the rise in the sea level covering islands and destroying food crops like the Carterets group of islands. He also added there is no real value

for the industry when the people were not enjoying the benefits of mines and petroleum industries in the country.

Coal Mineral Explorer says, Coal has bright future in PNG

Leanne Jorari, EMTV News, 5 December 2016

There is ongoing debate about Coal mining in PNG, its use as a source of energy, and the effects the fossil fuel's use on the environment. Studies have revealed that there is enough high quality coal in the Gulf Province, to run a 50-megawatt power station for 30 years, but the question begs: at what cost is coal usage? There is an obvious absence of a local coal mining industry in the country however this may soon change. Mineral explorer, Mayur Resources, believes coal has a bright future in the country and could help to alleviate power shortages if the resource is tapped into and developed. However, there have been polarising debates about the development of this particular fossil fuel, especially concerning environmental implications. Industry expert, Peter McCabe, weighed in on the topic; stating that if it is mined well and in an environmentally friendly way, an area can be mined and later, the land can be restored. However the burning of coal has been found to emit harmful emissions such as carbon dioxide and sulfur [*sic*] dioxide and strong regulation is vital. The move may also contravene PNG's pact as a signee to international Climate Change mitigation agreements such as the Kyoto Protocol and the Paris Agreement.

Gulf in dire need of police manpower

Post-Courier, December 05, 2016

By KEVIN TEME – Post Courier Live

THE Liquefied National Gas (LNG) project areas in Gulf Province needs urgent police manpower to be on the ground to mend the increasing law and order problem in the respective districts within Gulf. Gulf Provincial Police Commander Silas Wayagure said this during the official presentation of a police vehicle donated by Mineral Resource Development Company (MRDC) to Kikori police to mend its law and order problems recently in Kikori. Wayagure revealed that there isn't any support coming from the provincial government and lack of police officers on ground has seen the rise in law and order problems. Kikori police station commander Sergeant Ananai in support of his PPC said the lack of man power on the ground has seen a lot of criminal activities and smuggling of high powered guns and drug trafficking happening right in front of their eyes but they couldn't do much as they do not have the man power as well as equipment like guns and vehicles to carryout their task effectively. "I would like to sincerely would like to thank you MRDC particularly Imbi Tagune and Augustine Mano for listening to our worries to support us with the vehicle which you had delivered," said Sergeant Omai.

Sergeant Omai through his hard work and effort has written a personal letter to MRDC Augustine Mano for a vehicle and Mano with his kind heart and vision bought the new vehicle, a Toyota ten seater landcruzier and presented it to the Kikori police station headquarter. "I am truly humbled and words cannot express how deeply my officers are to MRDC particularly Imbi Tagune and Mano for their support," sergeant Omai said. Sergeant Omai also revealed that the station were down in numbers of registered police officers but Omai was thankful also to the community in East and West Kikori for providing 16 and 17 adults in both man and women to help with community policing. Meanwhile the PPC Wayagure said such support from MRDC should come from the provincial and the national government however they have not done that. "We don't want people to see us as officers serving the interest of the company rather than the people as the government has not supported us. And such is what people will think and we don't want it that way," Wayagure said.

Wayagure said it was solely the government's responsibility but was grateful that MRDC responded well in assisting the logistical needs of the Kikori police.

Analyse des volkswirtschaftlichen Nutzens der Entwicklung eines kommerziellen Tiefseebergbaus in den Gebieten, in denen Deutschland Explorationslizenzen der Internationalen Meeresbodenbehörde besitzt, sowie Auflistung und Bewertung von Umsetzungsoptionen mit Schwerpunkt Durchführung eines Pilot-Mining-Tests Studie im Auftrag des Bundesministeriums für Wirtschaft und Energie

Studie im Auftrag des Bundesministeriums für Wirtschaft und Energie, Hamburg, 1. Dez. 2016.

Das Interesse an der Entwicklung des Tiefseebergbaus hat in den letzten Jahren international erheblich zugenommen. Deutschland hält seit 2006 über die Bundesanstalt für Geowissenschaften und Rohstoffe (BGR) bei der Internationalen Meeresbodenbehörde (IMB) eine Lizenz zur Exploration von Manganknollen im Pazifik. Eine weitere Lizenz zur Exploration von polymetallischen Sulfiden im Indischen Ozean wurde im Mai 2015 unterzeichnet. Im deutschen Manganknollen-Lizenzgebiet hat die BGR bereits umfangreiche Erkundungsarbeiten durchgeführt. In der Studie wird unter volks- und betriebswirtschaftlichen Aspekten beleuchtet, ob und inwiefern ein fortgesetztes deutsches Engagement im Tiefseebergbau sinnvoll und gerechtfertigt ist und welche weiteren Schritte anstehen könnten.

Link: <http://www.bmwi.de/BMWi/Redaktion/PDF/Publikationen/Studien/analyse-des-volkswirtschaftlichen-nutzens-der-entwicklung-eines-kommerziellen-tiefseebergbaus,property=pdf,bereich=bmwi2012,sprache=de,rwb=true.pdf>

LNG revenue by 2019

December 1, 2016, The National Business

By GEDION TIMOTHY

ECONOMIST Paul Barker says the Government is expected to receive revenue from the PNG LNG project by at least 2019 if the oil prices, which have somewhat improved, do not fall again. He said the Government had been banking on the proceeds from the PNG LNG project through its 19 per cent stake and through taxes. But thing went bad when the international market experienced a drastic decline in oil price “which shadows LNG price movements – due to an increase in supply”. Consequently the country had been hard-hit by this global market trend with the oil price going far below US\$30 (K93.30) per barrel at US\$26 (K80.86) at some point earlier this year. This contributed to a depleting foreign exchange and government income – and subsequent increase in borrowing.

“Obviously, if the LNG prices had been better over the past two years, the debt would have come down soon and the government could have seen some tax revenue and dividends kick in earlier,” Barker told The National yesterday. Barker said the PNG LNG project was also operating under an approved accelerated depreciation arrangement. “With some 250 shipments of LNG to Japan and other destinations so far, and the first sold (ahead of schedule) at good prices on the spot market before the 2014 oil/gas price drop kicked in. “The debt level will have reduced, although to the level envisaged at this stage of the project’s life, when 2017 was the year revenue had been expected to start clicking in significantly,” he said.

Simberi mine improving: Chairman

December 1, 2016 The National Business

By GEDION TIMOTHY

ST Barbara's Simberi gold mine in New Ireland has seen continued improvement this year, justifying the company's decision to preserve with what was an under-performing asset in 2014, says chairman Tim Netscher. Netscher told the company's annual general meeting in Melbourne, Australia that Simberi "is now demonstrably confirmed as a reliable earner of cash, exceeding its target production rate of 100,000 ounces per annum for six consecutive quarters". "With the sensible use of hedging, we have ensured that Simberi will stay cash-positive regardless of gold price conditions for the remainder of this financial year," Netscher said. "During the year, we determined that we should conduct a strategic review of our PNG assets, considering the commercial opportunities available from divestment or joint venture or retaining both the operating and extensive exploration assets of Simberi. "This review has been completed and we announced the results earlier this month. "The results are:

- That we will retain Simberi as an operating asset, and all gold oxide and sulphide exploration opportunities in the Tabar Island group;
- That we will joint-venture with Newcrest the exploration of copper-gold porphyry prospects on Tatau and Tabar Islands;
- That we will not, based on the existing reserves, resources and feasibility study, invest in sulphide mining and processing on Simberi at this time but will continue with studies of opportunities to improve the economics of this project.

Simberi is the northern most island in the Tabar group of islands in New Ireland.

MP's dismissal upheld by Supreme court

Post-Courier, December 01, 2016

BY DAISY PAKAWA

North Fly Member, Boka Kondra's dismissal from office was upheld by the Supreme Court yesterday. Mr Kondra was initially dismissed from office in May 2015 after a Leadership Tribunal found him guilty of six counts of misconduct in office as a leader. Between 2008 and 2010, he unlawfully used K238,442.62 in public funds to pay for office rentals in Kiunga, family accommodation in Port Moresby and to settle the outstanding payments of a hire bus he used during the 2007 election. He appealed to the Supreme Court and in June an interim stay of that dismissal was issued. Yesterday, a three-man Supreme Court consisting of Nicholas Kiriwom, Don Sawong and Frazer Pitpit dismissed all three grounds of appeal and discharged the stay order. Mr Kondra's first ground was that he did not intentionally misapply the money because it was the district administrator who authorised, requisitioned, drew and signed the cheques. Justice Sawong said the law authorises the district administrator and not the MP to perform such duties. However, there was overwhelming evidence that Mr Kondra intended to misuse the funds.

"This started with him chairing the Joint District Planning and Budget Priorities Committee meeting of October 24, 2007 where he requested and that committee approved K400,000 specifically for his "Administration Costs"." According to Justice Sawong, Mr Kondra was receiving his housing, electoral office and vehicle allowances with his fortnightly salary but did not use those. Instead he relied on District Services Improvement Program and District Support Grants to pay his bills. The second ground was that three of the allegations were a duplication of the other three. The court reasoned that although based on the same facts, three of the charges from the Organic Law on the Duties and Responsibilities of Leadership and the other three were from the Constitution. "While

they are based on the same facts, they are framed on a different provision of the law. They take a different character and nature of misconduct." The third ground, that dismissal was too harsh a punishment was also dismissed.

ExxonMobil denies claim about hiring PNG police

Radio New Zealand, 30 November 2016

The multi-national oil and gas company running Papua New Guinea's LNG project denies a suggestion that it hires police to guard its operations. This suggestion resurfaced this week with comments from Hela province where the project's main gas fields are located, following a deadly ambush on an MP's convoy. The ambush in Komo last week was related to a tribal conflict and not the LNG project, according to police. However a suggestion by a local field worker that an alleged reprisal was carried out by police who are hired by the project to provide security for its operations has been firmly denied by ExxonMobil PNG.



LNG Project facility, Central Province, Papua New Guinea. Photo: RNZI / Johnny Blades

Exxon says it plays no role in the conduct of police operations, and nor does it "hire" police or employ "LNG security police". Several years ago, Exxon and its fellow operators of the LNG project signed a Memorandum of Understanding with the Royal Papua New Guinea Constabulary which established interaction in relation to security for the project. According to the LNG Project website, "the MOU plays an important role in establishing clear expectations as well as providing a solid foundation for the delivery of effective policing at our worksites". The project operators can "offer support such as transport, fuel, lodging and stipends for the police away from their normal work locations". Meanwhile, Exxon says it is continuing to monitor the situation after the ambush in Komo in which two people died. "The safety of our staff and the community is our first priority," said an Exxon spokesperson, adding that the events of last week had no material impact on PNG LNG operations.

Company plans first LNG cargo in 2023

November 30, 2016 The National Business

TOTAL's tentative project schedule indicates that it will have the first LNG cargo in 2023. According to information provided during a roadshow hosted by Total in Port Moresby, construction and commissioning had been proposed to be between 2019 and 2022. Managing director Philippe

Blanchard said the decision to have the plant at Caution Bay in Port Moresby was based on different aspects including the environment. “When we select the location, it is because we believe it’s in the best location (and) technically fiscal,” he said. “But at the same time, the location is not going to significantly impact the way people are living. “That will be true for PRL 15, that will be true for the pipeline that we will be selecting and we hope that will be commissioned soon. “Therefore, the rationale is to put an LNG plant in Caution Bay close to the plant. “A lot of studies are being performed. “We don’t have within Total all the competencies.”

State urged to hold off project agreement on Frieda

November 30, 2016 The National Business

A LAWYER and a former MP have urged the Government to hold off the project agreement on the Frieda copper and gold project until after the general election next year. Former Maprik MP in East Sepik Sir Pita Lus and lawyer Alois Jerewai said it should be left to the leaders elected in 2017. “The mandate of the Government and the East and the West Sepik provincial governments have only less than one year to expire. “Therefore the decision in relation to the terms and conditions of the Frieda mine project must be left to the leaders after the 2017 general elections,” Jerewai said. “It concerns us that the Government under the stewardship of Prime Minister Peter O’Neill is rushing to have the Frieda mine brought into operation to sustain the seriously falling economy of Papua New Guinea at any cost.” He said the biggest cost would be the ecological impact on the Sepik River basin and the tributaries which support and sustain almost half a million of people. “In the event that the mine is rushed into operation without proper scrutiny by our current leaders, the Sepik people will be the ones who will suffer the most,” Jerewai said. Sir Pita called on the Government, the Mineral Resource Authority and the Conservation and Environment Protection Authority to provide the proposed or the actual mine waste management and disposal plan to the provincial governments for assessment by their own scientists and engineers.

The Sinking Titanic: International Seabed Authority and Mining the Common Heritage of Humankind

NGOs and civil society from Papua New Guinea and around the world challenge the development of regulations[1] for deep sea mining by the International Seabed Authority (ISA). Their call for a ban on this frontier industry highlights the need for debate on progressing deep sea mining when alternatives are available. Media Release, Deep Sea Mining Campaign, 29 November 2016

Natalie Lowrey, Deep Sea Mining campaign stated, “The development of regulations for deep sea mining is akin to loading more passengers onto a sinking Titanic. Report after report[2] demonstrate that the world’s oceans are already on the brink of peril. Recent research from the MIDAS consortium indicates a concrete risk that deep sea mining would lead to serious irreversible harm. The ISA is paving the way for yet another assault upon our oceans – an unprecedented and unnecessary assault.” The Deep Sea Mining campaign made a joint submission to the ISA on the draft framework for the regulation of deep sea mining in May 2015. The submission highlighted that decisions on deep sea mining should be underpinned by implementation of the Precautionary Principle[3], achieving Free Prior and Informed Consent (FPIC)[4], and gaining broad civil society support. “Our current submission reflects our disappointment that these critical elements have been ignored in the draft regulations now produced by the ISA. Without them there should be a complete ban on deep sea mining”, continued Ms Lowrey.

The call for a ban on deep sea mining reflects the views of communities in Papua New Guinea and across the Pacific. Opposition to deep sea mining throughout the Pacific is strong and growing[5].

Christina Tony, from the Bismarck Ramu Group in PNG said, “The oceans are part of our Common Heritage. The ISA’s prime mandate is to protect the deep sea (Article 145, UNCLOS). Where is the discussion on needs-based mining vs profit-based mining?” “In Papua New Guinea and across the Pacific we do not see experimental seabed mining as a need for our communities nor a benefit for humankind as a whole. In PNG, and across the world, we already have plenty of land based mines and they have plenty of problems.”

“Enough is enough!” stated Jonathan Mesulam from the Alliance of Solwara Warriors. “People from the Pacific are custodians of the world’s largest oceans and it is these oceans that connect everyone in the Pacific. The oceans are as important as land as sources of food and livelihoods, they are of strong cultural and spiritual importance. Experimental seabed mining threatens this.” “There are alternatives to extracting minerals resources from our oceans, these include the improvement of product design and the reuse and recycling of materials through processes as urban mining”, said Ms Lowrey. “There is yet to be a rigorous and thorough examination of the potential impacts of deep sea mining on the environment and human health. Deep sea mining should therefore not proceed.”

NOTES

[1] Comment by ISA members and stakeholders closed to the initial working draft regulations and standard contract terms on exploitation for mineral resources on Friday 25 November 2016. The purpose of the comments is so the Commission can get the “views and opinions on the content and structure (as opposed to any fine-tuning of the drafting language) of the working draft from the Authority’s stakeholder base. These views will be presented to the newly elected Commission in February 2017 together with a revised working draft. It is intended that the next Commission will formulate a clear methodology with regards to the elaboration of the Mining Code, timelines and stakeholder contribution in the regulatory content and drafting process in connection with regulatory development.”

<https://www.isa.org.jm/news/deadline-comments-working-draft-exploitation-regulations-extended>

[2] Reports include: World Wildlife Fund (WWF) [Reviving the Ocean Economy](#) (2015) and [The Living Planet](#) (2016); International Union for Conservation of Nature (IUCN) [State of the Ocean](#) (2013) and [Explaining Ocean Warming](#) (2016); and the [United Nation’s World Ocean Assessment](#) 2016 which is a global inventory of the state of the marine environment and problems threatening to degrade the oceans.

[3] The United Nations World Charter For nature (1982) states that the precautionary principle requires that “activities which are likely to pose a significant risk to nature shall be preceded by an exhaustive examination; their proponents shall demonstrate that expected benefits outweigh potential damage to nature; and where potential adverse effects are not fully understood, the activities should not proceed.”

[4] [Free Prior and Informed Consent \(FPIC\)](#) currently exists in many international law instruments. It is most clearly articulate in UN Declaration of the Rights of Indigenous Peoples (UNDRIP, 2007). The Deep Sea Mining campaign calls for FPIC to recognised and extended to the Common Heritage and Benefit of Mankind including our international oceans.

[5] [Lutherans Walk 9 days Across Highlands Region Campaigning Against Deep Sea Mining in Papua New Guinea](#), EMTV and VIDEO: [Lutherans Campaign Against Deep Sea Mining in PNG](#), EMTV online

Download the Deep Sea Mining campaign submission to the ISA:

www.deepseaminingoutofourdepth.org/wp-content/uploads/Deep-Sea-Mining-Campaign-submission-to-the-ISA-Nov-2016.pdf

Hidden Valley: Landowners' claim royalties misused

BY SAMPSON BONAI, Post-Courier, November 29, 2016

NO proper evidence of the K110 million royalties and other financial benefits from Hidden Valley gold mine has been paid into Bulolo district treasury, says the president of Nakuwi Landowner Association Rex Mauri. "There has been no evidence of the royalty payments for Wau/Bulolo Urban LLG and I'm very disappointed," Mr Mauri said. A total of K110 million had been paid out as royalties to the six local level government councils in Bulolo district and there is no physical evidence of projects and services being delivered in these two towns. He also claimed that there have been a lot of law and order problems in the district because of a lack of Government services being delivered to the people. Mr Mauri blamed the authority saying that they haven't done anything to address the law and order problems or engage the youths in any income generating activities to sustain their lives.

He said the landowners have done their part by giving out royalty monies to the six local level government councils and they expect to see important projects or basic services being delivered to the people. Hidden Valley gold mine had also offered jobs to the unemployed youths of the district and the royalty payments had complimented the financial commitments they have made during the negotiations of the Hidden Valley gold mine in 2000. He said if no proper accountability had been made to control the spending of the royalties from Hidden Valley gold mine then an independent investigation should be conducted to ascertain the disbursement of the funds. Meanwhile the review of the revised Hidden Valley gold mine MoA has been completed and awaits endorsement from the government to implement it.

Undersea mining not beneficial, says Sir Julius Chan

November 28, 2016 The National

NEW Ireland Governor Sir Julius Chan has spoken out against undersea mining in his province by Nautilus Minerals. He said New Ireland had also not benefited fully from the Lihir mine. Sir Julius said last Friday that he had a lot of reservations given the possible environmental impact of undersea mining in his province. "When you drill down, one-mile deep, I don't know," he said. "The sea, in my province, is the garden of my people. "That's why we don't have too much food security problems. "I have great reservations and I want to tell you that I'm not a friend of Nautilus. They make all kinds of promises. "They even promised me they would build bridges four years ago but they did not even design a bridge for me to have a look at. "I've trod very cautiously on this one." Sir Julius said the Lihir Island had also not benefitted fully from the mine. "After 20 years, Lihir has not even got a proper ring road," he said. "The water is polluted, sometimes the fish die. "They say all the nice and promising things in their negotiations, but when they start to operate, they put up barricades."

A New Threat to Oceans: Deep-Sea Mining for Precious Metals

Posted By Sarah Fahmy, Nautilus, New York, Nov 27, 2016

Around 500 miles southeast of the bright turquoise waters at Honolulu Harbor, and two and a half miles down to the dark ocean floor, a massive carpet of potato-sized rocks stretches thousands of

miles on the seabed. These rocks, called polymetallic, or manganese, nodules, are made up of manganese, nickel, copper, and cobalt. The nodules' growth is one of the slowest geological processes in the world—it takes millions of years for one to grow a couple of millimeters: Tiny particles precipitate from the surface of the ocean to the seafloor and conglomerate around a core, like a rock or a shark tooth, and create a nodule. John Mero, a professor of mineral technology at the University of California, Berkeley, was the first to eye them as a potentially revolutionary mineral resource. “Development of the means to mine manganese nodules could serve to remove one of the historic causes of war between nations, supplies of raw materials for expanding populations,” he wrote in his 1965 book, *The Mineral Resources of the Sea*. “Of course it might produce the opposite effect also, that of fomenting inane squabbles over who owns which areas of the ocean floor and who is to collect the protection money from the mining companies.”



Polymetallic nodule. Photograph by Parent Géry/Wikicommons

Whether mining these nodules will help end cycles of war and peace still remains to be seen, but Mero was right about one thing: They are now the precious targets, worth millions of dollars, of an emerging deep-sea mining industry, and that's making many researchers like Craig Smith, a professor of oceanography at the University of Hawaii at Mānoa, cautious. As the head of the Smith Lab, he focuses on the seafloor ecology of various habitats, including the abyssal plains, which cover 50 percent of Earth's surface. “We assume that it is likely that more species occur in the deep sea than anywhere else on Earth,” the authors of one paper wrote. “To pick up nodules, a mining machine, kind of like a potato harvester, would come along and dig up sediment. This would disrupt the top 10 to 15 centimeters of sediment, which is most of the habitat of the seafloor,” Smith tells me. “Nodule mining, because of its vastness and the slowness for the environment to recover, is basically an instantaneous wipeout of a community and ecosystem.”

When researchers from the University of Hawaii, like Smith, take box-core samples from the seabed, it's the norm to discover new species, not the exception. The rare deep-sea communities based on and around the nodules respond, unsurprisingly, extremely slow to change. They hardly ever experience any disturbance: “Even after a very small-scale scientific dredge, we can still see the tracks on the mud 30 years later,” says Jeff Drazen, the chair of the Biological Oceanography Division at the University of Hawaii. “They look like they were made yesterday.” The highest concentration of polymetallic nodules is in the Clarion-Clipperton Fracture Zone (CCZ), an area roughly 70 percent of the size of the continental United States, between Mexico and Hawaii. The zone has been divided

up into 15 national claim areas, seven environmentally protected areas, and one reserved area for the International Seabed Authority (ISA). Countries including Tonga, China, the United Kingdom, and Singapore all have claims. The metals these nodules contain are essential to modern technology. “The technology sector”—which includes the manufacturers of steel, fMRIs, smart phones, and LCD screens—“is completely dependent on these elements,” says Alex King, the director of the Critical Materials Institute, operated by the United States Department of Energy.



This huge species of cnidarian in the genus *Relicanthus* with 8-foot long tentacles has attached itself to a dead sponge stalk on a polymetallic nodule in the CCZ. Image by Diva Amon and Craig Smith.

Above-water mines supply the global rare earth industry with over 100,000 tons of metals per year, according to a 2015 report by the U.S. Geological Survey. A 2013 paper, published in *Ore Geology Reviews*, states, “The mineral resources required to sustain growth and to support green- and emerging-technologies can no longer be supplied solely from land-based sources,” but they’re “abundant in deep-ocean crust and nodules.” Take thallium, for example, a metal used in optics, electronics, and magnet-based machines—the nodules in the CCZ contain 6,000 times more of the stuff than the “entire terrestrial reserve base for those metals.” The necessary mining technology is too expensive relative to mineral prices for deep-sea mining to be profitable, though, so no one’s mined the nodules just yet. “Right now, it is nonexistent, a wannabe industry,” says John Wiltshire, the director of the Hawaii Underwater Research Lab, who has 40 years’ experience in the mining industry. Nevertheless, he says, it’s the “long-term future of mining.”

“Vast areas are being targeted by concession holders for future mining,” a recent *Scientific Reports* paper states. “Despite the present lack of knowledge, large-scale harmful effects of these activities are expected.” To prepare for that, the ISA requires a biological baseline study be undertaken for each contract area. These studies will inform environmental-impact assessments on the effects of deep-sea mining. The ABYSSLINE project, for example, a program led by Smith, started baseline surveys for the United Kingdom Seabed Resources Ltd. exploration contract area in 2013, which should be completed by 2018. But, given how little is known about the environment in the first place, it’s not clear how much help these assessments will be, says Diva Amon, a post-doctoral researcher at the University of Hawai’i’s Mānoa School of Ocean and Earth Science and Technology. “There are a lot of effects of mining that we can’t even anticipate,” she says. “We’re just starting to answer the question of what actually lives down there and we’re still not even close to answering that.”

Union: Fiji Miners not covered

Felix Chaudhary, The Fiji Times, November 26, 2016

THE mining sector is not covered under the country's Occupational Health and Safety (OHS) legislation, an issue that the Fiji Trades Union Congress is very concerned about. FTUC national secretary Felix Anthony said miners had been promised they would have their own OHS laws since 2007, and yet, nothing had been done. Employment, Productivity and Industrial Relations Minister Jone Usamate confirmed the mining industry was not covered under the Health and Safety at Work Act 1996. Mr Usamate said the Act applied to all workplaces in Fiji except workplaces or operations connected with the Mining Act, Quarries Act, Explosives Act and Petroleum (Exploration and Exploitation) Act.

"The mining industry is not covered under the health and safety at Work Act as this law deals with health and safety in general whereas in mining, there are industry specific characteristics or risks that are specific to it," he said. "The competencies required for mine inspectorates are industry specific whilst OHS inspectors have general health and safety competencies and the mining industry operates under stringent risk management systems that are unique to the mining industry. "I will look into this issue ensuring at all times that the best interests of Fiji as a whole are our priority." Mr Anthony said mine employees worked in a dangerous industry. "The risk of injury and even death is extremely high and there are no OHS laws to govern their workplace," he said. "We are very concerned about the working condition of workers in the mining industry and call on the Government to look into the matter with urgency."

France Confirms Tax Concessions To Avoid Closing New Caledonia Nickel Plant

French state has also helped the territory's two other nickel producers citing the sectors significance for the territory's economy

WELLINGTON, New Zealand (Radio New Zealand International, November 25, 2016) – France has confirmed tax concessions to avert a closure of New Caledonia's Koniambo nickel plant. The prime minister Manuel Valls confirmed to the president of New Caledonia's northern province Paul Neaoutyne that the power plant for the Koniambo smelter will benefit from concessions worth more than \$US200 million. Mr Neaoutyne told *Radio France* that he had been reassured by his talks in Paris which also included meetings with Glencore as one of the key investors in the multi-billion US dollar plant. He said Glencore will stay after earlier casting doubt on its commitment to the plant which is widely seen as essential for the northern province's economic future. The French state has also helped the territory's two other nickel producers, SLN and Vale, citing the sectors significance for the territory's economy. The drop of the nickel price caused losses for all smelters but in recent weeks, there have been signs of a recovery.

Transparency Needed On PNG Seabed Mining Project

By Franklin Koma

PORT MORESBY, Papua New Guinea (PNG Post-Courier, November 25, 2016) – Some non-governmental organisations are concerned about the lack of transparency behind the world's first seabed mining project set to begin operations in 2018 in the Bismarck Sea. It was claimed yesterday that Canadian company Nautilus Minerals, responsible for the project dubbed Solwara1, had kept its operations and plans secret from the Papua New Guinea public. Bismarck Ramu Group's Christina Tony told the media that Nautilus Minerals' refusal to provide key information on its operations was unfair to the people. Ms Tony said that the seabed mining project –15 percent of which is

owned by the State – would have environmental impacts and that any endeavour with such ramifications should have total transparency.

“We are not saying that the project is some evil thing that is utterly bad, all we hope to have is a report and if possible a second opinion on what environmental impacts could be wrought from the project,” she said. Ms Tony said that there remained strong opposition to the project among local communities and environmentalists, the World Bank included. The Mining Ministry yesterday that an environmental impact study has indeed never come out to the public and that only the PNG Government through the Mining Ministry was presented information on planned operations. Further, an independent company in Australia recently reviewed that environmental impact report that was presented and reported several concerns. “That information hasn’t been extended to the public yet.”

A representative of the Alliance of Solwara Warriors, Jonathan Mesulam, said that they have been fighting for public rights to information in PNG for many years. Last year, PNG's Mining Minister Byron Chan said communities in the Bismarck Sea area had been continuously consulted about the project. However, according to Mr Mesulam, “Nautilus does not have the consent of local communities. We still don’t know what the impacts of this experimental mining will be. According to Minister Chan, PNG stands to gain US124million from the mining project, and describes the expected environmental impacts of the project to be “relatively small”. Efforts at making contact with a representative from Nautilus Minerals were in vain.

Onus on Chinese to build dam if large Sepik mine proceeds

Radio New Zealand, 25 November 2016



Vanimo Harbour, West Sepik, Papua New Guinea. Photo: RNZI / Johnny Blades

A feasibility study was recently completed for the copper and gold mine in West Sepik province for which Chinese-owned company PanAust has lodged a special mining lease application. The study unearthed an even larger copper deposit than previously estimated. However, local communities are worried about potential mine tailings polluting the major Sepik River system. Katherine Karaya, the first secretary to the Mining Minister Byron Chan, said the government acknowledges the need to have sound environmental expertise incorporated before the mine is developed. "Well let's hope that the Chinese do a good thing, the right thing, to build a dam," she said.

"Let's keep our fingers crossed. They say they can do it, they've done it before in China, so let's wait and see. Only time will tell whether they can prove they can do it, or if not there's going to be another lawsuit like the Ok Tedi thing." Ms Karaya said the Environment Minister would have to be satisfied with the miner's plans before a mining license is granted. A pre-requisite for a license, according to the Mineral Resources Authority, is an environmental permit approved by PNG's Conservation and Environment Protection Authority. The MRA has also said PanAust would build a dam that would be part of PNG's largest land tailings storage facility to ensure tailings are not dumped in the Sepik River and its tributaries. The facility could double up as a hydro power dam for generating electricity.

Transparency needed on Seabed mining

Post-Courier, November 25, 2016

BY FRANKLIN KOLMA

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Deep concerns remain in PNG on mining in the Bismarck Sea

Radio New Zealand, 24 November 2016

A Papua New Guinea NGO says communities around the Bismarck Sea are not convinced by government assurances over the safety of seabed mining. Canadian company Nautilus Minerals is expected to begin its Solwara 1 project in 2018 in what is set to be the world's first seabed mining operation. The Bismarck Ramu Group was concerned that government gave approval for the project after only one environmental impact study carried out by Nautilus. The NGO's Christina Tony said

that despite assurances to New Ireland communities by both government and Nautilus that they don't have anything to worry about, people are deeply worried. "They are asking questions about how the government and Nautilus can guarantee them that these machines will not have a direct impact on the ecosystem that we depend on. The Bismarck sea and the Solwara 1 project is used as a science lab by Nautilus," said Christina Tony.

Fiji mine villagers to invest \$1m

Serafina Silaitoga, The Fiji Times, November 23, 2016

A LARGE sum of the premium payment of \$1.8 million for the third bauxite mine in Bua will be invested. Members of the yavusa Maururu of Nadua Village and landowning unit of the new bauxite mine at Wainunu have agreed to invest most of the funds for their future generations. Yavusa head Inosi Masivava said they were working with the iTaukei Land Trust Board about these issues. "We will invest \$1m and we have discussed options for investment, but it has to happen because our decisions today will have an impact on our future generations," he said. "All 22 members of our yavusa have agreed to this because we know that investing money increases our savings."

Apart from the investment fund, the yavusa has also set aside \$600,000 for improved housing project. Mr Masivava said a few members had already built, extended and refurbished their houses in the village. "We could not do this in the past because our income was limited and we could only pay the bills, buy food and take care of other expenses," he said. "But now we are seeing a big difference and fast change to our daily living with parents being able to build new toilets and bathrooms. "It's encouraging and great to see the positive changes happening within our yavusa, especially with our members." Mr Masivava said bauxite mining would not begin anytime soon. "It will happen on our piece of land, but we have been advised that it will happen later."

Lutherans Walk 9 days Across Highlands Region Campaigning Against Experimental Seabed Mining Rachel Shisei, EMTV News, 23 November 2016



It took 9 days and an estimated total of 261 kilometres, for a group of Lutherans, to walk four Highlands provinces.

Their outreach awareness focused on the issues affecting 'God's creations', or the natural resources in the country. The campaign specifically aimed at the Experimental Seabed Mining project, the only kind in the world licensed by the government, to operate in the country. "We are not in favor of this 'experimental' seabed mining project to happen in the country, so we're including and doing awareness in our outreach. If we don't do it, who else will?" said Pastor Matei Ibak, the Lutheran

Youth Bible Study Master. Ibak said, despite speaking about the ‘sea’ to people of the Highlands provinces; most people were in tears when the youth group from Karkar Island performed dramas and songs, expressing the importance of the sea to their livelihood, and country as a whole. This, he said, is a sign that people agree, that things are going the wrong way and may become worse, if nothing is done in time.

Former Chief Justice, a Karkar Islander and a Lutheran churchgoer himself, Sir Arnold Amet weighed in on the issue saying that in terms of awareness, the government has a lot more work to do to help the people understand the environmental; biological; and oceanographic impacts that the mining activity can have on the sea once disturbed. “The potential impact upon the sea life is still uncertain so I am expressing the view against the project from continuing until those issues are fully explained to the people. Sir Amet said, it is very vital that for such projects, the whole government, regardless of the various departments and levels of government, should unite and respond in accordance. “There’s a lack of united response that results in many issues remaining outstanding until disasters strike,” said Sir Amet. Pastor Ibak pointed out, that their awareness is not based only on the Lutheran faith, but promoting Christianity as a whole in the country; that in the beginning God created the earth, and gave man his first duty to look after the land and everything on it.

Build up of firearms threaten LNG project

Post-Courier, November 21, 2016

BY JEFFREY ELAPA

THE PNG LNG Project is under serious threat if the Government does not address the buildup of high-powered guns in Komo, deputy governor of Hela Thomas Potape has said. The firepower buildup surpassed police capacity, according to Mr Potape who said eight people had been killed by guns in the past week at Komo and Hides. He was instrumental with police assistance in a successful negotiation with the warring factions. He described the situation as a real threat to the PNG LNG Project, the Hides to Porgera power plant and other operations including the company base and sites. "I am calling on the National Government to allocate more funding and also increase manpower to protect the properties and also to help in retrieving high-powered guns.

It is more than Bougainville and something has to be done. We leaders in the province also need to work together to address the issue," Mr Potape said. He said that they could be able to stop tribal fights but did not have the capacity and manpower to remove all guns in the area. He said Hela police knew the type of guns in use and the buildup of the arms that surpassed police capacity and firepower. Komo is the hub of the PNG LNG Project and the first killings took place near Komo International Airport and another four were killed a day later at Nogoli near the Hides gas power plant. Mr Potape said the first fight at Komo station erupted after a member of the Pina clan was allegedly killed by a member of two warring clans, the Maiya and the Tope. Their earlier fight had claimed the life of a soldier and saw another three killed in retaliation. A lot of properties were also destroyed in the fighting.

All set for Sydney conference

Post Courier, November 19, 2016

The PNG Mining and Petroleum Investment Conference in Sydney will give potential investors a comprehensive overview of the resource sector in Papua New Guinea. The PNG extractive industry’s flagship summit is scheduled for December 5 at the Hilton Hotel in Sydney, Australia. Prime Minister Peter O’Neill and Treasurer Patrick Pruaitch open the conference and give presentations.

Over 900 delegates and exhibitors representing companies, state agencies, landowner, aid organisations and international investors and financiers will attend the 14th PNG Mining and Petroleum Investment Conference. Other Cabinet ministers who will make presentations include Mining Minister Byron Chan and Petroleum and Energy Minister Nixon Duban while other ministers, provincial governors and members of parliament are expected to attend. PNG Mining and Petroleum Chamber executive director, Greg Anderson, said the conference has always been a significant event for PNG, not only to showcase the country's mineral and petroleum potential to the international market but also to provide investors and financiers a forum to meet industry players and discuss investment opportunities.

“Despite the depressed global commodity market situation and the impact this has had on the PNG economy, there are some exciting resource opportunities emerging in PNG. Mineral exploration in recent years has resulted in the discovery and early appraisal of two significant copper-gold prospects – Kili Teke west of the Porgera mine, and in the Star Mountains north of the Ok Tedi mine,” he said in a statement yesterday. “Lihir and Simberi are performing very well and Ok Tedi is well on the path to recovery. There have been two applications this year for Special Mining Leases for Frieda River and Wafi-Golpu projects. "On the petroleum front, the PNG LNG project has proved to be one of the best LNG start-ups anywhere in the world. With nameplate capacity of 6.9 million tonnes annually, the project was able to ramp up production to a rate of 8 million tonnes per annum in the first quarter of 2016. This has set the scene for further LNG investment in PNG through the P'nyang gas field in Western Province and the Elk-Antelope gas fields in the Gulf Province.”

Deep sea mining plans for Papua New Guinea raise alarm

David Hutt, Mongabay, 18 November 2016



This image, from the Deep Sea Mining Watch project, tracks likely exploration of hydrothermal vents (depicted as purple dots) within Nautilus' exploration claim.

Hydrothermal vents create both hotspots of deep-sea biodiversity and rich mineral deposits. Papua New Guinea is at the centre of a debate about whether these sites should be preserved or mined.

- *Plans are moving forward to launch operations at the world's first deep sea mine, in Papua New Guinea's coastal waters.*
- *Nautilus Minerals, Inc. claims the project will have less ecological and social impact than on-shore mines.*
- *The mine's opponents say too little is known about the risks such projects pose to deep sea ecosystems and coastal communities.*
- *Despite its mineral riches, Papua New Guinea has very poor indicators for human health and well-being, and a long history of unrest centered on resource extraction.*

Remote-controlled vehicles will soon begin churning up the ocean floor off the coast of Papua New Guinea, searching for millions of tons of copper and gold. In 2011, Canada-based Nautilus Minerals, Inc. was granted a 20-year mining license by the government of Papua New Guinea to begin exploring almost 500,000 square kilometers (193,000 square miles) in the Bismarck Sea. The project, called “Solwara 1,” was granted the first-ever permit for deep sea mining. After a series of disputes and financial setbacks, extraction is slated to begin in the first quarter of 2019. The project aims to mine deposits laid down over thousands of years around underwater hot springs, otherwise known as hydrothermal vents.

These are found between one or two kilometers (0.6 to 1.2 miles) below sea level, where islands of life are created by a rare combination of superheated highly mineralized vent fluids, cold seawater and microbes that are capable of using these conditions to produce organic nutrients. The resulting ecosystems are rich in carbon dioxide, hydrogen sulfide, organic carbon compounds, methane, hydrogen and ammonium. What’s more, as one report opined, there is evidence to suggest that deep sea hydrothermal vents may be “where life first evolved on earth.” These same conditions make deep sea vents very attractive for resource extraction companies; when hot, mineral-rich vent fluids hit cold seawater water, gold and other precious metals drop to the sea floor.



Barnacles attached to hydrothermal vent spires feeding at Kawio Barat submarine volcano off the coast of Indonesia. Image courtesy of NOAA Okeanos Explorer Program, INDEX-SATAL 2010

“We know very little about deep sea ecosystems; some scientists say we know more about the surface of the moon,” said Natalie Lowrey, communications coordinator for the Deep Sea Mining Campaign told Mongabay. “The proponents of this ‘frontier’ industry are pushing the line that deep seabed mining will have less impact than terrestrial or land-based mining. This is a very irresponsible argument as there is no scientific evidence yet provided to say there will be little to no environmental impact.” Before mining is allowed to commence, Lowrey said, “independently verified research must be conducted to demonstrate that neither communities nor ecosystems will suffer long term negative impacts.” Nautilus maintains that it carried out extensive impact studies before applying for a mining permit, and found that mining more than 1,300 meters (4,265 feet) below the surface would not affect shallower water, due to the temperature and density of water at such great depths.

The company also commissioned US-based consultancy firm Earth Economics to write a report on the possible implications of the operation. The overall conclusion of the report, titled *Environmental*

and *Social Benchmarking Analysis*, was that the deep-sea mine would be “remarkably advantageous” because no people live at the site, so there would be “no cultural or historical claims to the site.” The report also concluded natural resources will be “less impacted” than with conventional mining since fresh water will not be contaminated, and that the possible impact of the mine would be less significant than the impacts of a nearby erupting underwater volcano. “The overall conclusion is that Solwara 1 has the potential for far fewer social and environmental impacts than the existing terrestrial mines examined,” it stated.



Bubbles of liquid CO₂ float out of the seafloor at Champagne vent in the Mariana Arc region. Photo courtesy of Pacific Ring of Fire 2004 Expedition. NOAA Office of Ocean Exploration; Dr. Bob Embley, NOAA PMEL, Chief Scientist.

When the report was published last year, it was widely criticized by environmental groups, economists and civil-society organizations. The critique was encapsulated in a rival report, titled *Accountability Zero*, authored by Helen Rosenbaum of the Deep Sea Mining Campaign and Francis Grey, of Economists at Large. According to its critics, the Earth Economics’ report used an unsatisfactory comparison between Solwara 1 and existing land-based copper mines to examine environmental impacts. Conservation biologist Richard Steiner told *Mongabay Nautilus* has “absolutely not” done enough research into possible affects. “These are poorly understood deep sea communities, and we are unclear what the full immediate and long-term impacts of mining disturbance would be,” Steiner continued. “But we do know that thousands of vent chimneys, and their associated biological communities, would be destroyed. It is likely that species yet to be identified may become extinct. And that raises some very serious ethical concerns.”

A 2011 report, again authored by Helen Rosenbaum, titled *Out of Our Depth*, noted that even before last year’s Earth Economics’ report, the “government of Papua New Guinea has granted a 20 year license for Solwara 1 based on a flawed Environmental Impact Statement and a superficial understanding of social and economic impacts.” The report added: “It may be concluded that in the case of Solwara 1, Papua New Guinea’s environmental approvals process has failed to protect the health of the marine environment, the livelihoods and well-being of coastal communities, and fisheries of national and regional economic importance.” Aside from the unpredictability of the operation, there are more practical risks associated with the endeavor. Janet Tokupep, the Alliance of Solwara Warriors, a community group that opposes deep sea mining, said in a statement last year that since the proposed mine site lies only thirty kilometers away from the mainland, it will greatly impact on the coastal communities, especially the fishermen who earn their living in the area daily. “The serious liabilities associated with the risks of Solwara 1 make it a disastrous investment,” Tokupep said. What this means is that, today, very little is known for sure about the possible risks of

the Solwara 1 project. The human and ocean life near the mine are set to be the proverbial Guinea pigs for a still untested technology.



Barnacles with cirri extended at Kawio Barat. Photo courtesy of NOAA Okeanos Explorer Program, INDEX-SATAL 2010

Why is Papua New Guinea risking so much?

“Papua New Guinea undoubtedly is a mining state.” So reads the homepage of the country’s Mineral Resources Authority. Indeed, Papua New Guinea relies on its natural resources, including oil and gas, copper, gold and other valuable minerals. The Asian Development Bank estimates that from a high of 30 per cent of the GDP in the 1990s, the mining and petroleum sectors now amount to around 20 per cent of the country’s GDP. However, there is reason to believe this is significantly higher. For example, a report by Pricewaterhouse Coopers suggested that gold alone contributed to 15 per cent of the country’s GDP in 2012, the highest contribution to a gold-mining country’s economy in the world. In 1988, then-prime minister Paias Wingti announced his ‘look north’ policy, intended to court investment from China and Japan. In recent years, Chinese companies have invested heavily in mining in Papua New Guinea. In May, the firm PanAust Ltd announced a \$3.6 billion investment to expand the Frieda River copper-mining project, though this may take another two-years for approval.

So far, the growth of the extractive sector has rarely translated into tangible improvements for the majority of the country’s inhabitants. In 2013, the Center for Global Development released its Millennium Development Goals (MDG) Progress Index, which tracked progress toward reducing hunger, poverty, child mortality and improving health and education. Papua New Guinea came second from bottom, only beating the Democratic Republic of Congo. Mineral rich Papua New Guinea has also suffered greatly from the extractive industry. In 1988, civil war broke out in the islands of Bougainville following protests over the Panguna copper mine. Sabotage and attacks were carried out by the Bougainville Revolutionary Army, which led to the closure of the mine and the call for independence. The civil war came to an end in 1998, costing the lives of between 15,000 and 20,000 people, and led to Bougainville being made an autonomous region of Papua New Guinea. While this was the most serious of the crises, it was not the only problem caused by mineral extraction. Protests are common throughout the country as many of the country’s poor feel they have been left out from reaping the benefits, only to suffer from the process.

Global concerns

As Mongabay reported last month, Solwara 1 is the beginning in a new trend in deep-sea mining. Using software developed by Deep Sea Mining Watch that allows internet users to track vessels engaged in deep sea mining activities from anywhere in the world, researchers found that five Russi-

an-flagged vessels were charting waters belonging to the Polynesian kingdom of Tonga, and another vessel has been scouting areas near the Mariana Trench. As of last year, the Center for Biological Diversity estimates there to be 26 permits in operation for deep-sea mining. For example, an estimated 1.5 million square kilometers (about 580,000 square miles) of ocean floor in the Pacific Islands Region is now believed to be under exploration by private companies and state-owned firms. “Deep Sea Mining is a highly experimental and untested activity. At present, there are no viable deep-sea mining operations – and there are no enforceable regulations governing such exploitation,” said Payal Sampat, Mining Program Director of Earthworks.



Active “smoker” chimneys precipitating iron, copper and zinc sulfides from 230°C fluid. Photo courtesy of Pacific Ring of Fire 2004 Expedition. NOAA Office of Ocean Exploration; Dr. Bob Embley, NOAA PMEL, Chief Scientist

“It’s hard to imagine that DSM will be commercially viable in the next few years given the many uncertainties and risks involved.” According to Lowrey, the Solwara 1 project, based on such limited research and information, has established “a frightening precedent” for the Pacific region. “Very little is understood about the possible impacts of this one project let alone the many projects for which exploration is starting throughout the Pacific,” she said. Steiner argues there should be a 10-year moratorium on issuing any permits for deep-sea mining. “We simply do not have the understanding of these deep ocean biological systems to feel comfortable with moving forward with this scale of industrial development,” he said. “Unfortunately, with such strong coast state government support and industry interest, and demand for more raw minerals in the global economy, there is a great deal of pressure to conduct deep-sea mining.” He added: “The effects could be greater than any industrial activity to date anywhere.”

Western Governor Ati Wabiro and two others sentenced to 10 years in prison

Post-Courier, November 18, 2016



THE Waigani National Court sentenced Western Governor Ati Wobiro and two others to 10 years imprisonment this afternoon. They will each serve 10 years in prison in relation to the K7.6 million misappropriation case. The two other co-accused are Provincial Administrator for Western Province Dr Modowa Gumoi and Chief of Fly Care Foundation Inc Norman Carl May. The maximum penalty for misappropriation is 50 years but the court considered the mitigating factors which indicated that they did not directly benefit from the funds and also the restitution of K373,971.68 which they paid earlier. The court therefore reduced the penalty. On the charges of conspiracy to defraud, the court sentenced them to 4 years to be served concurrently with the misappropriation charge. This means all three will serve a maximum of 10 years each in prison. The three will have a maximum 30 days to appeal their sentence. Their lawyers are expected to file a bail application on Monday.

Hidden Valley landholders furious at MRA delays

Sampson Bonai, Post Courier, November 18, 2016

THE revised Memorandum of Agreement (MOA) of the Hidden Valley gold mine in Wau is gathering dust at the Mineral Resource Authority head office in Port Moresby pending its endorsement two years ago. A furious Nakuwi Landowners Association president Rex Mauri questioned the motive behind MRA's delay in its endorsement of the revised agreement during a media conference in Lae yesterday: "Why has MRA delayed the endorsement of the revised and initial agreement of Hidden Valley gold mine for its implementation two years ago? "The revised agreement had been negotiated by all stakeholders including Morobe Mining Joint Ventures, Mineral Resources Authority, Treasury, Morobe Provincial Government and the Hidden Valley landowners in 2013-2014". It had been initialed and is awaiting endorsement from the government for its implementation, since four years ago.

"I'm very disappointed over the long delay and call on the relevant state agencies to fast track the approval process and endorse the revised agreement for the benefit of all stakeholders," he said. The outspoken president said the delay had greatly affected the three landowner villages of Nauti, Kwembu and Winima from participating in all the major spin off business activities from the mine. He said the original Memorandum of Agreement was signed in August 5, 2005 by the developer and all the stakeholders in Wau before the commencement of the construction work on the mine in 2006. The mine began mining operations and poured its first gold bar in the first quarter of 2009.

The mine was commissioned by Prime Minister Peter O'Neill on September 30, 2010. The review of the original MoA had been done after four years of operations between 2013-2014 and a revised agreement had been initialed. He explained that the landowners have become spectators on their own land and outsiders have capitalised on the delay by taking out most of the major contracts from the mine. He called on Prime Minister Peter O'Neill to intervene and direct MRA to forward the revised agreement to the Government to have it signed and endorsed.

Ramu landholders withdraw threat to close mine

Post Courier, November 18, 2016

LANDOWNERS at the Ramu nickel and cobalt project have committed not to disturb the only multi-million dollar project based in Madang Province. The four landowners associations representing the project impacted communities including, Kurumbukari, Basamuk, Coastal Pipeline and Maigarimade the resolution at a conference earlier this week with the managing director of Mineral Resources Authority Philip Samar. This follows a threat to disturb the project in a letter dated Novem-

ber 8, from the three LOA chairmen, Peter Tai (Maigari), Jeffery Gamrai (Coastal Pipeline) and SamaMellombo(Basamuk) while Toby Bare from Kurumbukari refrained saying there were legal avenues to sort out issues. The chairmen in their notice attention to Ramu NiCo Management (MCC) and MRA gave seven days ultimatum as of November 9, to respond to their claims or shut-down the mine.

The issues include royalty, K10 million business development grant promised by the national government five years ago and spin-off business opportunities for landowners. In the meeting involving the LOA chairmen, RamuNiCo and MRA, all parties resolved that royalty will be paid soon but formalities had to be sorted out by the company and MRA. In the past the government and the company continued discussions formulating ways to calculate the royalties as the current formulae according to the mine development contract does not enable the company to pay any royalties due to the current low nickel prices. All parties also resolved that the outstanding K10 million BDG was a political commitment by the government and all administrative avenues have been exhausted. “MRA has submitted a NEC submission for Mining Minister to take to Prime Minister and NEC and Cabinet for their blessing to release the Grant and now waiting respond from the Prime Minister,”

Mr Samar said. On the issue of spin-off business opportunities, all parties agreed to convene a forum on December 14, in Madang to deliberate on the matter. “The MRA to release a letter detailing program and what is expected at the forum and RamuNiCo to assist by reviewing all contracts and find opportunities were possible for the Lancosto participate.” Meanwhile, RamuNiCo has expressed concern that since the inception of the project in 2006, landowners were off-loaded numerous business opportunities but have not prospered due to lack of competent management acumen. “The business development opportunities that have been given to landowners will need to be properly managed to ensure stakeholders benefit from these opportunities,” they said.

Phosphate Mining Firms Set Sights on Southern Africa’s Sea Floor

Mark Olalde, Inter Press Service, November 17 2016



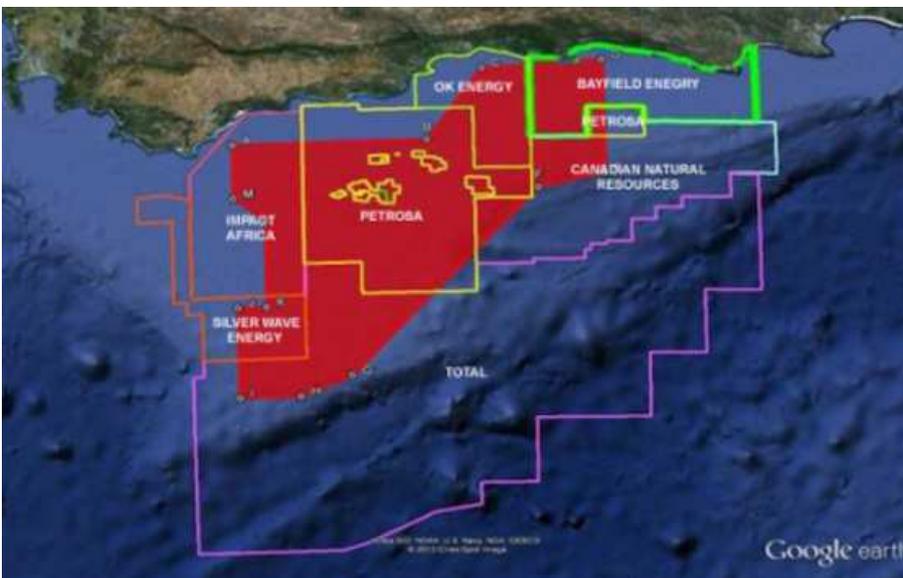
Most attempts at seabed phosphate mining have sputtered in the face of moratoriums and other roadblocks. Graphic courtesy of Centre for Environmental Rights

A persistent fear of diminishing phosphorus reserves has pushed mining companies to search far and wide for new sources. Companies identified phosphate deposits on the ocean floor and are fighting for mining rights around the world. Countries in southern Africa have the potential to set an

international precedent by allowing the first offshore mining operations. South Africa specifically is one of the first countries on the continent to begin legislating its marine economy to promote sustainable development, and questions surround mining's place in this new economy. From April 2007 to August 2008, the price of phosphate, a necessary ingredient in fertilizer, increased nearly 950 percent, in part due to the idea that phosphate production had peaked and would begin diminishing. Before prices came back down, prospectors had already begun looking for deep sea phosphate reserves around the world.

Since then, the fledgling seabed phosphate industry has found minimal success. While several operations are proposed in the Pacific islands, New Zealand and Mexico rejected attempts at offshore phosphate mining in their territory. This means southern African reserves – created in part by currents carrying phosphate-rich water from Antarctica – are the new center of debate. Namibia owns identified seabed phosphate deposits, and the country has recently flip-flopped about whether to allow mining. A moratorium was in place since 2013, but in September the environmental minister made the controversial decision to grant the necessary licenses. Since then, public outcry forced him to set those aside.

The former general project manager of Namibian Marine Phosphate (Pty) Ltd, a company that applied to mine in Namibia, told IPS that environmental groups and fisheries proved to be a loud and organised opposition. He predicted the debate in South Africa would be just as difficult for mining companies to win with no precedent for such mining. Adnan Awad, director of the non-profit International Ocean Institute's African region, said, "There is generally this anticipation that South African processes for mining and for the policy around some of these activities are setting a bit of a precedent and a bit of a model for how it can be pursued in other areas." Three companies, Green Flash Trading 251 (Pty) Ltd, Green Flash 257 (Pty) Ltd and Diamond Fields International Ltd., hold prospecting rights covering about 150,000 square kilometers, roughly 10 percent, of the country's marine exclusive economic zone.



Diamond Fields International's prospecting right along 47,468 square kilometres of the Indian Ocean shares space with areas of oil exploration and production. Source: Diamond Fields International Ltd. background information document.

The law firm Steyn Kinnear Inc. represents both Green Flash 251 and Green Flash 257. "Currently it does not seem as if there is going to be any progress, and there is definitely not going to be any mining right application," Wynand Venter, an attorney at the firm, said, calling the project "uneconomical." Venter said the Green Flash companies received drill samples, which showed current prices could not sustain seabed phosphate mining. This leaves Diamond Fields as the only remaining

player in South African waters. The company announced in a January 2014 press release that it received a 47,468 square kilometer prospecting right to search for phosphate.

According to information the company published summarising its environmental management plan, prospecting would use seismic testing to determine the benthic, or seafloor, geology. If mining commenced, it would take place on the seafloor between 180 and 500 meters below the surface. “A vital and indisputable link exists between phosphate rock and world food supply,” the company stated, citing dwindling phosphate reserves. Diamond Fields did not respond to repeated requests for comment. Environmentalists argue that not only would phosphate mining destroy marine ecosystems, but it would also lead to continued overuse of fertilizers and associated pollution. They call for increased research into phosphate recapture technology instead of mining. “We could actually be solving the problem of too much phosphates in our water and recapturing it. Instead we’re going to destroy our ocean ecosystems,” John Duncan of WWF-SA said. The act of offshore mining requires a vessel called a trailing suction hopper dredger, which takes up seafloor sediment and sends waste back into the water column.



A southern right whale swims off the coast of the Western Cape province near Hermanus, a town renowned for its whale watching. South Africa’s Department of Mineral Resources granted three prospecting rights covering about 150,000 square kilometers, or 10 percent, of the country’s exclusive economic zone. Credit: Mark Olalde/IPS

“It amounts to a kind of bulldozer that operates on the seabed and excavates sediment down to a depth of two or three meters. Where it operates, it’s like opencast mining on land. It removes the entire substrate. That substrate become unavailable to fisheries for many years, if not forever,” Johann Augustyn, secretary of the South African Deep-Sea Trawling Industry Association, said. In addition to direct habitat destruction, environmentalists argue the plume of sediment released into the ocean could spread out to smother additional areas and harm wildlife. Mining opponents also worry offshore mining would negatively impact food production and economic growth. Several thousand subsistence farmers live along South Africa’s coast, and the country’s large-scale fishing industry produces around 600,000 metric tonnes of catch per year.

“[Mining] may lead to large areas becoming deserts for the fish populations that were there. If they don’t die off, they won’t find food there, and they’ll probably migrate out of those areas,” Augustyn said. While the fishing and coastal tourism industries account for slightly more than 1.4 billion dollars of GDP, the potential economic benefits from marine mining remain unclear. There are no published estimates for job creation, but Namibian Marine Phosphate’s proposal said it would lead to 176 new jobs, not all of them local. “The benefits are not coming back to the greater South African community,” Awad said. “African countries generally have been quite poor at negotiating the be-

nefits through multinational companies' exploitation of coastal resources." South Africa is one of only three African nations – along with Namibia and Seychelles – implementing marine spatial planning. This growing movement toward organised marine economies balances competing uses such as oil exploration, marine protected areas and fisheries.

Earlier this year, the Department of Environmental Affairs, DEA, published a draft Marine Spatial Planning Bill, the first step toward creating marine-specific legislation. According to government predictions, a properly managed marine economy could add more than 12.5 billion dollars to South Africa's GDP by 2033. What part mining will play in that remains to be seen. "Internationally the off-shore exploration for hard minerals is on the increase and it is to be expected that the exploitation of South Africa's non-living marine resources will also increase," the DEA's draft framework said. Neither the Department of Mineral Resources nor the DEA responded to repeated requests for comment. Mark Olalde's mining investigations are financially supported by the Fund for Investigative Journalism, the Fund for Environmental Journalism and the Pulitzer Center on Crisis Reporting. Additional support for this story was provided by #MineAlert and Code for Africa.

Porgera's sexual assault survivors plead for UN action against Barrick Gold

Elizabeth McSheffrey, National Observer, November 17, 2016



Indigenous survivors of sexual violence at the Porgera Mine in Papua New Guinea demand justice from Toronto-based mining giant, Barrick Gold. Photo courtesy of MiningWatch Canada.

Nearly 120 sexual assault survivors at a Canadian mining giant's joint operation in Papua New Guinea are pleading their case to the United Nations and asking for an intervention in their pursuit of justice. On Wednesday, a massive group of Indigenous women who live near Barrick Gold's Porgera mine submitted a letter to officials at the fifth annual UN Forum on Business and Human Rights in Geneva, where they demanded fair remedy for their grievances from the Toronto-based corporation. "The company's guards raped us," said Everlyn Gaupe, one of the women who says she was harmed by staff at the mine, in a press statement. "The company ignored us for years. When the company finally created a remedy program, we 119 women went to it. But the remedy was not fair. "We did not get everything that we were promised. We call for the support of the UN because Barrick Gold is ignoring our call to pay us equal compensation."

No plans to offer extra compensation, says Barrick

Barrick Gold is the largest gold producer in the world and owns nearly 50 per cent of the southwestern Pacific Porgera mine. The other majority stake belongs to a Chinese producer called Zijin Mining Group and five per cent of the mine is owned by the local provincial government and landowners. In an interview with *National Observer*, senior vice-president of communications Andy Lloyd

recognized the "horrific" nature of the victims' experiences, but said the company was not considering reopening the remedy process for them at this time. "I'm not aware of anything that wasn't delivered upon," he said over the phone. "The individuals who brought forward those claims, at the time of acceptance of those remedies, essentially accepted that the remedy that was offered met their expectation, and they acknowledged that the claim had been addressed."

The Porgera Mine, which produced nearly 500,000 ounces of gold in 2015 alone, has been the notorious site of gang rape, beatings, and other atrocities since its the start of its operations in 1990. Detailed reports by Human Rights Watch and other industry watchdog groups describe disturbing cases of extreme violence at the hands of mine security personnel, some of whom threatened victims with arrest if they tried to complain to other authorities. Barrick Gold acquired its interest in the mine in 2006, and in 2012, started its a formal remediation program for female victims of sexual violence in the Porgera Valley. Many of the cases, said Lloyd, occurred before Barrick Gold became involved, but the company has worked hard over the years to end a pattern of sexual violence and domestic abuse not only at the mine, but in the community at large.



The Toronto-based mining giant, Barrick Gold, owns roughly 50 per cent of the Porgera Mine in Papua New Guinea, pictured here. Photo courtesy of Barrick Gold.

Mining in "complicated environments"

"There is a broader issue of sexual assault and violence against women that is unfortunately very pervasive in that region, and it's something we've also tried to work on," he explained. "We now have a global human rights training program and all of our employees participate. We've done gender-based violence for employees from Zambia to Papua New Guinea to the United States. "We've really tried to use our influence to try to make a difference on this issue and some positive contribution." In Papua New Guinea specifically, he said, the mining company has made substantial contributions to the Porgera District Women's Association, the Family and Sexual Violence Unit of local police, and has provided funding for new women's welfare liaison officers, which provide an alternative avenue for women to report cases of abuse.

Barrick Gold operates in some of the most "complicated environments" for mining in the world, Lloyd explained, and often inherits those properties from others. It's not an excuse, he said, but adds some context to the criticism of industry watchdogs and international NGOs. While MiningWatch Canada, for example, has supported the calls for extra cash compensation for victims, he said, an independent human rights consultant that reviewed Barrick's remediation framework for survivors of sexual violence found that cash remediation often exposed claimants to re-victimization through theft or further abuse from family members. In that review, the consultant noted that the Porgera Remedy Framework Association (PRFA) supported this conclusion, and unanimously expressed:

"... Payment of cash compensation, especially as a lump sum, would (i) subject the women to a severe risk of re-victimization at the hands of their families, and (ii) ultimately leave the women in no better position vis-à-vis their families and communities because the money would very quickly be disbursed to others at the expense of the claimants themselves." In an email to *National Observer*, MiningWatch Canada's Catherine Counmans said she recognized that Barrick was advised against cash payments, but her own experience interviewing victims at the Porgera mine told her that they frequently asked for cash to be part of their settlements, along with education, housing, and other resource supports. The NGO has documented cases of human rights, safety, and environmental violations at Barrick's mines all over the world for years, and those of its subsidiaries.

"We reported that, because rights-compatible remedy should take into consideration the wishes of the victims and Barrick wasn't going to give them any cash," she explained. "However, we never advocated for what Barrick eventually did, which was to largely abandon individually tailored remedies in favour of a near uniform dump of cash." Sexual violence survivors near the Porgera Mine in Papua New Guinea are demanding fair compensation from Barrick Gold at the fifth annual UN Forum on Business and Human Rights on Wed. Nov. 17, 2016.

Indigenous women demand more

Indeed, according to the letter penned by the Indigenous women to the UN on Wednesday, Barrick's efforts have been wildly inadequate. Through the remediation program, they each received PGK 50,000 (roughly \$21,000) and a promise that school fees and medical support would be provided for their children over the next three years. But much of the latter has not been delivered, they argued, demanding additional compensation equal to what Barrick Gold has provided other Porgera sexual abuse victims who took a legal route to address their grievances rather than participate in the remediation program. In 2015, 11 survivors of sexual assault at the mine settled out of court with Barrick, for what was reportedly a much larger sum than was provided through the program.

Those sums have been kept confidential and *National Observer* could not confirm the numbers. "For the women, this is another step in what has been a long process over many years fighting for their right to remedy for brutal sexual assaults by mine guards," said Coumans. "These are strong women who are fighting for justice against the largest gold mining company in the world." She confirmed that survivors of abuse at the Porgera Mine have not sought compensation from other stakeholders, including Zijin Mining Group in China, and criticized Barrick Gold for including a stipulation in their remedy program that requires women who participate to sign away their right to sue the company for the abuse.

Lloyd said the program was run by some of the country's leading women's rights advocates, but Barrick knew it could have been improved. "I think we will take from that experience and hopefully we never have to implement a program like that," he told *National Observer*. "We want other companies to look at our experience and potentially improve upon the program that we tried to put together in good faith. Our hearts go out to the women who are victims of sexual assault." Since 2005, the company has come under international criticism for similar incidents of violence at its mine in Tanzania, and a wide array of environmental and safety violations in Argentina and Chile.

Solwara One project may begin in 2019

November 16, 2016, *The National*

By SHIRLEY MAULUDU

NAUTILUS Minerals says the development of the Solwara One project in New Ireland may begin in 2019. A spokesperson told *The National* yesterday that the company was still sourcing additional

funding for the development of the project. “The company has now secured the necessary bridge financing to facilitate the time required to secure additional required funding,” the spokesperson said. “If the additional required funding is secured by June 2017, and subject to ongoing detailed planning, the company could be in a position to commence the initial deployment and testing operations at the Solwara One project by the end of Quarter One in 2019.” Nautilus earlier said in the event that the required funding was secured and the company could continue development of the Solwara One project, the schedule would be delayed.

In a statement in August, Nautilus noted that there was no assurance that the company would be able to obtain the necessary project financing on acceptable terms or at all. The failure to secure project financing may result in the company taking various steps to maximise shareholder value, including suspending or terminating the development of the Solwara One project, and engaging in various transactions including, without limitation, asset sales, joint ventures and capital restructurings. The company also previously told *The National*: “Nautilus Minerals is still committed to delivering the Solwara One Project in Papua New Guinea. “We are currently in discussions with various parties that are commercially sensitive. “We will continue to update all stakeholders as things progress. We remain confident that we can deliver the project and appreciate the strong support we have from our shareholders, partners and stakeholders.” Solwara One is located approximately 30 kilometres from the nearest coast (New Ireland).

PNG EITI to hold awareness on revenue management

November 16, 2016, *The National*

A SERIES of awareness on revenue management in the petroleum and mining sectors will be conducted, beginning in New Ireland and spreading to other provinces. Head of the Papua New Guinea Extractive Industries Transparency Initiative (PNGEITI) national secretariat Lucas Alkan said the roadshow awareness began on Monday in New Ireland. “The PNGEITI Multi-Stakeholder Group working team, will conduct an awareness road show in New Ireland for a week beginning Monday,” Alkan said. “This is the beginning of a series of planned roadshows to be conducted in mining and petroleum host provinces in the country. “The group is now on Lihir Island to begin the awareness and will continue on to Simberi, Kavieng and Namatanai at the end of the week. “They will do presentations to financial beneficiaries inclusive of provincial and local level governments, landowner groups and associations. “Company officials of Newcrest and St Barbara (Simberi) will be in attendance. “The goal is to educate the public, especially mining and petroleum project stakeholders, companies, landowners and provincial and local level governments on what the EITI concept is.” He said the roadshows aimed to educate groups on the importance of the PNGEITI reporting process through knowledge building, financial interpretation of PNG laws and revenue streams.

St Barbara’s PNG gold fails to lure precious bid

Barry Fitzgerald, *The Australian*, November 15, 2016

St Barbara has pulled the sale of its Papua New Guinea gold assets — including the 100,000 ounce a year Simberi mine — after bids failed to match the company’s expectations. “While a number of potential buyers expressed interest in the PNG assets, their level of interest did not meet St Barbara’s assessment of the value of these assets,” the company said. Simberi has a mine life of about two years ahead of it, with a possible seven-year life extension if a \$135 million development of the operation’s sulphide mineralisation was to proceed. St Barbara stopped short of making any decision on the sulphide project but has come up with a possible life-extending oxide solution in a joint venture with Newcrest. Under the deal between the pair Newcrest will explore for copper-gold on St Barbara’s tenements on the nearby Tatau and Big Tabar islands. Newcrest could earn up to a 75

per cent interest by spending \$US25 million (\$33m), with St Barbara retaining the rights to oxide and sulphide material capable of being treated back on Simberi, either through the existing oxide plant, or the contemplated sulphide plant.

St Barbara itself will continue to push ahead with its own exploration across the Tabar island group for life-extending ore for Simberi, if not make a stand-alone discovery. Managing director Bob Vassie said Simberi was now consistently generating good cash flows. "We've tested each strategic option for the future of the PNG assets, and we are now clear about the preferred strategic direction," Mr Vassie said. Credit Suisse mining analyst Michael Slifirski said the decision to keep Simberi in part reflected St Barbara's reduced need for cash for debt reduction given the strong cash flows from its Australian operations. He said the high cost and scarcity of acquiring a replacement asset and the materially improved operating performance of Simberi were also likely to have been factors. "But reserves (at Simberi) are depleting fast." St Barbara shares were caught in yesterday's sell-off in gold equities in response to continued gold price weakness, falling 25c or 9.8 per cent to \$2.28. Gold has fallen from more than \$US1300 an ounce before the US election to \$US1223 an ounce late yesterday.

Renewables better alternative than coal for PNG

Dateline Pacific, Radio New Zealand, 14 November 2016

A group campaigning against investment in coal in Papua New Guinea says renewable energy sources are a better alternative. There are signs of a move towards coal-powered energy in PNG with the Mineral Resources department this year directing ten million kina towards exploring the sector. However, plans for a coal-fired power plant in Lae are yet to meet approval from the Morobe provincial administration or PNG Power. Chris Lahberger from the Nogat Coal PNG group talked to Johnny Blades about his group's concerns.

CHRIS LAHBERGER: Firstly, there's the issue of climate change where the new just keeps getting worse, and Papua New Guinea itself has some of the first refugees in the world from climate change with the Carteret Islanders in Bougainville having to be relocated. So there's that and also the prospect of building a coal-fired power plant right in downtown Lae. The Lae wharf area is literally seven hundred metres from the Lae CBD. This doesn't happen anywhere else in the world where you build a coal (plant) right in the middle of an urban area. So we think there's definitely some health issues there. We've seen some good support from the people at the PNG Cancer Foundation. They acknowledge there's a big risk there if they built coal powered fumes in the middle of Lae.

JOHNNY BLADES: There's a company or two who have got quite significant interests in looking into this in the Papua basin, in the Gulf and elsewhere right?

CL: Yeah that's right. There's really no need for PNG to invest in coal. There are huge resources for renewable energy here. We're situated in location on the equator where we get very strong trade winds for nine, ten months of the year that would be awesome for wind power. And obviously, we're close to the equator so there's massive resources for solar (power); and we have very high mountains and big rivers, so we have hydro resources, some of which have already been tapped but really, we've only just scratched the surface of hydro. We could just about provide enough hydro to power the entire country and much of the Australian east coast seaboard as well if we had the right infrastructure in place. So if I hear we need coal for energy, I don't think that's right. The only real reason why you'd invest in coal right now would be to make some economic headway out of it, try to turn it into an export market and make some sales in the global coal market. But as we've seen on the global coal market, the price is pretty low. A lot of countries now are transitioning away from coal and they're looking into renewables. So I can see the risk in the future that to invest in coal now you wouldn't necessarily get the returns that you'd think you'd get.

St Barbara retains PNG assets, forms exploration JV with Newcrest

Esmarie Swanepoel, Mining Weekly, 14 November 2016

Gold miner St Barbara Gold has decided to retain its Simberi operations, in Papua New Guinea, following a strategic review. The company in February this year launched the review to evaluate "various options" for the assets, including continued ownership, exploration and development, possible joint ventures and divestment of some or all of its assets in the country. St Barbara said on Monday that while a number of potential buyers had expressed interest in the Papua New Guinea assets, their level of interest did not meet the company's assessment of the value of the assets. Instead, the company has inked an option and farm-in agreement with gold miner Newcrest's Papua New Guinea exploration arm, for copper/gold porphyry exploration on the tenements on nearby Tatau and Big Tabar Island, subject to the completion of conditions precedent.

The agreement gives Newcrest the option to earn a 75% joint venture interest on tenement holdings, and will require Newcrest to pay an initial \$3-million in exploration fees over a two-year option period, conducting 4 000 m of diamond drilling. The company can then earn a majority share in the project areas by spending a further \$25-million in exploration and drilling 32 000 m of diamond drilling, over two stages ranging up to six years. Under the agreement, St Barbara will manage the exploration during the initial earn-in period, and will retain the right over all oxide and sulphide material which is, or has the potential to be mill feed for existing oxide or the contemplated sulphide plant at Simberi. In addition, St Barbara will spend between A\$6-million and A\$7-million in 2017 on its own exploration across the Tabar Island group, including Simberi.

MD and CEO Bob Vassie told shareholders on Monday that the strategic review had been rigorous, and that the company had tested each strategic option for the future of the Papua New Guinea assets. "What we own in the Papua New Guinea would be difficult to replace in the current market. St Barbara's diligent work over the last few years has successfully turned around the Simberi operation, which is now consistently generating good cash flows. "The prospectivity of the region, and the potential for exploration discovery on the Tabar Island group is demonstrated by the significant option and farm-in agreements with Newcrest." Vassie said that the gold miner's focus was on continuing exploration work to extend the oxide mine life at Simberi, improve the sulphide opportunity, maximise the value from exploration interest, and work with Newcrest to achieve success from the joint exploration.

A Nation Mined – A Nation Destroyed!

PNG Mine Watch, November 14, 2016

The maps above and below show the extent of current mining in Papua New Guinea and what the future could hold if we continue to ignore the evidence of our own history and continue to allow our leaders to ignore our own Constitution. Back in 1974, the Constitutional Planning Committee warned of the catastrophic consequences of allowing large-scale resource extraction (mining, oil and gas and logging) and foreign control of our natural resources. They labelled such industries as part of a: "grossly unjust international economic system which allows wealthy corporations and countries to exploit the people and resources of developing countries". The CPC said if PNG followed an economic path that depended on mining and logging then we would see:

- Huge differences in wealth between a small minority 'elite' and the majority of the population
- The destruction of our communities, values and PNG ways
- Violence and lawlessness as people are 'locked out' of development
- Environmental destruction and social upheaval

Company optimistic sand mining on Fiji's Sigatoka River will be approved

Radio New Zealand, 11 November 2016



Sigatoka River, Fiji. Photo: RNZI / Johnny Blades

An Australian mining company says it's very optimistic it will get the green light to mine sand along Fiji's Sigatoka River. Dome Gold Mines is seeking a mining lease from the government for the ironsands project. It's rejecting concerns the mining could pose a threat to the environment or the nearby Sand Dune National Park, which contains an important Lapita archaeological site. The company's chief executive Jack McCarthy said the project could bring a hundred jobs and environmental benefits. "The river itself being so choked would benefit by being deepened, and the Government of Fiji I believe is interested in that happening and that would be for flood mitigation purposes," he said. "But in addition to that it would open the river up for commercial and pleasure craft that currently can not enter the river because it's too shallow." Jack McCarthy said it would be two years before mining would get underway after the project is approved.

Sand mining in Fiji promises environmental and economy benefits

Dateline Pacific, Radio New Zealand, 11 November 2016

An Australian mining company is dismissing concerns about its proposal to mine sand along the Sigatoka River in Fiji. Dome Gold Mines says it's waiting for the government to approve a mining lease for the Ironsands Project. Concerns have been raised about the effect it could have on the environment and the nearby Sand Dunes National Park, which contains an important Lapita archaeological site. But the company's chief executive Jack McCarthy told Jo O'Brien that rather than causing harm, the project will bring economic and environmental benefits

JACK MCCARTHY: The sand deposits formed over thousands of years and one of the minerals it contains is magnetite which is used for iron ore production. But during the development of the project we realised that the river itself being so choked would benefit by being deepened and the Government of Fiji I believe is interested in that happening and that would be for flood mitigation purposes but in addition to that it would open the river up for commercial and pleasure craft that currently can not enter the river because it's too shallow, and possibly open the river for the transport of goods from the Sigatoka River Valley. Our project would result in production of excess sand and excess gravel and magnetite as a concentrate, which is used in the steel-making process, and also a non-magnetic heavy mineral product which we would like to look to market. It would not involve the use of any chemicals. It's basically a situation where you dig the material up using a

dredge and that's pumped through a processing plant and only is water is used in the processing plant.

JO O'BRIEN: What benefits would you see this project bringing for the local people and the local economy?

JMC: Aside from the things I mentioned with regard to the river, which would improve water quality and fish stocks there would be quite a number of jobs created locally, and clearly that would have a commercial impact in the local community and the local economy.

JOB: Would you have an idea of how many jobs?

JMC: About 100 permanent jobs created.

JOB: You mentioned water quality, there have been some concerns about the environmental impact of the project. Are there any issues there for people to be concerned about?

JMC: No I think the concerns are probably based on a lack of understanding. Our feedback with the community is that the river itself presents a danger to them for flooding. But no there wouldn't be any negative environmental impact, if there is any environmental impact it's going to be positive. I mean deepening the river provides a much larger volume of water in which fish stocks can live. It will improve the water quality itself in that tidal area because the water flow will be able to get in and out of the river more easily. It should improve and allow access to fishing.

JOB: And you mentioned the Sand Dunes National Park, there have been some fears about the impact it could have on that area, a heritage area. What's your response to that?

JMC: There's no impact whatsoever. The park boundary is well established. Our operations are well outside the park boundary.

JOB: So there's no danger to the sand dunes or the archaeological site there?

JMC: No those dunes are not remotely connected to what we are trying to do.

HPL makes headway on Sewa Bay

Post-Courier, November 10, 2016

ADDITIONAL nickel exploration work planned for Highlands Pacific Limited's (HPL) Sewa Bay tenement in Milne Bay Province, are to advance to the next stage. Highlands Pacific Limited said this is where significant nickel mineralisation previously has been identified. The work will be undertaken by HPL and its partners- international trading house Sojitz Group, together with Japanese company Pacific Metals Co Ltd. The exploration activity will include an airborne laser and imagery (LIDAR) survey over the 200 sq km tenement area, to provide detailed topographical mapping. The exploration program will be funded by Sojitz and Pacific Metals, and follows an extensive auger drilling program carried out in 2015, which encountered intercepts including:

- 1.1 metres at 1.61 per cent Ni from surface;
- 1 metre at 1.43 per cent Ni from surface;
- 2.4 metres at 1.42 per cent Ni from surface;
- 1 metre at 1.41 per cent Ni from surface; and
- 1.9 metres at 1.4 per cent Ni from surface.

The firm in its report to the Australian Stock Exchange said as a result of the auger drilling program, two main areas of mineralisation above 1% nickel were identified covering an area of 7 square kilometres. Highlands Pacific managing director John Gooding said the ongoing commitment of Sojitz and Pacific Metals provide the opportunity to press on with further work to investigate the exciting prospectivity of the Normanby Island tenements. "We are delighted to be working with Sojitz and Pacific Metals to continue exploration at Sewa Bay, as we remain optimistic that the area has the potential to host a significant nickel laterite deposit," he said.

French Government Prepared To Prop Up New Caledonia Nickel Plant

\$220 million loan for Vale to help company deal with low commodity prices



Photo: Timkal

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WELLINGTON, New Zealand (Radio New Zealand International, Nov. 9, 2016) – The French government has decided to offer the Vale nickel plant in New Caledonia a \$US220 million loan for ten years to prop up its production. The subsidiary of the Brazilian mining concern Vale has been hit by the nickel price drop which triggered plans to either close or mothball the multi-billion US dollar plant in Goro. The French state has already committed itself to support the SLN plant in Noumea amid expectations that assistance may be extended to the Koniambo plant in the territory's north. The Vale plant has been dogged by cost over-runs and acid spillage which have prevented it from reaching the originally projected output. The other plants have also been incurring losses since the slump of commodity prices in recent years. New Caledonia has huge nickel ore reserves, with nickel accounting for the bulk of its exports.

Political Interference Distrupts Reopening Of Solomon Islands Gold Mine

Director of Customary Landowning Company says date pushed back by a year

WELLINGTON, New Zealand (Radio New Zealand International, Nov. 9, 2016) – A minority shareholder says political interference has set back the reopening of the Solomon Islands Gold Ridge gold mine. The director of the customary landowning company, Gold Ridge Community Investments, said it's been delayed by several months. Walton Naezon would not give any specifics but said the political interference was to do with opinions on how the mine should be run. Mr Naezon said a proposal to re-open the mine at the end of 2018 had been delivered to the government earlier this year. "But there are some political issues that have been arising in the last one to two months.

"That has delayed that, so our new timetable that after GR engineering services finalise their report we might lodge to the government and I am hopeful that the new timetable will be for the first quarter or second quarter of 2019." Mr Naezon said resurrecting the mine will cost almost \$US85 million. He said the majority shareholder, AXF Group which is Chinese-owned, has already raised more than two thirds of that cost. Mr Naezon said a separate Chinese engineering firm had completed a

design for a new mine site and this is being looked over by the mine's original designer, GR Engineering Services Ltd, from Australia.

NZ Activists take seabed miner to court

Simon Hartley, Otago Daily Times, 8 November 2016



The first of what is likely to be many challenges by environmentalists against a seabed mining proposal started in the Environment Court yesterday, with Kiwis Against Seabed Mining taking Trans Tasman Resources to task over redacted documents. Trans Tasman recently made its second application to the Environmental Protection Authority (EPA) to mine the South Taranaki Bight seabed for iron sands. Its first application last year was declined by the EPA, after Trans Tasman spent \$66million on research and development. However, the basis for the court challenge by KASM was prompted after Trans Tasman was successful in lobbying the EPA to redact large swathes of its second application from public scrutiny.

While KASM has been mobilising thousands of individuals to make submissions on the application, its chairman Phil McCabe said yesterday Taranaki iwi Ngati Ruanui and Talley's Fisheries had both made submissions supporting KASM's case in the Environment Court. Mr McCabe said the "hundreds of pages of redactions" included details of the content of the Bight's seabed sediment, the modelling, and detail, of the sediment plume which would be spread across the Bight from seabed mining, as well as economic data. "We were forced to take our case to the Environment Court because the redacted documents provide crucial information about the potential environmental impact of digging up 50 million tonnes of the seabed a year for 35 years,"

Mr McCabe said in a statement. Both Trans Tasman and separate seabed mining proposer Chatham Rock Phosphate had their respective first applications turned down by the EPA, meaning every step of the legal process becomes precedent-setting. Mr McCabe noted no information was redacted in either Trans Tasman or Chatham's first, unsuccessful, applications and saw no reason for that to have changed. He said the redacted documents could only be viewed if a party signed a confidentiality agreement, which severely restricted distribution and discussion of the content and put signatories at risk of civil and criminal penalties if they breached that agreement. The hearing is expected to last for two days. In mid-October, the EPA extended the public submission period by a month to November 14, following requests for more information. The extension meant the formal application would now begin no later than January 31.

PNG government still pushing dirty coal
 PNG Mine Watch, November 4, 2016



COAL FIRED POWER GENERATION – DEVELOPING THE NEW LOWEST COST ENERGY SOURCE IN PNG

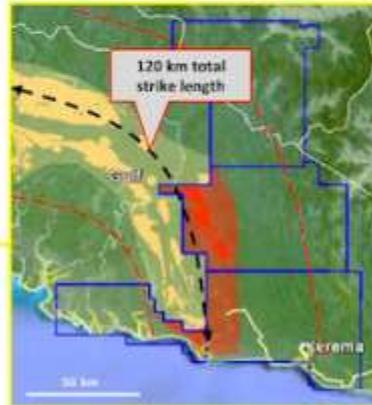
Mayur Energy is pioneering the development of a captive coal fired power industry in Papua New Guinea.

OPPORTUNITY SNAPSHOT

- Resource owner - Mayur Energy has all prospective coal tenure in PNG**
- Exclusive development rights available (construction, operator and offtake)**
- Provide cheapest domestic power to capture growth and replace high cost diesel generation**
- Use of clean technology, more environmentally friendly than neighbouring developed countries**



LOCATIONS



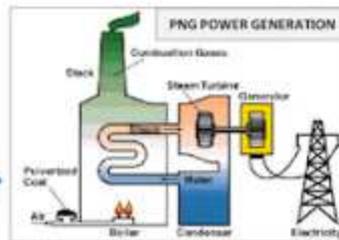
Above – deep shaft rivers; and 4.5m out-cropping coal seam in Gulf Province

Left – Mayur's coal tenure in Gulf Province – covering 120km strike close to rivers and coast.

Above – PNG's proposed economic corridors (blue) PNG Development Strategic Plan 2010- 2030

CAPTIVE COAL SUPPLY FOR POWER GENERATION

PNG COAL SUPPLY & TRANSPORTATION (RIVER / BARGE)



Demand from industry and urban centres:

- Port Moresby
- Lae/Madang
- Owen Stanley range (mining operations)
- Sell electricity to PNG Power

www.mayurresources.com

Concerns raised over Lae Coal Power Plant Proposal

Scott Waide, EMTV News, 3 November 2016

The Morobe Provincial Government says it is conducting its own due diligence tests on a National Government driven proposal to establish a coal-fired power plant in Lae City. It is understood dis-

ussions are currently underway with an unnamed foreign investor. However, PNG Power would not divulge other details of the discussions. When contacted today, the Morobe Governor, Kelly Naru, told EMTV that he was aware of the discussions but the Provincial Government had not agreed to any terms and conditions. "Discussions are ongoing and MPG is doing its own due diligence on concerns like environmental impacts and other issues." Pollution concerns have become the topic of discussion as environmental groups intensify a campaign to raise awareness over the impact a coal-fired power station would have on the local population and the environment.

"Is the best way to address PNG's electricity shortfalls building a coal fired power plant?" Nogat Coal PNG asked on Twitter. For the country of 8 million people it is a delicate balance. On the international front, Papua New Guinea has presented itself as a global member seriously concerned about climate change and alternative energy. But as other countries push for the reduction of coal use, PNG has initiated the discussions much to the dismay of international observers. On the home front, Papua New Guineans have had to contend with ongoing power outages as the inefficiencies in power generation continue largely unabated.

Telefomin locals recognise OTML's contribution

Post-Courier, November 03, 2016

BY JEFFREY ELAPA

THE people of Telefomin in West Sepik Province recognise the contributions of Ok Tedi Mining Limited to improve their lives. Telefomin MP, Solan Mirisim said the giant miner in neighbouring Kiunga district of Western Province had funded a lot of projects in his district through the tax credit scheme and other projects initiated through Ok Tedi Development Fund. He said despite Telefomin not in the mine impacted area it had received a lot of help from Ok Tedi as a preferred area. "Ok Tedi mine had also trained and employed his people at the Mt Fubilan mine while others had been employed by other mining companies overseas and elsewhere in Papua New Guinea. "About 40 per cent of the people of Telefomin and students who come out of Telefomin High School are employed by Ok Tedi," Mirisim said. Mr Mirisim also thanked Ok Tedi for assisting the Oksapmin High School infrastructure and K1 million worth of health equipment to the Telefomin hospital that is expected to be opened in April next year. OTML general manager of employee and external relations Musje Werror said Ok Tedi is a partner in the development of the country and believes in a health and educated society. He called on the people to support many of the mineral exploration taking place in the area.

Government to revamp mining, petroleum tax

Post-Courier, November 03, 2016

BY GORETHY KENNETH

THE Papua New Guinea Government will revamp the existing additional profits tax (APT) and extend its application across the entire mining and petroleum sector and not just designated gas projects. This revised APT will be at a single rate of 30 per cent and will trigger a single APT threshold rate of 15 per cent, according to the 2017 National Budget presented in Parliament on Tuesday by Treasury Minister Patrick Pruaitch. The Tax Review Committee and International Monetary Fund (IMF) report indicated that current APT design was below international standards and highly concessional. It was noted that the existing high APT threshold rates were the reason why APT was rarely collected in PNG. This measure is aimed at achieving progression in the tax system to ensure Papua New Guinea derives maximum benefits from its mining and petroleum wealth. The effect of this alignment will now restore the imposition of a 15 per cent Interest Withholding Tax in the mining and petroleum sector. This amendment simplifies and harmonises taxation in the mining and

petroleum sector with those in the non-resources sector, and introduces other minor technical amendments to rectify typographical errors and red references for ease of administration.

Wardens Hearings for Frieda River mine lease applications underway
PNG Mine Watch, 3 November 2016

National Gazette

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No. G658] PORT MORESBY, MONDAY, 12th SEPTEMBER [2016

Mining Act 1992

Mining Regulation 1992

APPLICATION FOR A TENEMENT

Application For: MINING LEASE.
Tenement No: ML 157.
Name of Applicant: Frieda River Ltd & Highlands Pacific Ltd.
Address for Notices: P.O. Box 1042, PORT MORESBY, National Capital District.
Period Sought: Forty (40) Years.
Nearest town of landmark (from published map): Frieda Airstrip.
Date of Application: 24th June, 2016.

For Boundary Coordinates: Follow Link:

<http://portal.mra.gov.pg/Map/searchLicenceNo> and see coordinates or email: tenementsinfo@mra.gov.pg to request coordinates or visit Mining Haus.

I certify that I have examined this application as required under Section 101 of the Act, that I am satisfied that the requirements of this section have been met and that I have complied with the requirements of Section 103(a) of the Act. The last dates on which objections may be lodged with the Registrar under Section 107(1) are as outlined below.

Warden's:—

<u>Hearing Times</u>	<u>Hearing Dates</u>	<u>Hearing Venues</u>	<u>Objection Dates</u>
03:00pm	01/11/2016	Amaromin Village, WSP	12/10/2016
11:00am	02/11/2016	Sokamin Village, WSP	13/10/2016
03:00pm	02/11/2016	Wameimin 2, WSP	13/10/2016
10:30am	03/11/2016	Wabia Village, WSP	14/10/2016
02:30pm	03/11/2016	Ok Isai Village, WSP	14/10/2016
11:00am	04/11/2016	Paupe Village, ESP	15/10/2016

The Wardens Hearings for the Mining Lease, Special Mining Lease, Leases for Mining Purposes and Mining Easements for the proposed Frieda River mine are currently underway in 11 villages in East and West Sepik Provinces. The villages are - Amaromin; Sokamin; Wameimin; Wabia; Ok Isai; Paupe; Wusok; Sowano; Sio; Pei; and, Kubkain. The relevant Tenement Nos. are ML 157; SML 9; ME 87, 88, 89, 90; and, LMP 94, 95, 96, 97, 98. The hearings started on 1st November and the last is scheduled for the 8th. The proposed mine is to be built and operated by the Chinese mining company, Guandong Rising Assets Management (GRAM).

The \$100bn gold mine and the West Papuans who say they are counting the cost

Grasberg mine in the Indonesian province has been a source of untold wealth for its owners, but local communities say it has brought poverty and oppression

Susan Schulman, The Guardian, 2 November 2016

In 1936, Dutch geologist Jean Jacques Dozy climbed the world's highest island peak: the forbidding Mount Carstensz, a snow-covered silver crag on what was then known as Dutch New Guinea. During the 4,800-metre ascent, Dozy noticed an unusual rock outcrop veined with green streaks. Samples he brought back confirmed exceptionally rich gold and copper deposits. Today, these remote, sharp-edged mountains are part of West Papua, Indonesia's largest province, and home to the

Grasberg mine, one of the biggest gold mines – and third largest copper mine – in the world. Majority-owned by the American mining firm Freeport McMoRan, Grasberg is now Indonesia’s biggest taxpayer, with reserves worth an estimated \$100bn (£80bn). But a recent fact-finding mission (by the Brisbane Archdiocese’s Catholic Justice and Peace Commission) described a “slow-motion genocide” taking place in West Papua, warning that its indigenous population is at risk of becoming “an anthropological museum exhibit of a bygone culture”.



The delta of West Papua’s Aikwa river, on Kamoro tribe land. Papuans claim tailing sediment from the mine has suffocated the fish and shrimp on which their diet and economy are based. All photographs: Susan Schulman



Since the Suharto dictatorship annexed the region in a 1969 UN referendum largely seen as a fixed land grab, an estimated 500,000 West Papuans have been killed in their fight for self-rule. Decades of military and police oppression, kidnapping and torture have created a long-standing culture of fear. Local and foreign journalists are routinely banned, detained, beaten and forced to face trumped-up charges. Undercover police regularly trail indigenous religious, social and political leaders. And children still in primary school have been jailed for taking part in demonstrations calling

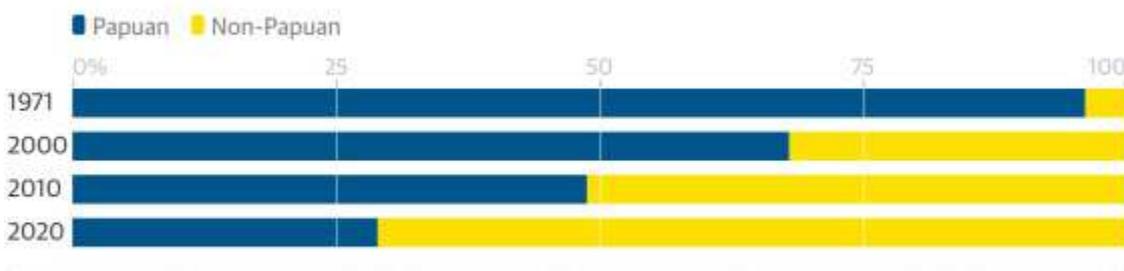
for independence from Indonesia. “There is no justice in this country,” whispered one indigenous villager on condition of anonymity, looking over his shoulder fearfully. “It is an island without law.”

Dozy had not set out to find gold in 1936; his goal was to scale the region’s highest glacial peak. But his discovery sparked the interest of Freeport Sulphur – later to become Freeport Minerals Company and then, through a 1981 merger with the McMoRan Oil and Gas Company, Freeport McMoRan – whose board of directors included the well-connected Godfrey Rockefeller (serving from 1931 until the early 1980s) and Henry Kissinger (1988-1995). Today, indigenous tribes such as the Kamoro and the Amungme claim their communities have been racked with poverty, disease, oppression and environmental degradation since the mine began operations in 1973. “We are a coastal people, and we depend on the environment,” says the Kamoro’s chief, Hironimus Urmani, in Tipuka, a lowland village down-river from the Grasberg mine. “Nature is a blessing from God, and we are known by the three Ss: *sago* [trees], *sampan* [canoes] and *sungai*[rivers]. But life is very difficult now.”

Urmani motions to the river opposite, languishing green and motionless. He claims that tailing sediment from the mine has raised the riverbed, suffocating the fish, oysters and shrimp on which the Kamoro diet and economy are traditionally based. A 2012 report from Earthworks and Mining Watch Canada asserts that mine waste from Grasberg has “buried over 166 square kilometres of formerly productive forest and wetlands, and fish have largely disappeared”. Although most Kamoro still try to eke out a living fishing and foraging for food, they struggle to find paid work, says Urmani. “We need to earn money. But now we face major competition from non-Papuan migrants.” Locals fear that the government’s controversial transmigration programme, which resettles Indonesians from high-density islands such as Java to low-population areas, is wiping out their population completely. Indigenous Melanesian Christians – they comprised 96% of the population in 1971 – now make up a 48% minority, with numbers expected to fall to 29% by 2020 if migration rates continue.

Ethnic Papuans will make up just 29% of the population by 2020

Demographic breakdown of the population in West Papua



Guardian graphic | Source: West Papuan Demographic Transition, Jim Elmslie

Clashes between the indigenous Christians – and migrant Indonesian Muslims – have also resulted in riots, fires and injuries. “Land has been taken away, directly by Freeport ... and indirectly, as the Indonesian settlers have appropriated it,” says Dr Agus Sumule, professor of agricultural socio-economics at the province’s University of Papua. “The stresses [on indigenous people] are intense,” says Sumule. “They have been very negatively impacted.” The Indonesian government signed over to Freeport the right to extract mineral wealth from the Grasberg site in West Papua in 1967. A 2002 report from the International Institute for Environment and Development (IIED) details that land agreements were not negotiated with the Amungme until 1974, a year after the mine opened, and with the Kamoro in 1997.

The compensation paid for Kamoro and Amungme land has been mainly in the form of communal benefits, such as the building of homes, schools and places of worship. The IIED report notes, “Perceptions of land rights and historic compensation claims are a continuing source of dissatisfaction and conflict in the mining area.” Recent census data shows Papua’s GDP per capita at \$3,510, compared to the Indonesian average of \$2,452. Yet Papua has the highest poverty rate in the country, nearly three times the national average. It also has the highest infant, child and maternal mortality rates in Indonesia, as well as the worst health indicators, and the poorest literacy rates. The scale of destitution is best observed from the highland Amungme village of Banti, just 20 miles down from the Grasberg mine.



The river Aikwa, near Banti, is turned thick and silver with the tailings from the mine. Here, artisanal miners pan the tailings for gold.

Estimates from Earthworks suggest that Freeport dumps as much as 200,000 tonnes of mine waste, known as tailings, directly into the Aikwa delta system every day. The practice has devastated the environment, according to Earthworks and locals, turning thousands of hectares of verdant forest and mangroves into wasteland and rendering turgid the once-crystal waters of the highlands. The tailings from the Grasberg mine are so rich with ore that Papuans walk for as long as a week to get here. Crowding the length of the river and the delta wasteland, thousands of unlicensed panners shore up small sections to slow the river’s flow and dig into the thick sediment on the side. Although some of these panners are located within Freeport’s official mining operations, they are not evicted or controlled in any way, they said. Instead, they claim they sell their findings to the police and military who work as security on the mine. (An anonymous Freeport source also confirmed this). One of the panners, Martine Wandango, 25, bends over her pail of water as she filters out rocks and searches for ore. “You can only survive with money, and you can only find money from gold,” says Martine, who followed her husband to the delta 15 years ago by walking 60 miles over the mountains from their remote highland village.

The Aikwa river, which used to provide the Kamoro people with the staples of their existence. “I work really hard as I want to give my children better lives, so they can go to school. But it isn’t enough, so she helps me here mining,” says Martine of her daughter, nine, who swings a gold pan in her hands. “On a good day, I can get three grammes, which I sell either to the police or [to buyers] in Timika.” A tiny village when Freeport arrived here 40 years ago, Timika is now a boom town dotted with bars, brothels, gold-processing shops and various military personnel. Under Indonesian law, Freeport is a designated “strategic industry”, which mandates that external security for the mine, its access roads and its pipelines all be provided exclusively by Indonesia’s security forces. Freeport has never been implicated in any human rights abuses allegedly committed by the Indonesian military in Papua. Freeport McMoRan, based in Phoenix, Arizona, did not respond to multiple

requests for comment. The company's website defends its method of disposal of tailings at Grasberg, managed by PT Freeport Indonesia (PTFI), an affiliate company: "PTFI's controlled riverine tailings management system, which has been approved by the Indonesian government, uses the un-navigable river system in the mountainous highlands near our mine to transport tailings to an engineered area in the lowlands where the tailings and other sediments are managed in a deposition area."



A 2009 report by the company says it utilises levees to contain tailings in the deposition area, and that the tailings management programme costs Freeport McMoRan \$15.5m (£12.7m) each year. According to the report, company monitoring of aquatic life in the rivers found that fish and shrimp were suitable for consumption, as regulated by Indonesian food standards, while water quality samples met Indonesian and US Environmental Protection Agency drinking water standards for dissolved metals. In a 2011 BBC report on alleged pollution in the area surrounding Grasberg, the company says that the tailings management method was chosen because studies showed the environmental impact caused by its waste material was reversible. Elsewhere on its website, the company says: "We are committed to respecting human rights. Our human rights policy requires us (and our contractors) to conduct business in a manner consistent with the Universal Declaration of Human Rights, and to align our human rights due diligence practices with the United Nations Guiding Principles on Business and Human Rights (UN Guiding Principles)."

The company also emphasises its work with indigenous people in West Papua. A 2015 Freeport McRoRan report on working towards sustainable development said: "PTFI has engaged with indigenous Papuan tribes for decades, including through numerous formal agreements to promote workforce skills training, health, education and basic infrastructure development ... In 2015, PTFI continued to evaluate the effectiveness of alternate options for Kamoro community members whose estuary transport routes are impacted by sedimentation associated with the controlled riverine tailings management system. Provision of smaller sized boats, in addition to 50 passenger vessels, for route flexibility as well as additional local economic development programmes were identified as additional mitigation measures during the year."

Back in the area surrounding the Grasberg mine, many Papuans, struggling for work, find themselves pulled into the bar and sex industries that cater to the miners, particularly around the highland village of Banti. Here brothels and bars line up side by side, allegedly with help from the Indonesian military, who are said to supply sex workers and alcohol, according to a Freeport source who wished to remain anonymous. Indigenous chiefs have watched as a newfound promiscuity has

brought sexually transmitted infections that have ravaged their communities. “Traditional Papuan culture forbids free sex, but alcohol makes our communities vulnerable,” says the Amungme chief, Martin Mangal. “And brothels make it easy to contract HIV.”

HIV rates in West Papua are of “epidemic” proportions, according to the UN, 15 times higher than anywhere else in Indonesia. Driven almost entirely by unsafe sex, HIV is also far more prevalent among indigenous Papuans. Yet the existence of only one hospital – built by Freeport – means that most people, particularly those in remote highland villages, don’t get the help they need. Late last year, the Indonesian president, Joko Widodo, claimed he was willing to work towards a “better Papua”: “I want to listen to the people’s voices.” However, human rights violations have actually increased since Widodo took power, according to Indonesia’s Commission for the Disappeared and Victims of Violence (Kontras), which has logged 1,200 incidents of harassment, beatings, torture and killings of Papuans by Indonesian security forces since his election in 2014.

The Indonesian government did not respond to multiple requests for comment. The country’s military has consistently denied any wrongdoing in Papua. Despite everything, there have been small glimmers of hope. This summer, Dutch human rights law firm Prakken D’Oliveira submitted a formal legal complaint against Indonesia to the UN Human Rights Council, accusing the government of “long-term, widespread and systematic human rights violations” and the “complete denial of the right to self-determination of the people of West-Papua”. Later this year, West Papua is expected to be granted full membership of the Melanesian Spearhead Group, an important sub-regional coalition of countries including Fiji, Vanuatu and Papua New Guinea. The Brisbane commission, which warned of the risk of genocide, is calling on Indonesia to allow Papua, once and for all, the right to self-determination. Yet some fear the opportunity for change in Papua is long gone. “Is healing even possible?” asked Professor Agus Sumule, shaking his head. “It could be too late.”

Energy companies eyeing Papua New Guinea expansion

Pacific Beat, ABC News, By Jarni Blakkarly, 21 Sep 2016

Major multinational oil and gas companies are looking to expand in Papua New Guinea, taking advantage of the country's low production costs, despite a global oversupply and slump in energy prices. American oil giant Exxon Mobil along with Australian company Oil Search last week announced coinciding purchases of 40 per cent shares in two offshore exploration permits in the Gulf of Papua. In a statement Oil Search managing director Peter Botten said the deepwater area roughly 150 kilometres south of Port Moresby had been identified for "significant gas potential". The move comes after Exxon Mobil successfully won a bidding war for Papua New Guinea-based InterOil, which owns stakes in significant gas fields in the Pacific Island nation. The \$2.5-billion offer topped previous bids from Oil Search and French company Total SA. "PNG is one of the few bright spots in the world oil and gas industry," said Erik Anderson, a senior partner at Garden Lawyers who works with the industry. "Since the 1990s they were drilling for oil but only finding gas, which was frustrating then, but it's a lot more desirable now," Mr Anderson said. "It's well located geographically, it's reasonably close to the Asian markets and it has got a lot of potential".

Investor confidence for major projects

Exxon Mobil's successful \$19-billion Southern Highlands LNG project, which began exporting to Asian markets in 2014, had boosted international investor confidence in the country's potential for major projects, Mr Anderson said. In 2013 the Papua New Guinea Government moved to establish the PNG Extractive Industries Transparency Initiative to increase scantily available public information on the industry. Martyn Namorong, is part of the initiative and works as national coordinator for the Papua New Guinea Resource Governance Coalition, said while there was now greater scrutiny than before, more progress needed to be made. "There needs to be a lot more openness from

state-owned entities who are involved in the oil and gas and mining sector, we need audited reports on their financials," Mr Namorong said.

"From the private companies we need timely reporting of their assessable income, so that people are able to calculate what benefits that should be expected [by the Government] in the fiscal year." Mr Namorong said there was lingering uncertainty over whether a sovereign wealth fund established by the Government to manage LNG income would go ahead because of the country's skyrocketing debt, caused in part by rock-bottom commodity prices. He added the flow-on jobs and economic benefits for Papua New Guineans was significantly lower in offshore rather than onshore projects. Papua New Guinea ranked 158 in the 2015 Human Development Index, the lowest in the Asia Pacific region.