

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

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Compilation:

Dr. Roland Seib, Hobrechtstr. 28, 64285 Darmstadt, Germany
<http://www.roland-seib.de/mining.html>

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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>

Editorial

Shameful act Rio Tinto

Post-Courier, July 1, 2016

THE task of nation building has been long and hard for the autonomous region of Bougainville since the Bougainville Peace Agreement was penned in 2001. Peace and normalcy has been restored in most parts of the region, though the autonomous Bougainville government's authority is not recognised in some parts of the island. The delay by the National Government in releasing grants guaranteed by law has not helped the autonomous government, in its strive to roll out basic services and infrastructure while creating a conducive environment for a referendum in 2019 to determine their future in Papua New Guinea as a distinct group of people. It was only over a month ago that the ABG President John Momis and Prime Minister Peter O'Neill agreed in a meeting in Port Moresby to work towards a referendum in 2019 on independence. Both parties set down June 15, 2019 as the date to work towards with Mr Momis saying that the autonomous government can now plan for the historical event and allocate the necessary funding and resources.

The call has now been made for the region to undertake a region-wide weapons disposal program, which is one of several prerequisites before the independence referendum can be conducted. There was an air of optimism following the ABG-National Government meeting until the mining giant Rio Tinto dropped a bombshell on Wednesday. It has decided to transfer its 53.8 per cent stake in Bougainville Copper Ltd (BCL) – the operator of the new defunct Panguna copper mine – to the trustee Equity Trustees Limited. The trustee will distribute the shares to both the National Government and the ABG, gifting the National Government a further 17.4 per cent of shares in the mining company. This, when added to its current holdings of 19 per cent, will take the Government's component in the mining company up to 36.4 per cent. The other 36.4 per cent of BCL owned by Rio will be given to the ABG. Mr Momis is furious at the decision of Rio Tinto to transfer its 53.8 per cent stake in the Bougainville Copper Limited (BCL).

It appears to have been done without consultation with the relevant stakeholders (including the ABG) and seems to be the inspiration behind the mining giant's refusal to accept responsibility for environmental and other damages by the Panguna copper mine in central Bougainville. We concur with the sentiments expressed by the ABG president and Bougainvilleans – Rio Tinto cannot deny that the operation of their copper mine between the 1960s and 1980s laid the seeds for the 1988-1998 Bougainville Crisis. The decision by the BCL to conveniently dispose of its shareholding in a copper mine, which has been at the centre of a conflict that claimed approximately 20,000 lives during the conflict period, speaks volumes about its commitment to the peace process and reconciliation in the region. It is shameful conduct from the mining conglomerate and their refusal to accept responsibility for the damages from the copper mine should be condemned by all Papua New Guineans and the international community.

Rio Tinto 'gives up' Bougainville Copper stake

Daniel Palmer, The Australian, 30 June 2016

Rio Tinto has exited its 53.8 per cent stake in the ASX-listed Bougainville Copper after a near two-year review of its position. The mining giant will transfer the holding to an independent trustee who will distribute the shares to both the Autonomous Bougainville Government (ABG) and the Papua New Guinea government. It will receive no compensation in return despite the stake being worth over \$40 million as of the close of trade yesterday. The decision by Rio will see the ABG receive a greater proportion of its stock, although both ABG and the PNG government will hold an equal share of 36.4 per cent once the stake is transferred. Bougainville Copper's prospects rest on the future of the controversial Panguna copper/gold mine in Papua New Guinea, which has been out of operation since it was central to the start of a 10-year civil war that broke out in 1989. The Panguna mine was a major producer in its heyday and is believed to still house a very significant 5.3 million tonnes of copper and 19.3 million ounces of gold. However, it could cost up to \$10 billion to restart production, while the hurdle of public support will be a challenge to clear.

Bougainville Copper's rights to the mine were stripped in 2014, which led to the Rio review and while it still hopes to reclaim the licence to develop the mine, there has been no significant change to the state of play. It does, however, retain an exploration licence. Rio's stake was worth \$92.5m when it first hinted at an exit, with market interest steadily fading since. "Our review looked at a broad range of options and by distributing our shares in this way we aim to provide landowners, those closest to the mine, and all the people of Bougainville a greater say in the future of Panguna," Rio Tinto Copper & Coal chief executive Chris Salisbury said. "The ultimate distribution of our shares also provides a platform for the ABG and PNG government to work together on future options for the resource." The deal will see Rio give six months' notice for termination of its management agreement with the ASX-listed group, while Bougainville Copper chairman Peter Taylor will

step aside, with immediate effect. Should either the PNG government or ABG not accept the stake offered by Rio within two months, it will be offered up for the other party to take control. The departure of Rio from the project echoes a similar decision to walk away from the Northern Dynasty Minerals project in Alaska in April 2014, as it gifted its stake in that controversial project to charitable enterprises.

Media Release

Bougainville Copper Limited shareholding

30 June 2016

Rio Tinto has today transferred its 53.8 per cent shareholding in Bougainville Copper Limited (BCL) to an independent trustee. Equity Trustees Limited will manage the distribution of these shares between the Autonomous Bougainville Government (ABG) for the benefit of all the Panguna landowners and the people of Bougainville, and the Independent State of Papua New Guinea (PNG). Under the trust deed, the ABG has the opportunity to receive 68 per cent of Rio Tinto's shareholding (which equates to 36.4 per cent of BCL's shares) from the independent trustee for no consideration and PNG is entitled to the remaining 32 per cent (which equates to 17.4 per cent of BCL's shares). The ABG and PNG will both hold an equal share in BCL of 36.4 per cent if the transfers are completed. This ensures both parties are equally involved in any consideration and decision-making around the future of the Panguna mine.

Rio Tinto Copper & Coal chief executive Chris Salisbury said "Our review looked at a broad range of options and by distributing our shares in this way we aim to provide landowners, those closest to the mine, and all the people of Bougainville a greater say in the future of Panguna. The ultimate distribution of our shares also provides a platform for the ABG and PNG Government to work together on future options for the resource." In accordance with the existing management agreement with BCL, Rio Tinto will today give the required six months' notice to terminate the arrangement. Although Rio Tinto will no longer hold any interest in BCL, Rio Tinto will continue to meet its obligations under the agreement during that period to ensure an orderly transition in the shareholdings of the company. BCL chairman Peter Taylor will resign with immediate effect but he will continue to be available to provide services to the board during this transition period.

Note to editors

The Trust Deed determines that should either beneficiary of the trust not apply for the transfer of the BCL shares attributable to them from the trustee within two months, then those shares will be made available to the other party.

Prime Minister O'Neill 'Committed to Resolving the PNGSDP Issue'

Papua New Guinea Today, 30 June 2016

Prime Minister Peter O'Neill reiterated today that the Government remains committed to ensuring that the assets of Papua New Guinea Sustainable Development Program are protected and safely delivered back to the people of Western province. "We have said all along that all assets under the care of PNGSDP, including the US\$1.3 billion long-term fund in Singapore, belong to the people of Western province and PNG. "We have begun a process to have these assets returned to their rightful owners, and to be utilized for their direct benefit. "Despite efforts by individuals with vested interest to frustrate and hinder the process we have undertaken, I am delighted that we have made a lot of progress. "The court cases in Singapore and the international arbitration tribunal which the people of Western province won, are part of this process."

The Prime Minister welcomed media reports that Sir Mekere Morauta was open to a speedier resolution outside of the court process. “I welcome this gesture and I am always available for talks. It is not my practice to shut the door on anyone. “Had Sir Mekere not walked out of the negotiations we started earlier on this issue, we would not be where we are today. “So he has to be genuine about this. “At the end of the day, we are talking about assets that belong to the people of Western province. They do not belong to me or Sir Mekere.” PM O’Neill said the Ok Tedi Mine was unique case, which the government had to pursue in this manner. “Sir Mekere created this complicated structure to deprive the people when he was Prime Minister. He must feel bound to help us undo it. Otherwise we will continue the fight in court and return these assets to the people,” the Prime Minister said.

Ramu Nickel mine set to re-open

Post-Courier, June 30, 2016

Ramu Nickel mine is set to re-commence operations at the Basamuk Refinery. This was announced by the Chief Inspector of Mines Lave Michael granting the permission pursuant to powers under the Mining (Safety) Act 1977. Mr Michael explained that permission had been granted for the company to operate High Pressure Acid Leach (HPAL) trains 1 and 2 only, while train 3 would still be closed as it was still under investigation. He said the permission was granted on June 28 on site, after the company satisfactorily met the Inspector’s rectification requirements on trains 1 and 2. Trains are process facilities where slurry from the mine is separated into different mineral products. The permission comes after more than 11 weeks of cessation of operations, following a fatal incident on April 12 that resulted in the death of a Chinese national employee, and the serious injuries of two local employees.

The company was ordered by the Mineral Resources Authority’s Mine Inspector, to cease operations following the incident. The incident resulted from serious unsafe and defective management systems that were prevalent on the HPAL trains. As part of the cessation order, Ramu Nickel was tasked to engage an internationally reputable third party investigator, to carry out a thorough investigation and provide a detailed report on the three trains. The report was submitted to the inspector on June 12 following which the inspector allowed the company to conduct remedial and repair works on the HPAL trains. Following this, inspectors visited the refinery on June 23 and conducted verification of the repair and remedial works which resulted in the granting of permission to operate HPAL trains 1 and 2. The Chief Inspector stated that it is government’s expectation that all mines operating in PNG do so safely and observe their regulatory responsibilities.

P’nyang to boost economy

The National, June 29th, 2016

THE P’nyang gas project in Western will represent an investment of more than US\$9 billion (K28 billion), Treasurer Patrick Pruaitch says. He said this would really help the country’s economy. “P’nyang represents an investment costing up to US\$10 billion (K31 billion), “This will give a tremendous boost to the Papua New Guinea economy at a time when it is under significant stress as a result of the sharp fall in commodity prices and a big drop in Government revenue. In approving P’nyang, the Government will take into consideration lessons we have learned from the development of the PNG LNG project, and be even more steadfast in ensuring positive outcomes and impacts are achieved on a local regional and national level,” he said.

Pruaitch made the comment on Monday when announcing that Prime Minister Peter O’Neill and Cabinet had approved plans to sell down 4.27 per cent of the Government equity in the PNG LNG

project to a group which included landowners. He said the implications of the 4.27 per cent equity sale and the final agreement would represent a win-win situation for all parties concerned. “The PNG project area landowners, along with their provincial governments, would benefit from the dividend stream from the ExxonMobil-managed LNG project, while the capital injection from the equity sale would directly support the Government’s 2016 budget,” he said. Pruaitch said he was keen to see LNG project royalties and development levies start to flow, along with settlement of the LNG equity sale, prior to any commencement of work on the P’nyang gas development at the PNG LNG project.

Frieda raising standard: MRA

The National, June 29th, 2016

THE Mineral Resources Authority says the formal process for the Frieda River project will become operational and be of world standard. Frieda River Limited (a PanAust Limited subsidiary) and Highlands Frieda Limited (a Highlands Pacific Limited subsidiary), are the tenement holders for the Frieda River Project in West Sepik. They last Friday registered with the Mineral Resources Authority (MRA) a special mining lease application, along with nine supporting tenement applications. MRA managing director Philip Samar said the project would be the first large-scale resource project in the Sepik provinces. He said the registration of the mining lease was a significant milestone for the companies involved and for the country. It will be known as tenement SML 9.

“Once in development, the project will increase national gross domestic product and export earnings and provide a long-term boost to Government revenues,” he said. “It will also generate benefit streams to landowners and host communities, as well as create employment and business development opportunities during project construction and operation.” The pre-production capital cost of the project is estimated at US\$3.6 billion (K11 billion). Following the granting of the lease, a construction period of up to four years is envisaged. Production is expected to commence in the early 2020s. “The average annual production estimates of metal in concentrate, from the 2.7 billion tonnes of mineralisation, is 175,000 tonnes of copper and 250,000 ounces of gold. “The initial stage of the mine is expected to be 17 years, with multiple pathways to further expand and extend the initial operation.”

Sir Mekere willing to work with State

The National, June 29th, 2016

PNG Sustainable Development Programme chairman Sir Mekere Morauta says there is room for peace between the company and the State after a bitter and expensive battle between the two parties. He said this yesterday after the PNGSDP annual results meeting in Port Moresby. “The State started the fight, not SDP,” Sir Mekere told The National. “We’re only defending it – that’s all we’re doing. “If we want to stop the fight, we can stop the fight tomorrow. “It’s up to the prime minister. “If he wants to talk to me, I’m open, but I have a duty to protect the company and I’ll continue.” Asked to comment on Sumkar MP Ken Fairweather’s recent call for PNGSDP and the State to put aside their differences so that PNGSDP could bail out PNG from its economic woes, Sir Mekere said: “The money is for the people of Western province. “Under the right conditions, we’ll consider the PM’s request. “I’ve set out four or five conditions – one of them is that we withdraw the court cases and another is for the PM to stop trying to take over PNGSDP. “I won’t make a commitment but I think there are certain things that must happen first before I sit down to talk.”

PNG Sustainable Development Program Ltd announces annual results

Post-Courier, June 29, 2016



PNG Sustainable Development Program Ltd today presented its Annual Report and Financial Statements to its Annual Results Meeting in Port Moresby. Chairman Sir Mekere Morauta said 2015 was a year of continuing consolidation of the new-look company following the State's illegal expropriation without compensation of its shareholding in Ok Tedi Mining Ltd in 2013. "Most importantly, PNGSDP has protected and preserved the funds held in the Long Term Fund," he said. "The fund remains stable at \$US1.3 billion, an excellent result given the loss of dividends following the expropriation and the continuing uncertainty in international markets. In kina terms, the fund increased from K3.4 billion to K3.9 billion. Sir Mekere said the stability of the Long Term Fund was a testament to the efforts by PNGSDP to preserve and protect it for future sustainable development spending in Western Province. The Long Term Fund is not only safe, it is well managed. The security of the Long Term Fund remains the company's first priority so that sustainable development spending can resume as soon as PNGSDP's independence, structure and rights and powers are confirmed by the legal proceedings it is engaged in.

The company is continuing to review its investment strategy to improve returns and manage risks, including maintaining its focus on divesting PNG assets to minimize exchange rate risk. PNG assets during the year were subject to deteriorating domestic market conditions, including a decline in the value of the kina, caused by waste and economic mismanagement. As a result, PNG assets contributed a foreign exchange loss of \$US13.5 million in 2015. The forex loss contributed to an overall reduction in net investment income from \$US16.1 million in 2014 to \$US4.6 million. PNGSDP increased its cost-cutting efforts during the year through a new Cost Management Sub-Committee, achieving a 48 percent reduction in expenses from \$US20.5 million in 2014 to \$US10.7 million in 2015. Administrative costs were reduced by 63 percent from \$US14.2 million in 2014 to \$US5.3 million.

Governance costs declined owing to a renegotiation of audit fees and targeted reduction in directors' travel and board-related costs. The board also elected not to increase directors' fees since taking a 10 percent reduction in 2013. Sir Mekere reaffirmed the company's commitment to resuming sustainable development in Western Province and was investigating a number of possible ways to do this as quickly as legally possible. Spending from the Long Term Fund cannot commence until mine closure, defined as the "permanent cessation of all mining and milling activities at or in association with Ok Tedi". That point has not been reached. In the meantime, court action against the expropriation is continuing in Papua New Guinea and Singapore. Although PNGSDP remains confident about the strength of its cases, it is unlikely that a decision will be made this year in either jurisdiction.

"More recently, as a private citizen, I have begun legal proceedings in the PNG Supreme Court seeking to have the Ok Tedi Tenth Supplemental Agreement Act 2013 declared unconstitutional and invalid," Sir Mekere said. "This is the Act through which the State expropriated PNGSDP's shareholding in the Ok Tedi mine, and purports to give the State the right to restructure the company into

a State entity. “The case is based on my belief that there are serious Constitutional flaws in the Act, and that it is harsh, oppressive and unjust. Although it is very early days in this case, it is possible that a decision could be reached this year.” Until the matters before the courts are clear, PNGSDP will continue to focus on protecting and preserving the money in the Long Term Fund so that it can once again be applied to social and economic development in Western Province. The company also remains committed to protecting itself from outside interference and attacks on its independence, governance and integrity.

LNG: Cabinet plans to sell 4.27pc equity

The National, June 28th, 2016

PRIME Minister Peter O’Neill and Cabinet have approved plans to sell down 4.27 per cent of the Government equity in the PNG LNG project to a group which includes landowners. Treasurer Patrick Pruaitch said the decision by the national executive council on June 6 would enable representatives appointed by the beneficiary group to start due diligence assessments on the purchase proposal. Pruaitch said he and O’Neill had been part of a team involved in negotiations in 2009 with the beneficiary group. “We are pleased that Cabinet has unanimously endorsed plans that are fully in accord with the 2009 Kokopo Umbrella Benefit Sharing Agreement,” Pruaitch said.

The beneficiary group involves five provincial governments – Hela, Southern Highlands, Central, Western and Gulf – and landowners in the LNG project areas. He said the beneficiary group had to raise their own funds for the LNG equity purchase. He said the late Hela Governor Anderson Agiru was involved in talks on the LNG equity sell down. Agiru later talked to the governors from Southern Highlands, Western, Gulf and Central on the deal. “This led to an agreement among the five governors on February 19 when they signed a joint communique undertaking to work together to pursue benefits owing to their people under the UBSA, including the acquisition of the 4.27 per cent LNG equity option,” Pruaitch said. “This is in addition to the 2 per cent equity provided for under the Oil and Gas Act.”

Frieda mine to generate billions

Post-Courier, June 28, 2016

BY GORETHY KENNETH

ONE of Papua New Guinea’s major mining projects will generate more than PGK39 billion and increase real income by PGK11.8 billion once it starts. The Frieda River Project in East Sepik and West Sepik Provinces will generate PNG’s real GDP by a cumulative total to the year 2040 of PGK39 billion and increase real income by PGK11.8 billion. For the West and East Sepik Provinces, the Project would increase real GDP by a cumulative total of PGK36 billion and increase real income by PGK5.2 billion. Last week, the Government officially announced Frieda River Limited (a subsidiary of PanAust Limited) and Highlands Frieda Limited (a subsidiary of Highlands Pacific Limited), the tenement holders for the Frieda River Project in East Sepik and West Sepik Provinces, officially registered a Special Mining Lease (SML) application, along with 9 supporting tenement applications, with the MRA, Papua New Guinea’s regulatory authority for mining last week. PanAust has devoted over 235,000 man-hours and invested US\$65 million to advance the Project. This has been achieved with no lost time injuries, an excellent outcome for a Project that is located in a remote area with limited access.

Mineral Resource Authority boss Philip Samar in a statement said last Friday that the commencement of the formal process for the Frieda River Project to become an operational mine of world standard. "The project will be the first major, large-scale resource project in the Sepik provinces of

Sandaun and East Sepik, a least-developed area of Papua New Guinea. Registration of the SML is a significant milestone for the companies involved and for Papua New Guinea, coming at a time of cyclical downturn in the mining sector. The lease will be known as tenement SML 9. This application provides confidence for the future of the mining industry, which has long been the mainstay of PNG's economy," he said. "Once in development, the project will increase national gross domestic product and export earnings and provide a long term boost to government revenues. It will also generate benefit streams to landowners and host communities, as well as create new employment and business development opportunities during project construction and operation.

Joint venture prepares for mining

The National, June 27th, 2016

By Gedion Timothy

THE Wafi-Golpu Joint Ventures, since the announcement of the findings of its feasibility study, is focusing on preparing an environment impact statement and a special mining lease application. General manager Sustainability and External Relations David Wissink said the impact statement and the mining lease application would be submitted to the Government after the approval of the Newcrest and Harmony boards before the start of the next phase of development. "The proposed mine development is underground, targeting the rich Golpu copper-gold porphyry ore body. Feasibility study investigated the establishment of two block caves – block cave one BC1 and a deeper block cave two BC2 – along with associated infrastructure, processing plant, roads, electricity, water management and port facilities," Wissink said

Frieda files lease application

The National, June 27th, 2016

A SPECIAL mining lease application for the Frieda River copper-gold project was registered last Friday with the Mineral Resources Authority, according to PanAust Limited. The application followed the completion of the project's feasibility study which was announced on May 19. The lodgement satisfied a condition of key exploration licence (EL58) that an application for an special mining lease (SML) in respect of the project be made on or before Thursday. The SML application comprises a proposal for development, which incorporated feasibility study report and further supporting documents. They include an employment and training plan, a land ownership study and a business development, supply and procurement plan.

PanAust managing director Dr Fred Hess, said the lodgment of the SML application represented a crucial milestone in the pursuit of organic growth for the company. "Since taking control of the project in 2014, PanAust has committed significant resources to complete the feasibility study and maintaining a site presence while engaging extensively with the Government of Papua New Guinea and host communities," Hess said. PanAust has devoted over 235,000 man-hours and invested US\$65 million (K195 million) to advance the project. "This has been achieved with no lost time injuries, an excellent outcome for a Project that is located in a remote area with limited access," Hess said. "We look forward to working with the PNG government, landowners and host communities to further advance the project for the benefit of all stakeholders."

Benefits from LNG

The National, June 24th, 2016

BECAUSE of the on-going public debate regarding the various benefits and revenue derived from the PNG LNG project, The National asked the managing director of the Kumul Petroleum Holdings

Limited Wapu Sonk, to explain what the benefits are, who are the beneficiaries and how the benefits are distributed. Below is what he told Acting Business Editor SHIRLEY MAULUDU.

THERE has been a lot of questions on this and it is important that we understand the different benefits that are derived from such a project like the PNG LNG project. The revenue streams and benefits are prescribed in law already and developers follow that. The proceeds from the LNG project comes in the form of royalty, development levies, project equity and tax. The other forms of benefits to provincial governments and landowners are the memorandum of agreement, ministerial commitments, business development grants, high impact projects, infrastructure development grants etc. These are Government commitments and not prescribe by law, hence these benefits vary from project to project as this is a negotiated outcome through the project development forums. If we look at the royalty, development levies, tax and project equity, here is how things work. The royalty and development levies are calculated on wellhead value of the gas and 2 per cent is currently what the Oil and Gas Act said would be applicable for all petroleum projects.

The beneficiaries for the royalty are the landowners and the beneficiaries for development levies are the provincial governments of the project affected areas. There is a legally prescribed formula to calculate the amount and payment is supposed to be paid by the developer to the Government through the Department of Petroleum and Energy. In the case of the PNG LNG project, the beneficiary clans were not identified. So the Government had asked ExxonMobil to create a Trust Account in the Bank of Papua New Guinea which ExxonMobil as the operator of the project deposits the money. So far, that has been the case and the money is in BPNG. This money cannot be released or used for other purposes other than its intended purposes. Otherwise, the project developers and most importantly the financiers of PNG LNG project would be very concerned given that it becomes a significant project risk. The other benefit and the main one is tax. In the PNG LNG project, a 30 per cent tax has been agreed to in the Gas Agreement. The tax revenue is supposed to be paid to the Internal Revenue Commission. And again, that is as per the Tax Act.

The joint venture partners in the project do their own tax assessment because the PNG LNG project is an unincorporated entity and pay tax to the IRC. So far, all joint venture partners have paid. But because of the low oil price last year and this year, the tax revenue to the State from the project had been very minimal to none. This would improve as the price recovers. The other factor is that the project was funded on a 70 per cent project finance debt and 30 per cent equity from partners. Hence the project financiers take priority in the revenue distribution before others. Apart from the price and the debt repayment affecting the tax revenue to state, the other reason is that in the Gas Agreement negotiations, the State allowed for "accelerated depreciation". It means that when the joint venture partners assess their tax positions, they also depreciate the project assets at a higher rate than normal, hence less tax to the Government. These three issues are the key reasons why the Government has not realised the full value of the PNG LNG project to date. But with the oil and LNG price recovering, debt repayment going on and asset being depreciated over time, PNG will realise the value in the next few years.

The other revenue stream for PNG is the 16.6 per cent equity in the project, which KPHL manages for the State and people of PNG. KPHL is a joint venture partner in the project and our revenue from the project is distributed to us after deductions for royalty, development levy, project debt repayments, project capital expenditure and operational expenditure deductions and tax to the Government. This is the same for all the project partners. Each joint venture partner has their nominated account where the distributions are paid to. But for KPHL, our nominated account is in Singapore. The reason is that KPHL is an oil and gas company that transacts in US dollar which has cash calls in USD. And to pay for our commitments not only in PNG LNG project but other assets operated by Oil Search and others, we need to have a USD account and ability to pay in the currency of trade in the business we are in at the moment.

The PNG-based operations are funded in Kina and also dividend payments to the State. Hence we would bring in USD into the country. And we have done this since 2014. The question of how much revenue we earn per shipment is not an easy question to answer because every shipment is different and there are various variables mainly because the LNG sales contracts are different types with different buyers. Some are delivery ex-ship (DES), some are freight on board (FOB) and they fetch different prices. The volumes we sell on the spot market also fetches different prices depending on what the world price market is on the day of the trade. What has been fixed for PNG LNG project is the price formula which is used to calculate the LNG price with our long term buyers. Each long-term buyer also fixed the volume they want to receive as DES and FOB. The variable in the formula is oil price so at the end of the day, the biggest impact on revenue we generate is determined by movement of oil price as our long-term LNG sales contracts have been fixed to a formula that is linked to oil price which is usually known as the “JCC Linked LNG Price”. JCC is the Japanese customs-cleared crude, a commonly used index for long term LNG contracts.

New hotel expected to open in Western

The National, June 24th, 2016

THE new Cassowary Hotel in Kiunga, Western is expected to be opened in January, according to the Ok Tedi Development Foundation. Chief executive officer Ian Middleton said the construction began following the arrival of the 99 modules and associated construction materials last month. The hotel project is valued at K30 million and will generate a minimum annual 8 per cent return on the K27 million investment by the CMCA Trusts and Women’s Associations. Middleton said the 40-room hotel was shaping up to be the most architecturally iconic building in Kiunga and the province. It is the eighth major trust investment project of the Community Mine Continuation Agreement communities. It is expected to set a new standard in accommodation and related services, filling a gap in higher end business traveller market and be a catalyst to encourage tourism. It is also expected to provide employment and spin-off business opportunities for Western. The Cassowary Hotel is a joint venture between the CMCA and Steamships Trading Company. It is supervised by their property development arm – the Pacific Palms Properties – and managed by their hospitality arm – the Coral Sea Hotels chain.

The hotel is being built by the construction firm The George Group from Sydney, Australia. Coral Sea Hotels general manager Glen Murphy is looking forward to a successfully managed hotel once completed. “Coral Sea Hotels are absolutely dedicated to making this project a success. We’re very proud to be selected as the company to run this hotel project and we promise you that we’ll give you a successful hotel,” he said. He urged locals to produce a lot of garden food, rice and fruit which the hotel could buy from them. OTDF board chairman Musje Werror said the dream to have a hotel project like the Cassowary started in 2001. It was when the CMCA communities negotiated with the Government and Ok Tedi to secure investment funds among other benefits and ensure the mine could continue operating.

Assess environmental damages, Landowners tell firm

Post-Courier, June 24, 2016

BY JOAN BAILEY

LANDOWNERS from Kusi village in Waria local level government, Bulolo District have appealed to Pacific Niugini Minerals and MGL Limited to sort out the environmental damage caused to their environment. Chairman Simon James and his assistant Sakixy Kabre told Post-Courier that the two companies started exploration drilling for minerals at their village in 2010. They said the exploration work progressed really well with the developers excited with the results where evidence of gold,

copper and silver was discovered only seven metres deep into the earth and of high grade. “Due to the fact that we lack government services, we offered our land that is rich in minerals to the developers to be extracted and bring in developments into our villages in order to increase our living standard,” Mr James said.

However, Mr James said they were shocked that the PNM and MGL Limited just left in 2014 without any proper explanation given or conversation held with landowners on their reasons to cease work. He said until now, they are still awaiting the response from the two explorers on the future plan of the Kusi prospect and also environmental damage caused. Mr James outlined the environmental damage included deep trenches cut into the earth of two to three kilometres, several drill beds created, large surface clearance where forest are cleared chasing away all forest habitat, landslides, destruction of kawiwi (betelnut) plantation, bringing water supply from the mountains to their campsite doesn't have a proper drain and it flows free so its continuous flowing runs into food gardens causing soil erosion. Mr James appealed to PNM and MGL Limited to immediately consult the Kusi prospecting area landowners and solve the issue with them.

News Release

Barrick Once Again Ignores Human Rights Victims – Peaceful Protest Planned at Porgera Mine in Papua New Guinea

MiningwatchCanada, 23 June 2016

(Ottawa) In the highlands of Papua New Guinea, a grassroots human rights group living in the shadow of one of the world's largest gold mines is once again raising the alarm on behalf of human rights victims of the mine. “Akali Tange Association Inc (ATA) has submitted 256 names of victims who have been shot death (sic), injured and raped by Barrick PJV Security Personnel,” reads a communiqué from ATA. ATA submitted the names to the mine's grievance office in September 2015, and received a claims number, but there has been no progress on the claims. A peaceful protest to deliver a petition to the mine site is planned for June 24. After years of denial of excessive use of force by mine security and police guarding the Porgera Joint Venture mine, Barrick ran a compensation program at the mine site between 2012-2014 that eventually provided 119 victims of rape and gang rape by mine security with financial compensation in return for signing legal waivers. “These women did not enjoy procedural fairness in the Barrick mechanism and did not have effective independent legal counsel,” says Catherine Coumans of MiningWatch Canada, “they are now protesting the compensation they received as it is reportedly a quarter of what 11 rape victims in Porgera received who did benefit from international independent legal counsel.”

Furthermore, ATA and international observers, including MiningWatch, are aware of women who should have received compensation through Barrick's mechanism and were either not aware of the now closed program or were wrongly turned away. There also have been further incidents of violent rape since the compensation mechanism closed down. Additionally, the program Barrick put in place dealt narrowly with victims of sexual violence. The mine refers other victims of excess use of force by mine security, including those who have been maimed, and family members of those who have lost their lives, to a “grievance office” at the mine site. ATA notes that this office is not responding to claims the organization has submitted. “Barrick cannot now return to its previous policy of denial in regard to these serious cases of human rights abuses by mine security and police guarding the mine,” says Coumans, “nor can Barrick wash its hands of these victims who were not included, or passed over, in the compensation mechanism for rape victims. The responsibility to provide remedy to victims of the mine's operations is not restricted to those who pose the greatest legal risk to the company.”

See also: Letter from Akali Tange Association to Greg Walker, Managing Director of Barrick Gold subsidiary Barrick Niugini Limited, June 17, 2016: [Letter from Akali Tange Association to the Managing Director of Barrick Niugini Limited, June 17, 2016](#)

“World Class” Ramu Nickel Sacks Union Leader and All Union Members

Bismarck Ramu Group via PNG Mine Watch, June 23, 2016



MCC's tax free Ramu mine headquarters in Madang

Ramu Nickel (MCC) Management continue with their oppressive abuse of Papua New Guinea workers. It appears if you speak out – and call the Chinese out for what they are and what they do – you have to go. Justine Mende, the President of the Ramu Nico Allied Workers Union was recently sacked for - well for standing up for the rights of PNG workers and trying to insure they are treated with a bit more respect than they are getting from the Chinese management. Obviously the Chinese are quite nervous about a person like Justine for after sacking him the MCC “management” began circulating a memo WITH HIS PHOTO letting people know that Justine is restricted to enter MCC’s operational and refinery sites and is to be arrested if he is found on those sites. They said he would be trespassing. What the Chinese are really nervous about is that Justine continue to inform the workers of their rights and how they do not have to be take the nonsense from the kongs nor continually be disrespected by them. The workers are beginning to take heed of that message and the Chinese are rightfully worried.

So worried are the Chinese they have sacked MORE THAN 50 PNG employees since the High Pressure Acid Leach Auto Clave at Basamuk on 12 April. In addition to the sacking of 50 PNG employees the MCC “management” has terminated ALL members of the Allied Workers Union. And why is no one looking into this. Well we know don’t we. They’ve all been bought off and Jim Kas is too busy getting drunk with his lackeys at the Star International Hotel. Justine is taking the matter to Court as well he should. The Chinese have no concept of what that means. Keep it going Justine. Hopefully people in Madang will show the same spirit as the University Students and start standing up for whats right and not accepting the nonsense that the Chinese continue to deal out. Stay tuned folks.

PNG a global hot spot for toxic tailings dumping

PNG Mine Watch, June 22, 2016

Metal mining companies dump 180 Million Tons of toxic tailings into water bodies every year

WHY TAILINGS ARE TOXIC
Naturally occurring elements in crushed rock become toxic when exposed from mining:

- arsenic
- lead
- mercury

Additives used in processing:

- petroleum byproducts
- sulfuric acid
- cyanide

The amount of tailings dumped into rivers, lakes, and oceans could fill **1.3 million** shipping containers every year.

WHAT'S AT STAKE

- It's cheap for companies to dump waste into oceans, rivers and lakes. But the ecological costs are high.
- Human health is at risk as metals and chemicals increase in concentration as they travel up the food chain.
- Contamination can spread from rivers to floodplains and affect grazing livestock.
- Mine wastes originally dumped into rivers have contaminated home drinking water.
- Marine life dosed with toxic heavy metals and mining chemicals and smothered by murkiness from suspended particles cutting off the supply of water and oxygen.
- Clogged river channels are forced to change course, and tailings have smothered and flooded vast areas of wetlands and forests.

7 HOT SPOTS FOR TAILINGS DUMPING

- Alaska:** Lower State Lake, Frying Pan Lake
- Canadian lakes**
- Norwegian fjords**
- Turkey:** Black Sea
- Indonesia:** Senuku Bay, Oonoma and Akiwajawa
- Papua New Guinea:** Luise Harbor, Pigpat Bay, Fly River, Agga River, Bismarck Bay
- Chile**

WHO DUMPS WASTE INTO NATURAL WATER BODIES?

- Barrick Gold (Canada)
- BHP Billiton (Australia/UK)
- Freeport-McMoRan Copper and Gold (USA)
- Goldcorp (Canada)
- Newcrest Mining (Australia)
- Newmont Mining (USA)
- Rio Tinto (UK/Australia)
- Teck (Canada)
- Vale (Brazil)
- Highlands Pacific (Australia)
- PeruWest (Australia)

86% The top four mines that dump tailings into bodies of water account for 86% of the tailings dumped into bodies of water each year:

1. Freeport McMoRan and Rio Tinto's Grasberg mine in West Papua, Indonesia
2. Newmont Sumitomo Mining's Batu Hijau mine in Indonesia
3. Ok Tedi Mining Ltd.'s mine in Papua New Guinea
4. Cliff's Mining Company's Wabush/Scudly mine in Labrador, Canada

EARTHWORKS
earthworksmining.com

Source: "Toxic Tailings" 2014 report, Earthworks and MineWatch Canada

Earthworks

In some parts of the world, mining companies directly dump this mine waste into rivers, lakes and oceans. In fact, mining companies are dumping more than 180 million tonnes of hazardous mine

waste each year into the world's waterways, threatening vital bodies of water with toxic heavy metals and other chemicals poisonous to humans and wildlife.

This [Tailings Infographic](#) [pdf file] shows the extent of the problem:

https://ramumine.files.wordpress.com/2016/06/tailings_infographic.pdf

Court sets date for Sir Mek's constitutional challenge

Post-Courier, June 21, 2016



The Supreme Court has set July 1, as the date for a hearing of an application by Sir Mekere Morauta to challenge the constitutionality of the alleged O'Neill Government's illegal expropriation of PNG Sustainable Development Program Ltd's 63.4 percent shareholding in Ok Tedi Mining Ltd. Sir Mekere is seeking standing to bring the challenge as a private citizen – former Prime Minister and senior public servant, businessman, economist, chairman of PNGSDP and former chairman of OTML. He announced in January 2016 that he had begun new legal proceedings seeking to have the Mining (Ok Tedi Tenth Supplemental Agreement) Act 2013 declared unconstitutional and invalid. Should the Court declare that Sir Mekere has standing, a full trial of the substantive issues will follow. Sir Mekere believes serious Constitutional issues arise from the fact that the Government through the Parliament illegally expropriated SDP's 63.4 percent shareholding in Ok Tedi Mining Ltd. He said the decision to proceed with the constitutional case came after the State had repeatedly failed to agree to a fair and legally binding negotiated settlement of the dispute, and the International Court for the Settlement of Investment Disputes found it did not have jurisdiction.

Sir Mekere said his decision to proceed with the case was based on his rights as a citizen to ensure that the laws of Papua New Guinea are fair and reasonable and comply with the Constitution. Sir Mekere believes the Tenth Supplemental Agreement Act offends a number of sections of the Constitution, especially Sections 38, 39 and 41, which deal primarily with legal rights and freedoms, whether laws are reasonable and justified or whether they are harsh, oppressive and unwarranted. He also maintains that it is inconsistent with the UN Universal Declaration of Human Rights, which states that "everyone has the right to own property alone as well as in association with others" and that "no one shall be arbitrarily deprived of his property". The Constitution states that a PNG court may take this into account in deciding the constitutional validity of laws.

Sir Mekere is seeking a number of declarations by the Supreme Court, including that the Act is unconstitutional, the return of PNGSDP's 63.4 percent shareholding, the reinstatement of the former board of Ok Tedi Mining Limited, the immediate payment of outstanding dividends to PNGSDP, the cessation of attempts to restructure PNGSDP into a State entity and the payment of damages, with interest. Should the Court refuse to grant standing this will end the proceeding. Other parties in the proceeding are the Minister for Justice and Attorney-General, Ano Pala, the Speaker, Theodore Zurenuoc, Prime Minister Peter O'Neill, the National Executive Council and the State. The constitutional challenge is in addition to other cases between PNGSDP and the State in Papua New Guinea and Singapore.

MCC termination of national employees questioned

Bismarck Ramu Group via PNG Mine Watch, June 21, 2016



The termination of 51 National employees (mostly union members) by the Ramu NiCo (MCC) Management on 2nd, May 2016 and the laying – off of another 289 employees is severely questionable and cannot be justified. Before understanding the above statement, let us rewind back to a certain incident that sparked the mass termination of National Employees. On 12th April 2016 the incident at the High Pressure Acid Leach (HPAL) AutoClave at Basamuk Refinery resulted in the death of a Chinese National and two national employees being injured. Following the incident, on 15th April, 2016 the Mineral Resource Authority (MRA) issued specific directives to cease operations in the HPAL areas and withdraw persons engaged in or being in those areas. The Ramu NiCo (MCC) Management claimed that due to orders from the MRA and FINANCIAL INSTABILITY (where did that come from?) the company would;

- Retain a few employees
- Lay-Off a few Employees; and
- Terminate employees

So, they proceeded with the termination of 51 National Employees, 34 of whom were members of the Ramu NiCo Allied Workers Union from both the Refinery at Basamuk and operations at Kurumbukari.

The Ramu NiCo Allied Workers union established on August 14th, 2013 under the Industrial Organizations Act had been vocal on many neglected issues of the national employees. For instance, in 2013, National Employees raised concerns and took action in protest of the poor working condition with low pay and inhuman treatment by the Chinese employers. A conference was then held to address these issues and the outcome of the conference was the signing of the Ramu Nickel Project Operations Industrial Award 2014-2017 on 15th March 2014. Fast-forward to 2016, on January 7th, on that day the Union presented the MCC Management a 11 point petition on employees wellbeing and safety issues and gave the management 21 days to respond. The management responded to the 11-point petition on 20th January only to withdraw the original response the very next day (what a load of crap) and called for a meeting with the union to provide a detail response to the petition.

This nonsense by the MCC Management forced national employees to stop work. They then waited for the Department of Labour and Industrial Relations (DIRL) for necessary instrument for a Compulsory Conference, which was released by Herman Joseph Gire of DIRL. However, the Compulso-

ry Conference held from 29th January to 8th March 2016 was a total a waste of time, according to the union executive. The union could not get across their resolutions and the draft Memorandum of Agreement (MOA) prepared by the Mineral Resource Authority (MRA) of the Compulsory Conference, which they unanimously disagree to and had requested for a Industrial Tribunal. This was simply because the conference chairman Mr Philip Wori, was conveniently unavailable. (Gee-wonder why) Note here that Mr Wori was suppose to advise the union of their next step and give them a copy of his report. Whilst waiting for the conference chairman to respond and make himself available to assist the union the Union Executive were terminated along with 34 union members. This Union who represents the national employee at Ramu Nickel since conception had been raising serious concerns but the management always brushes their concerns aside.



Chinese workers at the Basamuk processing site

The Chinese seem to care more about their machines then the person(s) operating them. The Ramu Nickel Project Operations Industrial Award 2014-2017 signed on 15th March 2014 plays the role of a rubber stamp as the company failed to honour its commitment. Whenever, issues rises regarding the Industrial Award 2014 to 2017, the management always refers them to the review, which is due on 15 December 2016. What good is a review when you cannot honour your current deal? The bullshit review will only act as a rubber stamp, to make the Ramu NiCo management look good, but everyone knows they live up to the MCC acronym – MCC – MORE CHINESE CRIMINAL, who has no respect for the national employees and the constitution of our country. The mass termination of national employees by the Ramu NiCo MUST be seen for what it truly is.

Papua LNG to create more jobs: PM

Post-Courier, June 19, 2016

PRIME Minister, Peter O’Neill says the Papua LNG project will deliver 13,000 new jobs and be undertaken in a manner that uses the latest technology to ensure safety and environmental standards. The Prime Minister made the comments following a meeting with the Total’s Chief Executive Officer (CEO) and Chairman of the Board of Directors, Patrick Pouyanné, in Paris last week. “Staff are already moving from France to Papua New Guinea and local workers are being employed in preparation for the construction phase of the Papua LNG project. “The local workers will be not only in Port Moresby, but there will also be thousands employed in Gulf Province.” Mr O’Neill had expressed his appreciation for the personal interest the CEO of the French energy giant had shown in PNG. “Patrick Pouyanné has taken the time on personal vacation to travel around Papua New

Guinea and has a genuine interest in our people and our culture. “He has seen the diversity of the nation and encourages Total’s staff to get out of their offices and travel around our country and meet our people.” The meeting with Mr Pouyanné was also attended by Minister for Petroleum and Energy-Ben Micah, Gulf Governor Havila Kavov, and senior executives of Total management.

Fact Sheet

Precautionary Approach Needed for Deep-Sea Mining

Science-based regulations can protect underwater ecosystems in areas beyond national jurisdiction
The Pew Charitable Trusts, June 17, 2016



Photo: JAMSTEC

Overview

Over the past half-century, ocean scientists have begun to describe the least-known places on Earth: the deep realms of the international seabed. Aided by new technologies, the pace of the seabed inventory has accelerated in recent years. Scientists have traced vast systems of underwater hills, mountains, canyons, and plains. They have also found features uniquely marine, from millions of potato-size rocks carpeting the Pacific Ocean abyss to hydrothermal vents gushing mineral-rich solutions that sustain life dependent on chemical energy, rather than sunlight.

Most of the international seabed remains uncharted, as 55 percent of the world’s ocean floor lies beyond any national jurisdiction. But many minerals crucial to modern economies—such as copper, magnesium, nickel, zinc, and the rare earth elements—can be found in these areas in richer concentrations than are available on land. Seabed mining beyond national jurisdiction can take place only under contract with the International Seabed Authority (ISA), which was established by the United Nations Convention on the Law of the Sea.

The ISA, with its 167 Member States, has awarded 24 exploration contracts to Members or their designees to survey possible mining areas and submit their findings. Contractors operate under ISA exploration regulations. No contracts for commercial-scale exploitation can be awarded until the ISA approves exploitation regulations, which will guide all potential extraction through mining. Pew established its seabed mining project in 2016 to ensure that international mining regulations protect the structure and functioning of deep-sea ecosystems. Large, ecologically important areas of the seabed should be closed to mineral extraction, and precautionary standards must be adopted by the ISA to minimize environmental damage where mining does occur.

Mineral resources and mining technologies

Three types of deep-sea deposits draw potential commercial interest: polymetallic nodules (the potato-size rocks that dot the Pacific floor), hydrothermal deposits (products of the superheated vents), and cobalt-rich crusts (the outermost layer of underwater mountains, or seamounts). The extent of most of those rich sites is not yet known, however, nor can experts make reliable estimates of the expenses incurred by the new robotic technologies that would do the work. One well-regarded study predicts that a US\$12 billion industry will extract 10 percent of the world's minerals from the ocean floor by 2030,¹ but doubters abound.

The ISA has awarded most of its exploration contracts for investigations of the polymetallic nodules of the Clarion-Clipperton Fracture Zone, a Pacific Ocean plain roughly the size of Europe² with an average depth of about 4,000 meters. Formed over millions of years, the nodules contain rich deposits of manganese, nickel, cobalt, and copper.³ Harvesting the nodules would involve removing the top layer of the ocean floor, sending the material up a giant tube to a mother ship, and returning the commercially worthless portions back to the bottom—roughly a 10-kilometre (6-mile) round trip. Like the nodules, cobalt-rich crusts are formed over long periods. One formation has been dated at 60 million years old.⁴ In addition to cobalt, the crusts can contain titanium, cerium, nickel, and zirconium, all minerals especially valuable to high-tech industries.⁵ Although removing a relatively thin layer from the surface of seamounts sounds straightforward, it is likely to be technologically challenging in practice. More importantly, this lost surface layer destroys a complex ecosystem composed of attached sponges, corals, and other marine life.

Unlike the nodules and crusts, hydrothermal deposits occupy relatively small areas of the seabed. These deposits can be geologically young and their origins ephemeral. Technically labelled seafloor massive sulphide deposits, the minerals found in hydrothermal vent zones are created when hot fluids rise from underneath the seabed and meet the cold water of the ocean. The minerals that are dissolved in the hot-water plume precipitate out to become seafloor deposits of cobalt, gold, copper, and a medley of rare earth elements. The technology used to extract hydrothermal deposits is under development but is, as yet, untested. Although miners may skirt active hydrothermal vents because of the risk that the hot, acidic waters pose to their expensive equipment, rich mineral deposits are often found near active vent communities. These unique ecosystems are placed at risk of direct damage from equipment used close by or from burial from sediment plumes stirred up by mining.

The ISA's opportunity

The International Seabed Authority faces a critical opportunity: to draft and implement regulations that protect the marine environment from an extractive activity before work has begun.



The ISA has already taken a major step by approving an environmental management plan (EMP) for the Clarion-Clipperton Fracture Zone and its giant array of polymetallic nodules. The EMP provisionally establishes nine 160,000-square-kilometre (61,800-square-mile) no-mining areas, each large enough to “ensure the persistence of representative fauna.” If this approach to establish protected areas also informs the draft EMPs for seamount crusts and hydrothermal vents, and if those EMPs are adopted, the ISA will have progressed significantly to fulfil its mandate.

But protected areas are not sufficient. The ISA exploitation regulations—the rules and processes governing seabed mining where it actually may occur—are equally important. The ISA Assembly, the organization’s final authority, has told the ISA Legal and Technical Commission that drafting exploitation regulations must be its highest priority. An initial draft is expected to be released before the end of 2016. A final version of exploitation guidelines could be ready for official ISA Assembly approval in July 2018. The Pew seabed mining project aims to monitor and inform the ISA’s work during this early period. The project will serve three main functions:

- Enable scientists and other experts to provide information and recommendations to the ISA as it drafts the regulations.
- Advocate for large protected areas and a stringently science-driven precautionary approach to exploitation outside the protected areas.
- Press for strong ISA regulatory capabilities exercised through transparent governance.
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Rules for mining the deep seabed are critical to protecting biodiversity and ensuring ocean health. The ISA is well-positioned to create regulations that allow for the economic opportunity of mining, while also protecting large swaths of the ocean from permanent damage. Science-based precautionary guidelines will strike an effective balance that minimizes the environmental impact of seabed mining.

Endnotes

1. European Commission, “Blue Growth: Opportunities for Marine and Maritime Sustainable Growth” (13 September 2012), 10, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0494:FIN:EN:PDF>.
2. Maribus gGmbH, “Manganese Nodule Treasures,” World Ocean Review, <http://worldoceanreview.com/en/wor-3-overview/mineralresources/manganese-nodules>.
3. Ibid.
4. International Seabed Authority, “Cobalt-Rich Crusts,” <https://www.isa.org.jm/files/documents/EN/Brochures/ENG9.pdf>.
5. Ibid.

Lifting of Mining Moratorium in AROB welcomed

BY: Anonymous, PNG Loop, June 17, 2016

The recent lifting of the Mining Moratorium on Bougainville has been greatly welcomed by resource owners on Bougainville. The resource owners say that there is now freedom for them and the government to do any other mining prospects on the island. A Chief from a resource area in Central Bougainville Michael Aite told Loop PNG that at last their prayers have been answered. “BCL thought they owned this island when the Moratorium was still on, now they can have a cold chill down their spines,” Aite said. “All seven tenements we claim as ours now belong to our homeland for the future of our kids and our grandchildren,” he said.



Picture: The once BCL operated Panguna Mine, now the Moratorium has been lifted. Author: Peterson Tseraha

Aite is an icon when it comes to the fight against mining giant BCL, his image can be seen on books holding two babies as sacrifice, for BCL to kill those two babies before they can mine in their Karato area, back in the 1960s. “We have now moved a step closer towards driving the devil out and very soon it will be out from our homes and our lives for good,” Aite said. “This is a very historic move being taken by our government now and it is also very bold and we would like to commend ABG for this move because it clearly fights for our rights the people of Bougainville more particularly us resource owners,” he said. “It was BCL all along that prolonged the Moratorium because it wanted to protect its seven tenements on our land but we’re happy those tenements are ours again, we feel whole again, we feel like a missing part of our lives have been given back to us,” Aite said.

Pruaitch commends PNG-LNG operation

Post-Courier, June 17, 2016

By ROSALYN ALBANIEL

DESPITE the sharp downturn in crude oil and LNG prices, Papua New Guinea’s petroleum industry continues to operate profitably says treasurer Patrick Pruaitch. Speaking at the France-Papua New Guinea Trade and Investment Forum in Paris, Mr Pruaitch said the industry is now eyeing a US\$10 billion expansion that would involve construction of a four million tons a year third LNG train. Mr Pruaitch said work would be undertaken by French energy giant Total as soon as regulatory approvals are given by the government. He said this would be Papua New Guinea’s second LNG project, behind the successful first operated by the US’s ExxonMobil, with construction expected to commence in 2018 targeting overseas markets early in the coming decade. “Total and its partners have confirmed that this will involve an investment of US\$10 billion (K31.55bn), about the equivalent of the proposed third train, and almost half the cost of the original LNG plant,” the treasurer said.

He said opportunities would abound for other French companies not just in the petroleum industry but others as well. “New resource projects require very specialised companies to participate in design and construction. “The PNG LNG project was responsible for doubling the size of the Papua New Guinea economy and the two proposals would have at least as much impact. “This will create opportunities in every segment of our economy. “French companies willing to make long term commitments will be greatly enriched by this experience, while helping to uplift living standards in our society,” he said. He gave an example in power generation being an area that could be taken advantage of as despite the country joining the ranks of the world’s largest natural gas exporters that

only 10 per cent of the populace had access to reliable electricity supply. He said other opportunities existed in the construction of other relevant infrastructure from roads, airports, communications, tourism as well as agriculture.

Papua New Guinea cooks up bond debut

By Jackie Horne, FinanceAsia, 17 June 2016

The Independent State of Papua New Guinea (PNG) is set to embark on international roadshows next week for what it hopes will be its debut international bond deal. The B2/B+ rated nation has hired ANZ, Bank of China, JP Morgan and Societe Generale for a dollar-denominated transaction. Central bank governor Loi Bakani and Department of Treasury secretary Dairi Vele will lead presentations in London on June 21, followed by Boston on June 22 and New York on June 23. The prospective deal comes at a critical time for the country, which is running short of US dollars and wants to raise funds to manage government finances, which are under pressure as a result of low oil prices. PNG will be hoping it is third time lucky given it has made at least two active attempts to raise dollar bonds over the past decade-and-a-half, both of which failed. Has it got the ingredients right to serve up a successful deal this time round? One new addition to the mix is the presence of Bank of China on the syndicate.

Its inclusion underscores a new stage in the internationalisation of Chinese banks as they become more active in the global capital markets. Historically, they have only been able to win mandates from their own credits before, with the exception of ICBC, which was joint global co-ordinator on a deal for the Republic of Angola due to oil-related ties between the two countries. Bank of China's inclusion also reflects the greater role Chinese companies are playing in PNG too. Over the past few years, Chinese companies have started to build up their presence in the country, particularly in the mining sector; something that was not the case when the sovereign last tried to access the market in 2013. That year state-owned Guangdong Rising Assets Management purchased a \$3.6 billion copper project from Glencore (PanAust), which it is still seeking approval for, while Zijin Mining purchased Barrick Gold's Porgera gold mine in 2015. China Metallurgical Group also has a \$2.1 billion nickel-cobalt project.

As such, Chinese investors may well provide some form of backstop for the deal, especially given they have a reputation for being far less bothered about political risk than the emerging and frontier market investors PNG will still need to win over. In PNG's case, that may be just as well since political risk will be one of international investors' chief considerations. Even by Asian standards, PNG has had a colourful time trying to launch itself into the international capital markets. Its first attempt occurred in early 1999 when the then B1/B+ rated sovereign awarded JP Morgan and UBS a mandate to bring a \$250 million five-year bond. But its plans rapidly fell apart when the leads discovered proceeds might end up being used for re-payment of mercenaries. The previous government had hired one such group, Sandline International, to deal with a crisis in Bougainville where protests relating to environmental damage by a Rio Tinto copper project had provoked an attempt at secession. London-based Sandline had a legally binding contract with the government and had been awarded costs of \$18 million by an international tribunal after the government failed to pay its fees in full. PNG similarly failed in its efforts to get a bond deal off the ground in 2013 after mandating Barclays, BNP Paribas and JP Morgan.

A second key variable, which may act in its favour this time round, is the completion of a \$19 billion liquefied natural gas (LNG) plant run by ExxonMobil, which is now operational and has the potential to help transform the country over the longer-term. Revenues from the project, which account for 118% of GDP, had been earmarked to lift the country to a new stage of development but have been hit by falling oil prices. As a result, the government has had to rein in spending by 17%

so far this year. Standard & Poor's believes it will be successful and achieve a budget deficit of 4.6% compared to 5.6% in 2015. In terms of pricing a new bond deal, there are a number of Asian nations with ratings close to PNG including Sri Lanka with its B+/B1 rating, Pakistan on B3/B-/B- and Mongolia on B2/B. Sri Lanka and Pakistan both have 2019 bonds outstanding, which yield 5.1% to 5.2%. However, it seems far more likely that Mongolia will provide a better comp given it is also struggling with an economy that has been hit by declining commodity prices.

Its 2021 bonds are currently trading at the 10.2% level and it seems highly unlikely PNG will be able to better this given Mongolia already has an established track record. PNG's credit ratings are also heading in the wrong direction. Earlier this year it was downgraded by Moody's from B1 to B2 and is now on stable outlook. However, its B+ rating has been on negative outlook with S&P since 2007. In its most recent ratings release, S&P said low global energy prices are "weighing on the economy, export receipts and government revenues". It added that this is coinciding with large increases in external and fiscal imbalances but noted the government is responding "forcibly" to deal with them. The agency also highlighted how the country ranks a lowly 155 out of 188 on the UN's Human Development Index and flagged a high level of urban crime: something international bankers who have visited the country are very familiar with given the presence of armed guards as escorts every time they leave their hotel in Port Moresby.

UN envoy supports economic expansion

The National, June 16th, 2016

By Gedion Timothy

UNITED Nations resident coordinator Roy Trivedy says he regards broadening and diversifying Papua New Guinea's economic base as a vital ingredient to national development. He told The National that he supported the emphasis that the government had placed on the development of the tourism and agriculture sectors. "I regard the importance of broadening and diversifying the Papua New Guinea's economic base as a vital ingredient for the country's development," he said. "United Nations Development programme human development report for Papua New Guinea set out the reasons why this is important for the country. "In terms of how this can be achieved, I agree on the emphasis that the Government has placed on the development of agriculture and tourism in the country." He said these sectors were vital at the national level and in most provinces. And if done well, it would benefit many citizens.

"But I think the pace of change on developing these sectors needs to be significantly improved (clear milestones could be established to assess progress)," Trivedy said. "I think that this emphasis on agriculture and tourism needs to be accompanied by much greater emphasis on human development (education, training, skills development literacy and numeracy are essentials) for all. "It can be used to also target particular groups of the population such as women and youth. "We could have the Education Department and others including high profile individuals really championing this agenda nationally. "I also think that in addition to the national level work, each province should develop their own economic development plan (which would focus on key sectors that they want to develop over the next 5-10 years based on the availability of particular resources like fisheries, forestry etc that they have." Trivedy said the United Nations was already working with some district and provinces to start to develop such plans. "Such plans would become more help for expansion of the rural economic base."

Papua New Guinea mining looks to future gains

Oxford Business Group, 15 Jun 2016

The mining sector in Papua New Guinea is showing signs of an uptick after operations resumed at one of the country's largest mines, with new and ongoing projects set to inject much-needed foreign exchange and employment into the economy. Indeed, revised forecasts for the development budget of the Frieda River project – which could hold the largest undeveloped copper and gold deposits in the world – bode well for the long-term outlook of the sector.

Revised estimates

Last month PanAust, a subsidiary of Chinese state-owned Guangdong Rising Assets Management (GRAM), released the results of its feasibility study for its Frieda River project in north-west PNG. The open-pit mine is estimated to have an average annual production in concentrate of 175,000 tonnes of copper and 250,000 ounces of gold, and is projected to have an initial operational life of 17 years, according to the study. The company doubled the forecast budget for the developmental stage of the mine to \$3.6bn, and an additional \$2.3bn is set to be invested during the life of the project. In part, the increase in the development budget is a result of higher construction and waste management costs, but also reflects increased expectations for the project, which require more extensive infrastructure.

With the application process for the mine likely to take about two years, followed by an estimated six-year construction period, the earliest that the Frieda River mine is expected to start shipping product is late 2024, local media reported. As of mid-2016, no formal financing had been secured and a construction date had yet to be announced, according to GRAM. GRAM bought the leading stake in the project last year, continuing a trend of Chinese firms seeking access to overseas copper sources. China is currently the largest single market for copper, which is currently priced at seven-year lows.

Project pipeline

Coming on-line well ahead of the Frieda River project, however, is the Wafi-Golpu project, a bright spot in PNG's mining market. First production at Wafi-Golpu – a joint development between Australia-based Newcrest Mining and South African miner Harmony Gold – is slated for 2020. The companies expect production will reach 320,000 ounces of gold and 150,000 tonnes of copper in the first stage, with an estimated lifespan of 27 years. The first stage of the project will cost an estimated \$2.3bn, with life-of-mine expenditure forecast at \$3.1bn.

Back in action

PNG's mining industry received a much-needed boost in March, when the giant Ok Tedi copper and gold mine resumed production after operations were suspended in August of last year due to drought conditions brought on by El Niño. The lack of rain had resulted in lower water levels of the Fly River, hindering vessels from carrying the take from Ok Tedi downriver. In the months before the drought broke, disruption to production resulted in losses of P2bn (\$43m), according to local media.

Potential regulatory headwinds

Plans to draft new legislation and amend the act governing the industry's regulatory agency, the Mineral Resources Authority (MRA), could have significant implications for the industry, according to Ken MacDonald, chairman of mining company Highlands Pacific, which has a 20% stake in the Frieda River project. The revised MRA act foresees a doubling of the production levy payable by miners, which currently stands at 0.25% of assessable income. It also would give the authority control over the proceeds of that levy and remove the industry from representation on the MRA board. "Perhaps more importantly, a review of the Mining Act is being contemplated, and while the

situation remains fluid, it is important that care be taken to ensure that the new act does not [...] end up with legislation that discourages further investment in PNG,” MacDonald said at a company meeting last month.

The PNG Chamber of Mines and Petroleum has warned that the downturn in the global commodities market has already seen a number of foreign investors walk away from projects in PNG, and some stakeholders fear that a more stringent operating environment could exacerbate this trend. However, supporters of the reforms say the changes will make mining firms more accountable, ensure an equitable distribution of earnings and provide long-term sustainability to communities beyond the operating life of a mine. In the shorter term, development of the Frieda River and Wafi-Golpu projects should see billions of dollars worth of investment injected into the PNG economy over the next eight years, providing a much-needed boost for auxiliary industries, such as construction and services, as well as generating jobs, secondary investment and cash flow – all of which have been in short supply in PNG of late.

Australia: Taxpayers Could Pay Billions To Clean Up Old Mines, Report Says

By Thom Mitchell, newmatilda.com, June 14, 2016



IMAGE: Beyond Coal and Gas, Flickr.

The Australian Conservation Foundation is backing calls for an inquiry into mine closures and rehabilitation in the wake of a report warning of serious gaps between the funds held by governments and the true cost of remediation. The [report](#) from the Mineral Policy Institute recommended a national inquiry into the issue. It said the development of a nation-wide legal obligation for accurate site-by-site reporting of projected mine closure and rehabilitation costs should be included in company balance sheets. Responding to the report, the Australian Conservation Foundation (ACF) called on all parties to commit to establishing an inquiry in the first 100 days of the next parliament. “Big mining companies [must]clean up their mess, not leave polluted water and land for generations to come,” said Paul Sinclair, the organisation’s National Campaigns Director.

According to the report authors: “The trend toward mining lower quality ore grades and the use of large open pits produces desolate landscapes riddled with pits, dumps, pollution and subsidence events that dwarf those of earlier generations.” Slipshod closures appear to be the norm: The report cites research which found that 75 per cent of mines in Australia are closed prematurely or in an unplanned way. There are thousands of abandoned mines around the country, and it is often the case that there is insufficient money held in government bonds to cover proper rehabilitation costs. Sinclair said with the mining boom “fading fast” and many mining companies in considerable distress,

the problem will inevitably get worse. The risk identified in the report is that taxpayers will be left to foot the bill of cleaning up mines, which could conceivably run into the billions of dollars.

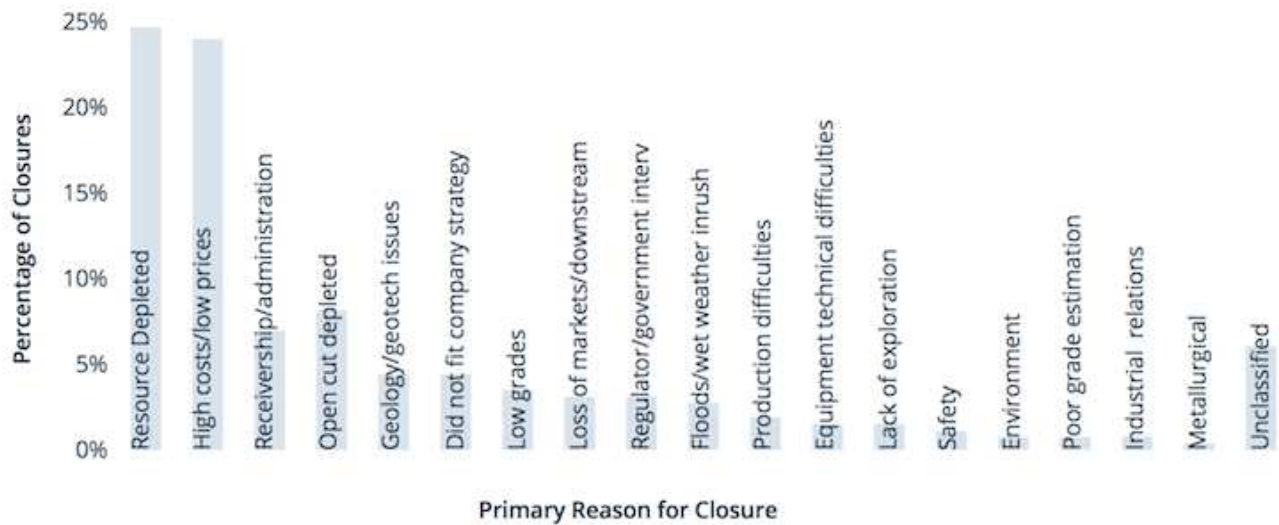


Figure 2. Australian mine closures 1981- 2005 showing the primary reason for closure
(Source: Laurence, 2006)

(IMAGE: Mineral Policy Institute.)

“This report reveals a looming disaster that urgently requires national action if we don’t want to have a string of off-limits toxic sites around the country and the public left to pay for their ongoing maintenance,” Sinclair said. If the report’s recommendations were taken up by government, they would have serious implications for mining companies already struggling with tumbling commodity prices. In the case of Adani’s controversial Carmichael Coal Mine, for example, “a closure bond of sufficient size and security would require billions of dollars, making the project even less financially viable”. The Mineral Policy Institute report notes that state government regulations rarely require mining companies to fork out a bond which fully covers the costs of rehabilitation. Liability for costs is often avoided through networks of subsidiary companies.

The report cites a range of examples in different states to make the point that detailed closure and rehabilitation plans are rarely made public, if they exist at all. Mining magnate Clive Palmer’s Yabula nickel refinery – which is located on the shores of the Great Barrier Reef – was offered as one example of a company that is unlikely to be able to foot its own clean up bill. The Greens in particular have campaigned around the issue of mine-site rehabilitation in the run up to the 2016 election. They party has developed a policy which would have coal workers fill in the mines instead of excavating them. Neither major party has explained how they would rehabilitate the thousands of abandoned mines, or force existing mines to stump up ahead of their eventual closures.

The issue has been discussed between state and federal governments since at least 1992, but little progress has been made. This need for coordinated action, the report said, “has been stated frequently and emphatically for more than a decade”. “The way forward is for states to implement locally specific rules within a national framework; where risks are acknowledged, impacts reduced and closure and management activities covered by adequate and secure financial instruments,” the report said. Report: GROUND TRUTHS: TAKING RESPONSIBILITY FOR AUSTRALIA’S MINING LEGACIES

<https://www.acfonline.org.au/sites/default/files/resources/MPI%20mine%20rehab%20report.pdf>

Bougainville Government Decision On Lifting Mining Moratorium Yet To Be Made *President Momis says Cabinet will make final decision after consultations*



Bougainville President John Momis

WELLINGTON, New Zealand (Radio New Zealand International, June 14, 2016) – The President of Bougainville John Momis says any decision on the lifting of the mining exploration moratorium is for his cabinet to make. This comes after the legislature in the Papua New Guinea autonomous region supported a full lifting of the moratorium in a session last week. The moratorium has been in place since the 1970s and there has been criticism of it being lifted without consultation. But President Momis said that while the government consulted with the people through their representatives in parliament, the decision is the cabinet's to make and that is yet to happen. "The consultation that we had with Parliament was just to get the views of the people through their representatives," said Mr Momis. "It is the BEC [Bougainville Executive Council] that makes the decision to lift or not to lift, partially or globally, the moratorium. So ultimately the power is vested in the BEC, that is the Cabinet."

Ethane to benefit mining firms: Chan

The National, June 14th, 2016

By MALUM NALU

MINING Minister Byron Chan says mining companies are in for a boon with the establishment of the US\$2 billion (K6 billion) ethane power plant in Madang. It is expected to transmit electricity from Madang to Port Moresby. Chan, who invited American Ethane Company into the country to look at providing cheaper electricity for mining companies, last week met company officials, Petroleum and Energy Minister Ben Micah, and officers from departments of Public Enterprise and Mining and Petroleum, and the Independent Consumer and Competition Commission. "The reason why I'm so interested and deeply involved with this project is that we have major mines like Yandera, Frieda River and Wafi," he said. "All our existing mines, including Lihir and Simberi, Ramu Nickel and Hidden Valley, Ok Tedi, depend on fuel for power generation. Fuel cost is high. "It's not only expensive to generate power, but actually getting the fuel to the mines is expensive. "So mines are hit with double costs. "It reflects about 30 to 40 per cent of the costs of any mine in Papua New Guinea."

Abbau von Manganknollen gefährdet Artenvielfalt der Tiefsee

derStandard.at, 13. Juni 2016

Die Auswirkungen des Abbaus der langsam gewachsenen Knollen sind für etliche Lebewesen verheerend. Die Folgen sind noch 40 Jahre später sichtbar. Wilhelmshaven – Die Nachfrage nach mineralischen Ressourcen steigt weltweit kontinuierlich. Längst wird auch die Tiefsee nach Mangan, Nickel, Kupfer oder Kobalt erkundet. Diese wertvollen Mineralien sind in Form von Manganknollen besonders häufig im zentralen Pazifik am Meeresboden zu finden, und zwar in der sogenannten Clarion-Clipperton-Bruchzone in über 4000 Metern Tiefe. "Diese Manganknollenfelder sind aber viel mehr als nur potentielle Unterwasser-Bergbaugebiete", sagt Pedro Martínez Arbizu vom Deutschen Zentrum für Marine Biodiversitätsforschung (DZMB) in Wilhelmshaven. Er hat mit einem internationalen Team die möglichen Auswirkungen des Manganknollen-Abbaus auf die Artenvielfalt erforscht. Wie die Ergebnisse in "Scientific Reports" nahelegen, leben in Gebieten mit Manganknollen doppelt so viele Individuen wie in Tiefseebereichen ohne die erzhaltigen Konkretionen.

Die Auswirkungen eines Abbaus seien zudem noch knapp 40 Jahre später deutlich sichtbar. Langsames Wachstum Manganknollen wachsen über einen Zeitraum von Millionen von Jahren. Die Fauna rund um die Tiefseemineralien ist daher an sehr gleichförmige Lebensbedingungen angepasst. Manganknollenfelder bieten einen Lebensraum für verschiedene Seesternarten, Seegurken und Seeigel. Auf den Knollen selbst leben Korallen, Schwämme, Moostierchen und Anemonen, aber auch mikroskopische Fadenwürmer, Krebse und Einzeller. "In Gebieten mit Manganknollen leben im Schnitt 25 Organismen auf 100 Quadratmetern Tiefseeboden, in Gebieten ohne Manganknollen sind es weniger als zehn. Dies zeigt uns, dass die mineralischen Knollen ein wichtiger Baustein des Lebensraums für die Tiefseefauna sind", so Martínez Arbizu. Die Wissenschaftler untersuchten, wie sich der Abbau von Manganknollen auf diese Lebewesen auswirkt und ob, wie schnell und von wo aus die abgebauten Gebiete wieder besiedelt werden.

Zwei der Beobachtungspunkte lagen daher in Gebieten, in denen vor 20 bzw. 37 Jahren der Abbau von Manganknollen simuliert wurde. "Darüber hinaus haben wir uns auch die Tierwelt in zwei aktuellen – acht Monate und drei Jahre alten – experimentell gestörten Testgebieten angeschaut", sagte der Meeresforscher. Bedrohte Korallen Mit erschreckendem Ergebnis: Selbst 40 Jahre nach dem Abbau von Manganknollen sei noch eine deutliche Störung sowie ein Verlust der Artenvielfalt zu erkennen. Am härtesten trifft der Abbau demnach Korallen und Schwämme, die den harten Untergrund der Knollen als Lebensraum benötigen – auf dem weichen Sediment in der umliegenden Tiefsee finden sie keinen Halt. "Der Abbau von Manganknollen beeinflusst die Vielfalt der Tiefseefauna auch auf lange Sicht negativ", resümiert Martínez Arbizu. (red, 13. 6. 2016) Abstract Scientific Reports: "Threatened by mining, polymetallic nodules are required to preserve abyssal epifauna" - derstandard.at/2000038824883/Abbau-von-Manganknollen-gefaehrdet-Artenvielfalt-in-der-Tiefsee

Lebensraum Manganknolle

Tiefseebergbau stört die Artenvielfalt nachhaltig

Natur, Juni 2016

Ausgerechnet dort, wo die heißbegehrten Manganknollen schlummern, liegen die Hotspots der Tiefseefauna, zeigt eine Untersuchung. Außerdem erholen sich vom Abbau betroffene Gebiete offenbar nicht, geht aus den Ergebnissen eines Langzeitexperiments hervor.

Gierig reibt man sich die Hände - am Tiefseegrund des Zentralpazifiks warten angeblich dicke Schatz-Brocken geradezu darauf, eingesammelt zu werden: In den sogenannten Manganknollen stecken heißbegehrte Erze wie Nickel, Kupfer oder Kobalt. Doch nun trüben erneut Ökologen die

Goldgräberstimmung: "Diese Manganknollenfelder sind viel mehr als nur potentielle Unterwasser-Bergbaugebiete. Unsere Forschung zeigt, dass sie wahre Hotspots der Tiefwasserfauna darstellen", sagt Pedro Martínez Arbizu vom Deutschen Zentrum für Marine Biodiversitätsforschung bei Senckenberg am Meer in Wilhelmshaven.



Das problematische Objekt der Begierde: eine Manganknolle. (Foto: Senckenberg/Siegler)

Gemeinsam mit Kollegen aus Belgien, Frankreich und Portugal hat er die Auswirkungen eines möglichen Manganknollen-Abbaus auf die Artenvielfalt der Tiefsee untersucht. Ihre Auswertungen von Videoaufnahmen belegen, dass Gebiete mit vielen Manganknollen eine mehr als zweifach höhere Anzahl an Individuen aufweisen als Bereiche mit wenigen oder keinen Knollen. "In Gebieten mit Manganknollen leben im Schnitt 25 Organismen auf 100 Quadratmetern Tiefseeboden, in Gebieten ohne Manganknollen sind es weniger als 10 Individuen", berichtet Martínez Arbizu.

Manganknollen sind Bestandteil des Ökosystems

Wie die Meeresbiologen erklären, sind die Manganknollen ein wichtiger Bestandteil des Ökosystems. Sie wachsen über einen Zeitraum von Millionen von Jahren - dementsprechend ist die Fauna an sie angepasst. Konkret: Auf den Knollen selbst leben Korallen, Schwämme, Moostierchen und Anemonen sowie mikroskopische Fadenwürmer, Krebse und Einzeller, belegen die Untersuchungen. Die Manganknollenfelder sind außerdem Lebensraum für verschiedene Seesternarten, Seegurken und Seeigel.

Im Rahmen ihrer Studie untersuchten die Forscher auch, wie sich Tiefseebergbau langfristig auf die Lebensgemeinschaften auswirken könnte. Sie werteten dazu die Effekte von Experimenten aus, bei denen bereits vor 20 beziehungsweise 37 Jahren Stücke des Tiefseegrunds gepflügt worden waren, um Bergbau zu simulieren. "Darüber hinaus haben wir uns auch die Tierwelt in zwei aktuellen – acht Monate und drei Jahre alten – experimentell gestörten Testgebieten angeschaut", ergänzt Martínez Arbizu. "Das Ergebnis ist erschreckend: Selbst knapp 40 Jahre nach dem Abbau von Manganknollen ist noch eine deutliche Störung sowie ein Verlust der Artenvielfalt zu erkennen."

Langzeitfolgen

Konkret zeigte sich, dass die Anzahl am Boden festsitzender Organismen von 24 außerhalb des Testgebietes auf 3 Individuen pro 100 Quadratmeter innerhalb des Testgebietes gesunken ist. Am härtesten trifft der geplante Abbau dabei offenbar Korallen und Schwämme, die auf dem weichen Sediment in der umliegenden Tiefsee keinen Halt finden und deshalb die Knollen benötigen. Das Fazit der Meeresbiologen lautet nun: "Der Abbau von Manganknollen beeinflusst die Vielfalt der Tiefsee-Fauna auch auf lange Sicht negativ", so Martínez Arbizu. "Wir empfehlen daher ein

verantwortungsvolles Management des Unterwasser-Bergbaus unter Berücksichtigung von Schutz-
zonen für die Tiefsee-Fauna."

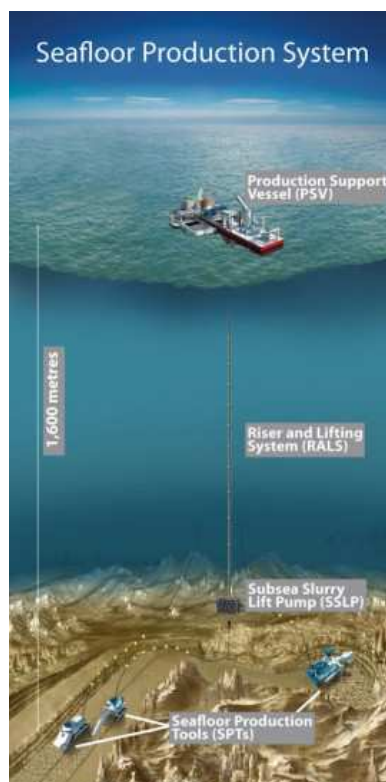
Nautilus short of US\$200 million

PNG Mine Watch, 13 June 2016



Nautilus Minerals needs another \$200 million to complete its mining ship

Prospective seabed mining company Nautilus Minerals does not have the US\$200 to US\$225 million it needs to complete the construction of its giant floating production support vessel. This makes the future of its proposed experimental Solwara 1 mine in Papua New Guinea look increasingly uncertain. According to the company's Chief Financial Officer, Shontel Norgate, quoted in an article in the [Northern Miner](#), Solwara 1 requires a total capital expenditure of \$383 million but Nautilus is short by US\$200 - \$225 million. This means it does not have the funds it needs to complete the construction of its support ship.



Nautilus attempted to raise US\$100 million in a rights offering in April, but that was a unmitigated disaster. Only 27% of the total shares on offer were sold, raising just \$28 million. Despite its lack of capital and the failed rights issue, the company bullishly says it still hopes to begin production in PNG in the first quarter of 2018. The proposed open cast mining operation will strip away the seabed to a depth of 10 metres using three giant remotely operated machines. But CEO Mike Johnston admits that timetable depends on completing the support vessel by the middle of 2017. “The critical item that determines our schedule is building the vessel, which is our mining platform.” He remains very vague though about where the money is going to come from. “We’re in discussions with groups about getting additional capital”.



The giant machines Nautilus hopes to use on the seafloor have never been tested at that depth

Who’s Monitoring Deep-Sea Mining?

Huffington Post article by Phil Pauley, 12/06/2015



Forget the space race. Lately, it’s the race to the seabed that’s been capturing headlines around the world as China’s [Jiaolong submersible](#) returned from its 118-day expedition in the depths of the Indian Ocean. While the current focus of seabed studies is research and sample gathering, the long-term game is all about mining for precious minerals. But should we be allowing the pristine deep sea floor to be touched at all? With many different organisations currently probing up to 1.5 million square metres of the Indian and Pacific Oceans, how can we possibly hope to monitor and under-

stand the ecological impacts of such actions? A series of permanent underwater human habitats able to improve localized monitoring could be part of the answer.

To mine or not to mine?

Due to a lack of suitable technology, there's been a lack of activity in deep-sea mining since HMS Challenger first discovered seabed minerals in 1873. But huge investment in emerging technologies is likely to make commercial mining a reality within a few years. Countries and commercial companies are interested in exploiting rich seafloor sources of cobalt, copper, nickel, silver, gold, vanadium, titanium, manganese and rare earth elements - all of which are essential ingredients of everyday life, from mobile phone batteries to surgical instruments, engines and TV screens. In some international waters lie billions of tonnes of metal-rich nodules, waiting to be gathered. So far, 26 permits have been issued to allow exploration. Many argue that technological advancement - even the development of renewable energy technologies - will demand sub-sea sources of minerals. Executed responsibly, seabed mining could have less of an impact than its terrestrial counterpart.

The complexity of the machinery required would likely ensure that it is a smaller-scale process, which would probably involve remotely operated vehicles and robots. And unlike mining on land, no roads or other infrastructure would need to be built in order to gain access. Yet the [Deep Sea Mining Campaign](#) insists that deep-sea mining is being initiated "in the absence of regulatory regimes or conservation areas to protect the unique and little known ecosystems of the deep sea". A study carried out between 2002 and 2007 estimated that there could be more than 1,000 species at a single site in the key region proposed for mining. According to the [Global Ocean Commission](#), "mining at the seafloor will cause localized damage, including crushing living organisms, removal of substrate habitat and disturbance of sediment", with further environmental impacts during processing. They list rising demand for resources, technological advances and weak high seas governance as "drivers of decline" for the oceans. The financial rewards may make deep-sea mining inevitable, but we still know precious little about this environment and its ecology. So shouldn't we be proceeding with more caution?

Towards more in-depth monitoring

Since 1994, the [International Seabed Authority](#) (ISA) is the intergovernmental body responsible for handing out permits for explorations like this one, organizing and controlling all mineral-related activities in the regions of the world's oceans not covered by any country's territory. The ISA's 164 members (excluding the United States, who have not ratified the convention) work together to develop standards, regulations and guidance for seabed exploitation. It has also established nine protected areas in the Pacific where mining will be banned. But do its efforts go far enough? While concerns about emerging powers China and India dominate headlines in the Western world, the United States is pushing forward with mining plans.

In May, the [Center for Biological Diversity](#) launched a lawsuit against the U.S. government over its first-ever approval for large-scale deep-sea mining between Hawaii and Mexico. They say the project will damage important habitat for whales, sharks and sea turtles and wipe out seafloor ecosystems. Their challenge insists that environmental impact studies should be completed before exploratory permits are issued. This month's G7 Summit discussed deep-sea mining, stating in their released [Declaration](#) that they had identified the need to enhance the effective protection of the marine environment from harmful effects as a key priority, requiring a "precautionary approach". But that precautionary approach demands that more information is provided about preliminary operations beneath the surface.

Keeping tabs on development from beneath the waves

The Chinese submersible discovered new hydrothermal vents this year - unique ecosystems about which we have much to learn - and announced the gathering of huge amounts of data, samples and

new species. The first commercial mining license has already been granted to Nautilus Minerals, who are planning operations in the coastal waters of Papua New Guinea - a region that doesn't fall under the remit of the ISA. With the Pacific islands' waters as ground zero for deep sea mining activity, those countries should work together to develop strong regulations so that companies cannot choose waters with lax or no regulations to go mining in.



Although there are some rules and regulations in place, it remains unclear how ISA will monitor activity to ensure that they are adhered to thousands of metres beneath the oceans' surface? Is anyone truly quantifying the impact on the seabed? My mission to develop a [self-sustaining underwater habitat](#) could help forge the infrastructure and technologies to make more in-depth monitoring possible. Forming a cooperative platform would unite industry and ecological research organisations with a permanent undersea community. NASA's [2016 X-Hab Academic Innovation Challenge](#) currently has research teams designing buildings, life support systems and technologies for "Beyond Earth Habitation". If we can create structures capable of supporting humans on Mars, it's easily conceivable that we could develop a sustainable sub-sea habitat here on Earth - perhaps even using the same approaches and technologies. Working from a combination of static or moveable underwater habitats, inhabitants could accurately research how deep-sea marine ecosystems are affected by early explorations and initial mining activities. We continue to seek partners and sponsors eager to collaborate.

Survey reports mining bribe claims

Ropate Valemei, The Fiji Times, June 10, 2016

CIVIL society organisations (CSOs) report numerous instances where chiefs of deep sea mining (DSM) project-affected communities were swayed by bribes or personal favours from Government or industry to allow mining and/or other industrial activity in their villages. This included villages where CSO surveys reported 100 per cent disapproval from respondents on mining prospects on their land. This was revealed in the report by Blue Ocean Law and the Pacific Network on Globalisation, which was released early this week, on how deep sea mining and inadequate regulatory frameworks imperil the Pacific and its people. The report notes this occurred with respect to fishery agreements, where the consent of fishery owners within the village had been bypassed by obtaining the endorsement of the chief instead. "The courting of local leaders, chiefs or landowners undoubtedly poses risks for the preservation of traditions and livelihoods of indigenous communities," the report notes.

New Zealand government looks to change law to accommodate seabed mining

PNG Mine Watch, June 10, 2016



Photo: ROBERT CHARLES/ Fairfax NZ

Green Party, Foreign Affairs, June 9, 2016

Environment Minister Nick Smith and the National Government appear to have bowed to pressure from mining lobbyists to change the law to help seabed mining companies. In 2013 Trans-Tasman Resources applied for a marine consent under the Exclusive Economic Zone (EEZ) legislation to mine 66 km² of the seabed for iron ore off the South Taranaki coast. The Environmental Protection Agency's (EPA) Decision Making Panel refused the application. In its 2014 decision the panel said the scale of impacts was uncertain and it wasn't satisfied that potential environmental effects could be avoided or remedied. Impacts included sediment plumes with potential impacts on fisheries, ecosystem productivity and health, and marine mammals including the threatened Maui's dolphin. Documents released to the Green Party under the Official Information Act show that mining industry lobby group Straterra wrote to National Ministers shortly after the 2014 EPA decision, on behalf of Trans-Tasman Resources, pressuring the Government to review the decision making process which governs applications to mine in New Zealand's EEZ.

Straterra also produced a paper analysing the Trans-Tasman Resources decision and seeking a range of changes to the EEZ legislation and the way the EPA operates, in order to promote mining. A year later the Nick Smith went against official advice and proposed a law change to give himself, as Minister, greater influence over decisions to approve or decline seabed mining in the EEZ. This law change, in the Resource Legislation Amendment Bill (RLA Bill), removes the independent EPA from its role appointing the Decision Making Panel which decides seabed mining and other applications in the EEZ. The Bill instead requires the Environment Minister to appoint members of a Board of Inquiry who will decide these marine consent applications. The regulatory impact statement for the RLA Bill shows that officials advised against this law change, arguing that greater ministerial involvement would not only increase costs to the taxpayer, but create a perception that the government was seeking to influence the outcome of independent decision-making process. [1]

National has not been straight-up with New Zealanders. These law changes are clearly about enabling the Minister to influence who makes decisions about controversial and high impact activities such as seabed mining. National is about to replacing an independent decision making process with a more political one, and override decisions that recognised we need to put the long-term health of our environment ahead of short-term profit making. National is deliberately eroding the independence of our Environmental Protection Authority, by instead giving the Minister the power to hand-pick the people to decide which environmentally damaging projects should go ahead. The whole

point of having these things at arm's length is so New Zealanders can trust the decision makers to be fair and objective and make evidence based decisions about environmentally damaging use of natural resources. National's law changes compromise this independence, allow vested interests more influence and mean the mining industry and other resource users won't have to lift their game.

Timeline of events

In June 2014 an EPA appointed Decision Making Committee declined Trans-Tasman Resource's application to mine the seabed off the South Taranaki coast for iron ore. [2] Four months later (October 2014) Straterra wrote to National Ministers on behalf of trans-Tasman complaining that the government wasn't doing enough to counter "an ideologically-driven, anti-mining agenda in New Zealand" and saying that changes were necessary "to the structure of the [EPA-appointed] decision-making committee, the nature and operation of the hearing process, to the way in which the EPA conducts its role, and the law." [3] In December 2015, Environment Minister Nick Smith introduced legislation (RLA Bill) which removes the EPA's role in appointing decision making panels and instead requires the Minister to appoint the Board of Inquiry to decide applications for notified activities such as seabed mining in the EEZ. [4] In November 2016, a month before the Minister publicly announced the legislative changes, Trans-Tasman Resources announced it would be making a new bid to mine for iron ore off the South Taranaki bight. [5]

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- [1] MfE (2015) 'Regulatory Impact Statement – Resource Legislation Amendment Bill 2015: alignment of the decision-making process for nationally significant proposals and notified discretionary marine consents', page 5.
- [2] <http://www.epa.govt.nz/search-databases/Pages/eez-proposals-details.aspx?ProposalNumber=EEZ000004>
- [3] See letter obtained under the OIA from Straterra to Ministers titled *Minerals Policy Proposals*, October 2014, page 5.
- [4] This change confirmed in government Summary of Resource Management Act Reform, page 9. The difference between the two decision-making processes as described in MfE's Regulatory Impact Statement, page 7.
- [5] <http://www.stuff.co.nz/business/74547041/transtasman-resources-apply-for-new-permit-to-mine-iron-ore-from-seabed.html>

Lifting of mining ban welcomed by B'villeans

The National, June 9th, 2016



Bougainville Parliament, source: Bougainville News

THE lifting of the mining moratorium by the Autonomous Bougainville Government (ABG) House of Representatives on Tuesday was welcomed by the people of Bougainville, former rebel commander, Sam Kauona says. Kauona told The National that with the next step of reopening the Panguna mine, lifting the moratorium would give an opportunity to other resource owners apart from Panguna to partake in mining activities. Negotiations between ABG, the national government, Panguna landowners and the Bougainville Copper Limited are yet to begin. He said the decision gave resource owners every right to operate as long as their activities were within the new Bougainville Mining Act. Kauona said by law Panguna was under BCL's moratorium and for them (BCL) to come back to operate it depended on how well they would negotiate with the other parties concerned. "What the other resources owners are happy about is their areas which are not under BCL's moratorium." He said resource owners would now have the right to negotiate with potential investors in accordance with the Bougainville Mining Act. "For alluvial mining to take place the investors have to meet terms and conditions of the resource owners." He said resource owners had the right to say yes or no if any deal was not honoured.

Time will tell mine restart: MP

The National, June 9th, 2016

By FRANCIS PULU

ONLY time will tell when the Panguna Mine will be reopened after the Autonomous Bougainville Government House of Representatives lifted the mining moratorium in Parliament session on Tuesday. Member for Hagogohe Constituency, Robert Hamal Sawa told The National that the decision was done in consultation with the people who agreed that the moratorium be lifted. Sawa said the next task was for the Bougainville Executive Council, Bougainville Copper Limited, Government and the Panguna landowners to negotiate on how well the mine would operate in accordance with the new Bougainville Mining Act. He said as the lifting was constitutionally amended, one condition of the lifting was for the Panguna Mine to be reopened. "We decided that for the moratorium to be lifted and for Panguna Mine to operate again, only BCL will be allowed back because they know the operation back then," he said. Sawa said they did not want to engage another company apart from BCL which did not understand the situation in Panguna. For areas that have minerals, it was up to the resource owners to organise and decide which mining activity either in alluvial or exploration should take place.

K92 Kainantu mine reports progress

Post-Courier, June 09, 2016

THE Kainantu mine in Eastern Highlands Province is slowly taking shape to resume operations now under K92 Mining Inc. K92 chief operating officer John Lewins said the mine restart program is progressing well in an activity update released yesterday. "We have put together a very strong site based management team which not only has extensive experience in the development and operation of gold deposits similar to Irumafimpa and Kora, but also has collective experience of in excess of 100 years in the PNG mining industry. "The remedial work on our 800 portal and incline, the main entry and exit point for our Irumafimpa mine is well in hand with safe access to the upper working levels being achieved, ventilation re-established, and the mobile equipment necessary for the restart now on site or in transit. "We have successfully recommissioned the crushing plant and importantly achieved a throughput of up to 95 tonnes per hour indicating the crusher has significant excess capacity in comparison to the planned mill throughput of 25 tph or 200,000 tonnes per annum. "With the installation of the new drum scrubber, which has arrived on site, the crusher throughput rate is expected to be further increased.

“We are also aware from historical records that the mill and flotation sections have operated for sustained periods at tonnages in excess of 30 tph and that even at this rate the mill was still not drawing full power. In addition we believe that the flotation circuit also has spare capacity as it was designed to treat grades of greater than 20 g/t Au. This indicates that the process plant has a potential capacity in excess of 250,000 tpa, which obviously provides significant upside potential from a future production perspective. “We have also completed the initial water commissioning of the mill and flotation circuits and are now working towards load commissioning of these circuits,” he said. K92 has signed an offtake agreement with InterAlloys Trading Limited covering the first three years of concentrate production from the mine. The signing of the offtake agreement follows extensive negotiations with a number of potential offtakers and while the commercial terms remain confidential between the Company and ITL, K92 is confident that the terms are extremely competitive and provide for payment of gold, silver and copper contained in the concentrate.

State to consider seven mine Memorandum of Agreements

Post-Courier, June 07, 2016

BY HAIVETA KIVIA

MEMORANDUM of agreements (MOA) for seven gold and copper mines in Papua New Guinea will be presented to Mining Minister Byron Chan to be tabled to the National Executive Council. The Managing Director of Mineral Resource Authority Philip Samar told Post-Courier that the MOAs are for the mines of Hidden Valley in Morobe province, Woodlark in Milne Bay province, Ok Tedi in Western province, Sinivit in East New Britain province, Simberi in New Ireland, Solwara 1 in the Bismarck Sea and Tolukuma in the Central Province. Mr Samar said the MoAs will be presented to the minister by the end of this week and he will table it to the NEC in its next sitting and the Parliament for the agreements to be ratified and signed. Once signed by the State, the agreements become binding and will supersede the current MoAs in place for each individual mines. He said all the MoAs are revised benefits agreements between the State, the host landowners and provinces, and MRA wanted better prepared and better appreciated benefits agreement between the State and stakeholders.

Mr Samar said the State will be committing millions of Kina in the agreements and his office as the agent of the State in the mining sector wanted properly gauged agreements based on the financial benefits derived from the mines before committing the State. “We had to take in consideration, how much tax the mine is paying to the State, local procurements, employment etcetera, because not all outputs of the mines are the same,” he said. He said it may have taken two to three years for the agreements to be penned, but assured the landowners and provinces that due diligence was taken into account to effect good benefit sharing agreements based on the inputs of all stakeholders and outputs of the mines. He said the Hidden Valley Mine in Morobe province or any other mines mentioned were caught up in the process as his office was doing seven MoAs at one go. “In the past, we worked on one MoA and got it finished and moved to the next, six to seven MoAs was never delivered at once to the Government.” “We hope for the MoAs to become official documents by the end of this month,” Mr Samar said.

Fiji report tables dangers of sea bed mine

Post-Courier, June 07, 2016

A REPORT just released in Fiji details the risks and pitfalls of deep sea mining in the Pacific in light of governments’ inadequate regulatory frameworks. Titled “Resource Roulette: How Deep Sea Mining and Inadequate Regulatory Frameworks Imperil the Pacific and its Peoples”, the report is an independent legal and policy analysis of the deep sea mining (DSM) legislation of 14 Pacific Island

nations, and includes in-depth case studies of DSM in Tonga, Papua New Guinea, and Fiji. The sponsors of this report are the International law firm Blue Ocean Law (BOL), and Fiji-based regional non-governmental organisation, Pacific Network on Globalisation (PANG). “The report examines not only the absence of requisite indigenous rights and environmental protections in existing legislation, but the capacity of Pacific Islands to implement and enforce laws purporting to regulate deep sea mining,” says Attorney Julian Aguon of BOL.

Insights gleaned from months of fieldwork and interviews with various commentators and experts have revealed that many countries are vastly under-resourced in terms of policing DSM activities in their waters. As a result, notes BOL Attorney Julie Hunter, countries who undertake DSM at this early, experimental stage, risk incurring great environmental and social harms likely to affect indigenous and coastal communities. Moreover, Pacific countries may garner little to no revenue, and in some cases, actually lose money from expenses associated with DSM, including high-risk equity investments and costly environmental clean-up, as well as arbitration and other legal proceedings. The report also documents impacts from exploratory DSM on PI nations’ fisheries and tourism sectors, which have already been felt in places like Tonga and PNG. These impacts are compounded by the failure to obtain the free, prior, and informed consent (FPIC) of indigenous peoples and other affected communities, and represent the opposite of a precautionary approach to hazardous industrial ventures -- both required under international law.

“Countries in the region, particularly in Melanesia, have been rushing into agreements with mining companies without bothering to consult with or obtain the FPIC of indigenous peoples or affected groups,” says PANG coordinator Maureen Penjueli. “This rush to mine is largely a result of pressure from industry and foreign governments, and has resulted in legislative frameworks favourable to mining operators, which minimise the risks of DSM and lack enforceable human rights and environmental provisions,” Ms Penjueli said. Given the high number of poorly regulated, unprofitable terrestrial mines in the region, Pacific countries are advised to adopt the cautious approach exemplified by a growing number of countries, including New Zealand, Mexico, and Australia, and enact moratoria on DSM until comprehensive scientific studies can be done on the deep ocean ecosystem.

Mt Crater reports first gold sales

Post-Courier, June 07, 2016

CRATER Gold Mining Limited (CGN) yesterday announced its first gold sale has netted A\$351,000(K 826,578.19) This follows the installation and commissioning of its new custom-made gold processing plant at the High Grade Zone (HGZ) Project at Crater Mountain. Crater Mountain is located 50 km southwest of Goroka in the Eastern Highlands Province of PNG. Formerly a tier-1 BHP asset, there has been in excess of 14,500 metres of diamond Drilling to date, the majority focussed on the Nevera prospect, which hosts the HGZ mine and Mixing Zone project. CGN announced that the processed material was largely sourced from stockpiled material derived from initial development work at the HGZ project. Gold recovered from the stockpile was from a combination of country rock and initial development along structural veins to delineate mineralised zones of higher gold tenor. The company announced that production is expected to ramp up rapidly over the next few months as new material is sourced from the higher grade material of the central high grade gold block of the HGZ mine.

With the improved understanding of the geology and controls to mineralisation, processing material is now sourced entirely from the higher grade mineralised veins resulting in improved grades and recovery of gold. It had stated that the new plant with high speed primary centrifugal concentrators as well as secondary shaking tables was more efficient than the previous test plant and it is expected that this will yield a satisfactory grade of gold. Crater Gold’s PNG General Manager Richard John-

son said “Our objective of becoming a profitable, low cost, high margin gold producer is nearing fruition, with the upgraded processing plant now up and running. “We are excited to have generated our cash-flow following the plant upgrade and, importantly, to observe that the new plant is working to expectations. A third hammer mill is currently being installed which will allow continuous operation of two mills, substantially increasing throughput going forward.” “Our focus remains on ramping up production to full capacity over the next three months, as mining focuses on the gold rich structure(s) within the ‘central high grade’ block of the HGZ,” Mr Johnson added.

MP says Telefomin in need of road access

Post-Courier, June 09, 2016

THE loss of innocent lives in the recent air crash in Kiunga has brought to light the plight of the people of Telefomin and the need for road access. Sandaun Governor Amkat Mai in his questions to the Prime Minister in Parliament yesterday said the loss of 11 people including the pilot was because his Min people depend on air travel when there is no road link to Telefomin. Governor Mai said he has held discussions with the OK Tedi Mine management and the issue of using the tax credit scheme to build a road linking Tabubil (Western Province), Telefomin (Sandaun) and into Koroba-Kopiago (Hela). He said K160 million has been approved under the tax credit scheme for the commencement of construction of this road link.

Prime Minister Peter O’Neill in his response passed his sympathy and condolence to the family of those that lost lives in the tragic crash. He said the government is committed to linking up roads throughout the country including completing the last 20 km of the Gobe to Sembirigi section of the Southern Highlands to Gulf highway. PM O’Neill said the Government has entered into an agreement with OK Tedi and a contract has been awarded to Curtain Brothers and work has started on the Tabubil to Telefomin section of the highway but work has been slow. On the question of tax credit scheme, PM O’Neill said OK Tedi had asked to increase the tax threshold to be used in community projects under the TCS but government is mindful as a major chunk of tax that government relies on in budgets.

LNG benefits to be addressed

Post-Courier, June 09, 2016

BY JEFFREY ELAPA

THE PNG LNG and the existing oil to gas project benefits and commitment will be addressed when the National Executive Council approves a joint submission, Petroleum and Energy Minister Ben Micah said. Mr Micah said there are many unattended issues that are so complicated but he led a successful consultative meetings with all the stakeholders two weeks into his appointment in March as a Minister that opened up all the issues. "The consultative meeting was like a Pandora Box - as described by the late Hela Governor Anderson Agiru. I opened the Pandora Box and found a lot of issues. To understand the complexity of the process is a challenge as there are a lot of issues from the existing oil projects of Moran, Kutubu and Gobe to the PNG LNG project," he said.

However he said he came to under the issues and did management to consult the landowners, the ADR team, the developers and all other stakeholders like the respective government department that enabled him to put together a joint submission with the Minister for Treasury Patrick Pruaitch in which the Cabinet (National Executive Council) will deliberate and give orders to address the issues. He called on all parties to work together with him to settle all outstanding issues. He was responding to questions without notice from the member for Kairiku Hiri Peter Isoaimo who wanted to know will the Government honor its commitments as per the Umbrella Benefit Sharing Agreements

in Kokopo as his people from Cape Position to Cape Suckling and Portion 125 are still waiting for the benefits although 200 shipments of LNG have been made.

Moro landowners resolve land issues

Post-Courier, June 08, 2016

BY SIBA MESA

THE Moran Huli and Moran Fasu clans of Moro in Kutubu, Southern Highlands province, have ended five days of mediation. The clans, four in total, have agreed to end the series of legal battles they had been waging for 18 years over the land ownership of Moran PDL2. Many asked why it took 18 years in the court room and hefty legal fees when it took five days of hard bargaining at mediation to solve the issues. Nine lawyers, Jason Kolo, Avia Koisen, Nemo Yalo, Sarea Soi, Anare Ona, Ignas Mambei, Mark Nasil, Sandy Tiankin (State) and Kenneth Papi (Petroleum and Energy) and representatives from each clan negotiated for hours before lead mediator Justice Ambeng Kandakasi and co-mediator Deputy Chief Magistrate Mark Pupaka ended the old legal battle once and for all. The agreement among the clans was reached on Sunday, June 5. The positive outcome of the mediation will now resolve landownership disputes not only between the Moran Huli clans and Moran Fasu Clans and also determine the distribution mechanism for the eventual distribution of the unpaid royalties and other benefits among the confirmed beneficiary clans within Moran PDL2.

They appreciated the court-ordered proceedings to share the benefits of more than K45 million that is with the Department of Petroleum and State 1997 when oil started flowing in oil heads of Moran PDL2. In 2014, the aggrieved landowning clans from Fasu Moran started proceedings at the Waigani National Court against Petroleum and Energy and the State for the release of their unpaid royalties through their umbrella Association in Aporo-Urri Resource Owners Association Inc. headed by chairman Paul Yawe. After the court became fully appreciative of the various prevailing landowner issues on the ground, it granted court orders for mediation to resolve these issues. Two major Moran Huli clans, Nano Webo headed by chairman Tony Kila and Yumbi led by Mr. Talibe Hegele and Mark Philip have been entangled in a series of legal battles over ownership of land within Central Moran PDL5 for more than 16 years. Each clan will receive their shares when all the necessary transactions are processed by the department of Petroleum and the finance department.

Deep sea mining

Ropate Valemei, The Fiji Times, June 09, 2016

IGNORANCE of deep ocean conditions has allowed supporters to characterise deep sea mining (DSM) as low-impact. This was revealed in a report by Blue Ocean Law and the Pacific Network on Globalisation on how deep sea mining and inadequate regulatory frameworks imperil the Pacific and its people. However, the report states that even a cursory look at the existing scientific literature establishes that the likely outcomes of DSM include species extinction and loss of biodiversity, sediment plumes and tailings having the potential to pollute the entire water column, the uptake of heavy metals and toxins by marine animals, including commercial fisheries and the disturbance of marine mammals from constant noise and light in the water. It also suggested that the risk of oil spills and accidents from increased vessel and surface traffic, the destruction of coral reefs through increased acidity of water, potential for induced volcanism or seismic activity and increased carbon emissions.

For nations that depend so heavily upon fisheries, ecotourism, and marine resources for their livelihoods, these risks are extreme, and any activity which threatens them should trigger the utmost

concern may also likely to occur. "Perhaps these risks would nevertheless merit consideration, were DSM really such a lucrative proposition." However, it states that the chances of Pacific Island nations seeing substantial revenue from DSM in the near future are low at best. "Its experimental nature in this early stage and long timeline mean it will most likely be many years before individual DSM sites are profitable even for their operators. "Mining ventures are notoriously high-risk and dependent on market fluctuations; there are numerous examples of high-cost mines throughout the region which fail to produce profit for either their owners or governments." For example, it says Fiji's bauxite mine, PNG's Hidden Valley and Sinivit gold mines, PNG's Ramu Nickel mine, and the Gold Ridge Mine in the Solomon Islands), instead producing only environmental contamination, conflict, and other social ills.

Furthermore, it highlights that the resource revenue brings with it the prospects of greater corruption, instability, and economic challenges such as Dutch Disease and heightened vulnerability to external shocks. While it is theoretically possible to manage some of these phenomena through transparent institutions, it says most small island states simply lack the manpower and resources to do this, despite otherwise good intentions. "DSM is being considered as the provenance of governments and industry, but the aforementioned impacts will be felt by communities — most notably, vulnerable ones, including indigenous groups, women, and children." The report further states that it is absolutely imperative — and indeed required under international law — that indigenous peoples be not only consulted, but receive adequate and objective information enabling them to either give or withhold their free, prior and informed consent to any DSM projects which may impact them.

Deep sea mining dialogue

Ropate Valemei, The Fiji Times, June 09, 2016

DESPITE Government's claim that the Ministry of Lands and Mineral Resources had conducted wide consultations with key stakeholders to formulate a Draft Policy on Deep Sea Mining (DSM), the Government consultations have not included a broad cross section of Fijian civil society, the public, or indigenous and/or coastal communities. This was revealed in a report by Blue Ocean Law and the Pacific Network on Globalisation on how deep sea mining and inadequate regulatory frameworks imperil the Pacific and its people, which was released early this week. The report notes that Fiji's Department of Environment (DOE) estimates that only about 40 per cent of educated people may be aware of DSM, and that coastal users and outlying communities are largely ignorant of what is happening with respect to DSM prospecting; the DOE reiterates the need for comprehensive consultations and awareness raising.

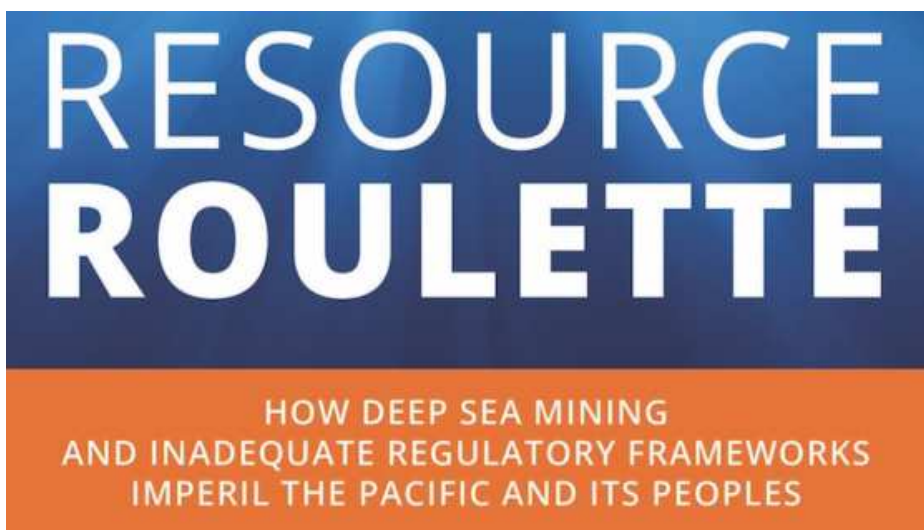
It further states that one commentator notes that the iTaukei Affairs Board, the TLTB, and the provincial and tikina councils — institutions mandated by statute to deliberate and make recommendations on developmental and other issues that impact the welfare, wellbeing, and good governance of the iTaukei or the indigenous peoples of Fiji — have not been seriously consulted regarding the development of a DSM framework. With respect to the 2013 mining decree, it adds the Ministry of Lands and Mineral Resources reportedly organised a review of the law but did not include landowners or significant civil society organisations representation in its consultations and would have proceeded with finalising the law if not for an online petition protesting the lack of consultation. Other consultations organised by the MRD in the past have been called off on short notice.

In a report staff at the Department of Mineral Resources recognises the need to both consult with and obtain consent from landowners and those communities located closest to potential DSM sites, but whether this will actually be done in the event of actual DSM remains to be seen. "Awareness of free, prior and informed consent (FPIC) throughout indigenous and local communities in Fiji is li-

mitted, and it appears that the government does not require FPIC from operators in its existing on-shore mines." In existing cases involving terrestrial mining, it says there has been no FPIC, and even meaningful consultation is often lacking. For instance, the mineral prospecting that has been going on in Namosi for more than 40 years, involving more than 15 companies, many landowners have repeatedly expressed opposition to mining, withholding their consent. "Instead of heeding these clear expressions, mining companies have approached chiefs of local villages, who are not landowners, and paid them, or in some cases directly employed them, in order to gain their consent to mining on what, essentially, is not their land."

In the case of the Bua bauxite mine, it states the agreement with the community was signed and negotiated by a third party hired by the Government, without any legal advice provided to the community; benefits from this mine are restricted to a small number of individual landowners, while the larger community receives nothing, a situation bound to create conflict as the whole community suffers the environmental impacts of the mine. The report further note that the Tikina Namosi Landowner Committee (TNLC) notes that bribes occur at multiple stages of the process, from the local level up the ministerial chain; the putative "consent" obtained from individuals who have been paid by mining companies, in addition to being illegal under Fiji's Constitution, does not equate to the FPIC of indigenous peoples or landowners. In some cases, government officials have advised that 100 per cent of landowners surveyed expressed support for mining in Namosi; however, a survey conducted by the TNLC revealed that more than 90 per cent of the community (around 984 surveyed individuals and landowners) actually opposed prospecting. Although the landowner system does necessitate more extensive consultation measures than other jurisdictions, the report notes that obtaining legitimate FPIC in Fiji is challenging.

Resource Roulette: How Experimental Seabed Mining Imperils the Pacific and its Peoples
PNG Mine Watch, 7 June 2016



Pacific Network on Globalization and Blue Ocean Law

International law firm Blue Ocean Law (BOL), and Fiji-based regional non-governmental organisation, Pacific Network on Globalisation (PANG), have released a report detailing the risks and pitfalls of deep sea mining for Pacific peoples in light of governments' inadequate regulatory frameworks.

Titled "Resource Roulette: How Deep Sea Mining and Inadequate Regulatory Frameworks Imperil the Pacific and its Peoples", the report is an independent legal and policy analysis of the deep sea mining (DSM) legislation of 14 Pacific Island nations, and includes in-depth case studies of DSM

in Tonga, Papua New Guinea, and Fiji. “The report examines not only the absence of requisite indigenous rights and environmental protections in existing legislation, but the capacity of Pacific Islands to implement and enforce laws purporting to regulate deep sea mining,” says Attorney Julian Aguon of BOL. Insights gleaned from months of fieldwork and interviews with various commentators and experts have revealed that many countries are vastly under-resourced in terms of policing DSM activities in their waters. As a result, notes BOL Attorney Julie Hunter, countries who undertake DSM at this early, experimental stage, risk incurring great environmental and social harms likely to affect indigenous and coastal communities. Moreover, Pacific countries may garner little to no revenue, and in some cases, actually lose money from expenses associated with DSM, including high-risk equity investments and costly environmental clean-up, as well as arbitration and other legal proceedings.

The report also documents impacts from exploratory DSM on PI nations’ fisheries and tourism sectors, which have already been felt in places like Tonga and PNG. These impacts are compounded by the failure to obtain the free, prior, and informed consent (FPIC) of indigenous peoples and other affected communities, and represent the opposite of a precautionary approach to hazardous industrial ventures -- both required under international law. “Countries in the region, particularly in Melanesia, have been rushing into agreements with mining companies without bothering to consult with or obtain the FPIC of indigenous peoples or affected groups,” says PANG coordinator Maureen Penjueli. This rush to mine is largely a result of pressure from industry and foreign governments, and has resulted in legislative frameworks favourable to mining operators, which minimise the risks of DSM and lack enforceable human rights and environmental provisions.”

Given the high number of poorly regulated, unprofitable terrestrial mines in the region, Pacific countries are advised to adopt the cautious approach exemplified by a growing number of countries, including New Zealand, Mexico, and Australia, and enact moratoria on DSM until comprehensive scientific studies can be done on the deep ocean ecosystem. The BOL-PANG report has been published by the University of South Pacific and is available on the online library catalogue. The report can also be accessed from the BOL and PANG websites. It is anticipated that the report will serve as a useful tool for indigenous communities, civil society organisations, and governments currently facing the prospect of DSM in their waters.

Link: <http://nabf219anw2q7dgn1rt14bu4.wpengine.netdna-cdn.com/files/2016/06/Resource-Roulette-.pdf>

London protest against seabed mining

London Mining Network, PNG Mine Watch, 7 June 2016



London Mining Network was involved in a protest on 24 May against the 5th annual seabed mining summit. We joined Australian-based Deep Sea Mining campaign and LMN member group War on Want in solidarity with communities across the Pacific who are calling for a Ban on Experimental Seabed Mining in their seas. We sent a short solidarity video [see below] to the Alliance of Solwara Warriors in The Pacific, who are resisting seabed mining. One of the main companies involved in developing seabed mining is Nautilus, a Canadian company in which London-based Anglo American is a major shareholder. There is plenty at stake if the company goes ahead with its ambitions plans. A successful project has the potential to set off a modern day gold rush to the seafloor, a prospect that troubles deep-sea scientists and environmentalists who fear the mining could destroy some of the world's most diverse and poorly understood ecosystems.

Crater Gold Mining Ltd sells first gold from Papua New Guinea mine

Proactive Investors, June 07, 2016

Crater Gold Mining Ltd has sold the first gold from stockpiled material from its HGZ mine In Papua New Guinea since commissioning of its new gold processing plant. The processed material was sold for \$351,000 was largely sourced from stockpiled material derived from initial development work at the HGZ project. CGN is expected to ramp up production rapidly over the next few months as new material is sourced from the higher grade material of the central high grade gold block of the HGZ mine. The HGZ project should become a high margin operation producing 10,000 ounces of gold in the first full year of production, at a very low all-in cash cost of below \$400 per ounce. While the focus remains on the HGZ mine, there is potential to increase the current resource of 790,000 ounces gold at the nearby Mixing Zone project at Crater Mountain. CGN had raised \$800,000 earlier this year through a placement of 10 million shares at \$0.08 each to new institutional and wholesale investors.

Bougainville Copper plans sustainable mining

The National, June 7th, 2016

THE Bougainville Copper Limited remains committed to profitable and sustainable mining at Panguna in the Autonomous Region of Bougainville, says chairman and managing director Peter Taylor. He told the company's annual meeting in Port Moresby last Wednesday that it was happy about its growing relationships in the region. "The relationship between President (John) Momis, his government, and the board and management of Bougainville Copper remains cordial," he said. "In early April, management joined a business delegation to Buka where there was an opportunity to meet with the President and a number of ministers as well as business leaders. Support for BCL was strong among the group we met. That is not to say there isn't some opposition and challenges. "A letter addressed to me from a group of ex-combatants and one to President Momis in reaction to the ABG debating the lifting of the moratorium on exploration and mining outside the BCL area suggests there are some vested interest groups who oppose the return of BCL as well as opposition to some mining related Government policy." The closure of the Panguna mine was at the centre of the violence that tore Bougainville apart in the 1990s. The Bougainville Government is keen to resume mining and Taylor said the company had engaged with local interest groups, including landowners, in Panguna. Bougainville Copper Ltd recorded a loss after tax of K37.9 million in the last financial year.

Porgera certified for proper cyanide control

Post-Courier, June 07, 2016

PORGERA gold mine, operated by Barrick Niugini Limited, has been recertified in full compliance with the International Cyanide Management Code. The recertification was announced on May 6, 2016 by the International Cyanide Management Institute on its website (www.cyanidecode.org). “ICMI has received and accepted the auditors’ detailed audit findings report, which found that the Porgera Joint Venture mine had maintained full compliance with the Cyanide Code’s Principles and Standards of Practices throughout the previous three years,” ICMI stated. PJV’s Compliance and Training Superintendent with the Processing Department, Arto Karjalainen said the recertification was demonstrative that the mine has implemented systems and processes that comply with internationally recognised standards. This means that it has been able to manage cyanide in a safe manner in the protection of human health and reduction of environmental impacts. The PJV mine was audited on a total of nine principles which were production, transportation, handling and storage, operations, decommissioning, worker safety, emergency response, training and dialogue. “PJV was required to demonstrate compliance to all of the nine principles of the Cyanide Code during the three-year period since the last recertification in January 2013. “The auditors found the operation to be fully compliant in all principles of the Cyanide Code and noted improved developments in training systems”, Arto said.

Ramu NiCo to reopen after investigations

Post-Courier, June 06, 2016

By JEFFREY ELAPA

THE Ramu nickel and cobalt mine in Madang Province will reopen soon after the independent investigation report into the death of an Asian and the injuries caused to several Papua New Guineans are determined and presented next week,” Mining Minister Byron Chan said. Mr Chan said as a result of the accident the Mineral Resource Authority stopped the operations of the mine seven weeks ago and is still closed today. The mine is operated by the Chinese Government-owned MCC with its mine operations at the Kurumbukari in the Usino-Bundi district with the slurry being piped to the coast at its refinery at Basamuk in the Rai Coast district. He said the death and the injuries caused to PNG Nationals along the pipeline needed to be investigated and the department requested for an independent investigation that has already concluded and will be presented to him and his department inspectors on Tuesday.

Mr Chan was responding to questions without notice from Usino-Bundi MP Anton Yagama who wanted to know when the operation will resume after the closure as the effects of the closure was severe as many employee and local businesses were affected. He said the accident was serious in nature and it needed to be investigated and reported in order to allow the operations to resume as safety cannot be compromised. “We understand the impact of the shutdown of the mine but the incident is serious. It was a pipeline problem that caused the death and we had to call for an independent investigation. Since it’s technical as it deals with high pressure pipes it has taken that long for the investigations to be concluded but the report will be tabled next week and we look forward to reopening the mine. “There is a possibility of reopening train one and two but the third train that caused the incident will be closed to avoid similar incidences,” Chan said.

Setback for deep sea mining plan

Pacnews, The Fiji Times, June 04, 2016

SYDNEY - Opponents of an experimental deep sea mining project in Papua New Guinea's Bismarck Sea have called on investors to withdraw their support. An alliance of communities from Madang, New Britain and New Ireland say the risks are too great. "Judging from the monster size of the machines that will be tested in our seas, there is no question that this new frontier industry will destroy our environment and communities," says Janet Tokepep from the Alliance of Solwara Warriors. "Our coastal communities live only 30 kilometres from the proposed mine site and our fishermen use the area around it daily." Canadian company Nautilus Minerals wants to tap into the mineral-rich waters to extract gold and copper.

They say the seafloor contains a copper grade of 7 per cent compared with that found in land-based mines of less than 1 per cent. The company has told Pasifik News locals have nothing to fear. "The development of the Solwara 1 Project has involved an extremely comprehensive risk assessment process," says John Elias from Nautilus. "As the first company in the world to commercially mine the seafloor, we are setting a high bar for the industry." Nautilus says the project won't release any hazardous chemicals into the water with no tailings and no blasting at the site. But the Solwara Warriors, backed by the Ocean Foundation, aren't convinced.

Fiji: Clan gives consent for mining

Serafina Silaitoga, The Fiji Times, June 04, 2016

ANOTHER landowning unit has given consent for bauxite mining in the district of Wainunu in Bua on Vanua Levu. The mataqali Nabukuni of Nadua Village is the second to give consent while mataqali Navunivudivudi of the same village had last month agreed to mining activities. A government team, chiefs and representatives from the company visited the village in Bua this week to discuss the issue. Tui Wainunu Ratu Orisi Baleitavea said the team would visit every village in the district to seek their permission. "This is actually our second round of visit to the villages. The first round of visit was done a few months ago where the team informed the villagers about details of bauxite mining," Ratu Orisi said. "We are doing this so the villagers can decide for themselves and the response has been positive so far."

Ratu Orisi said basically, the district of Wainunu had agreed to bauxite mining. "What we are doing now is completing our second round of consultation with villagers and raising awareness," he said. "We want them to fully understand the mining process and the employment opportunities it will provide and the rehab program too." At the village meetings, he said company officials spoke to villagers about the rehab program that would take place. Company geologist and manager Isireli Dagaga also told villagers about the process of bauxite mining. The team has also called on civil societies and groups that may find a problem with bauxite mining to contact them for further discussions.

Experimental seabed mining could have catastrophic climate impacts

PNG Mine Watch, 3 June 2016

New research reveals experimental seabed mining could have a devastating impact on life forms that are "literally saving the planet" and preventing a "doomsday climatic event". The research lists experimental seabed mining as a major threat to ocean life residing around hydrothermal vents which has been found to consume enormous quantities of methane that would otherwise enter the atmosphere. Ironically, Papua New Guinea, which has controversially already approved the mining

of hydrothermal vents in its territorial waters by Canadian company Nautilus Minerals, is also home to the world's first climate refugees, people forced off the Carteret islands by rising sea water levels. Papua New Guinea has also played a major part in international negotiations to reduce the climate impacts of deforestation, work that could be completely 'undermined' by its efforts to promote experimental seabed mining.



Life forms in hydrothermal vents and seeps consume 90 percent of the released methane – a greenhouse gas 25 times more potent than carbon dioxide – and keep it from entering the atmosphere.

Oregon State University | Reporting Climate Science

The hydrothermal vents and methane seeps on the ocean floor that were once thought to be geologic and biological oddities are now emerging as a major force in ocean ecosystems, marine life and global climate. However, even as researchers learn more about their role in sustaining a healthy Earth, these habitats are being threatened by a wide range of human activities, including deep-sea mining, bottom trawling and energy harvesting, scientists say in a report published in *Frontiers in Marine Science*. Researchers from Oregon State University first discovered these strange, isolated worlds on the ocean bottom 40 years ago.

These habitats surprised the scientific world with reports of hot oozing gases, sulfide chimneys, bizarre tube worms and giant crabs and mussels – life forms that were later found to eat methane and toxic sulfide. “It was immediately apparent that these hydrothermal vents were incredibly cool,” said Andrew Thurber, an assistant professor in the OSU College of Earth, Ocean and Atmospheric Sciences, and co-author on the new report. “Since then we’ve learned that these vents and seeps are much more than just some weird fauna, unique biology and strange little ecosystems. Rather than being an anomaly, they are prevalent around the world, both in the deep ocean and shallower areas. They provide an estimated 13 percent of the energy entering the deep sea, make a wide range of marine life possible, and are major players in global climate.”

Life forms in hydrothermal vents “saving the planet”

As fountains of marine life, the vents pour out gases and minerals, including sulfide, methane, hydrogen and iron – one of the limiting nutrients in the growth of plankton in large areas of the ocean. In an even more important role, the life forms in these vents and seeps consume 90 percent of the released methane and keep it from entering the atmosphere, where as a greenhouse gas it’s 25 times more potent than carbon dioxide. “We had no idea at first how important this ecological process was to global climate,” Thurber said. “Through methane consumption, these life forms are literally saving the planet. There is more methane on the ocean floor than there are other forms of fossil fuels left in the oceans, and if it were all released it would be a doomsday climatic event.” In reviewing the status of these marine geological structures and the life that lives around them, a group of

researchers from 14 international universities and organizations have outlined what's been learned in the past four decades and what forces threaten these ecosystems today. The synthesis was supported by the J.M. Kaplan fund.

These vents and seeps, and the marine life that lives there, create rocks and habitat, which in some settings can last tens of thousands of years. They release heat and energy, and form biological hot spots of diversity. They host extensive mussel and clam beds, mounds of shrimp and crab, create some prime fishing habitat and literally fertilize the ocean as zooplankton biomass and abundance increases. While the fluid flows from only a small section of the seafloor, the impact on the ocean is global. Some of the microorganisms found at these sites are being explored for their potential to help degrade oil spills, or act as a biocatalytic agent for industrial scrubbing of carbon dioxide. These systems, however, have already been damaged by human exploitation, and others are being targeted, the scientists said. Efforts are beginning to mine them for copper, zinc, lead, gold and silver. Bottom trawling is a special concern, causing physical disturbance that could interfere with seeps, affect habitat and damage other biologic linkages. Oil, gas or hydrate exploitation may damage seeps. Whaling and logging may interfere with organic matter falling to the ocean floor, which serves as habitat or stepping stones for species reliant on chemosynthetic energy sources. Waste disposal of munitions, sewage and debris may affect seeps. The range of ecosystem services these vents and seeps provide is just barely beginning to be understood, researchers said in their report. As many of these habitats fall outside of territorial waters, vent and seep conservation will require international collaboration and cooperation if they are going to continue to provide ecosystem benefits.

Contributors to this report included researchers from the Scripps Institution of Oceanography, Florida State University, the National Institute of Water and Atmospheric Research in New Zealand, University of the Azores, Temple University, Universidade de Aveiro, the U.S. Geological Survey, University of the West Indies, Dalhousie University, University of Victoria, Duke University, Ghent University and the University of Hawaii at Manoa.

Abstract

Although initially viewed as oases within a barren deep ocean, hydrothermal vents and methane seep chemosynthetic communities are now recognized to interact with surrounding ecosystems on the sea floor and in the water column, and to affect global geochemical cycles. The importance of understanding these interactions is growing as the potential rises for disturbance of the systems from oil and gas extraction, seabed mining and bottom trawling. Here we synthesize current knowledge of the nature, extent and time and space scales of vent and seep interactions with background systems. We document an expanded footprint beyond the site of local venting or seepage with respect to elemental cycling and energy flux, habitat use, trophic interactions, and connectivity. Heat and energy are released, global biogeochemical and elemental cycles are modified, and particulates are transported widely in plumes. Hard and biotic substrates produced at vents and seeps are used by "benthic background" fauna for attachment substrata, shelter, and access to food via grazing or through position in the current, while particulates and fluid fluxes modify planktonic microbial communities.

Chemosynthetic production provides nutrition to a host of benthic and planktonic heterotrophic background species through multiple horizontal and vertical transfer pathways assisted by flow, gamete release, animal movements, and succession, but these pathways remain poorly known. Shared species, genera and families indicate that ecological and evolutionary connectivity exists among vents, seeps, organic falls and background communities in the deep sea; the genetic linkages with inactive vents and seeps and background assemblages however, are practically unstudied. The waning of venting or seepage activity generates major transitions in space and time that create links to surrounding ecosystems, often with identifiable ecotones or successional stages. The nature of all

these interactions is dependent on water depth, as well as regional oceanography and biodiversity. Many ecosystem services are associated with the interactions and transitions between chemosynthetic and background ecosystems, for example carbon cycling and sequestration, fisheries production, and a host of non-market and cultural services. The quantification of the sphere of influence of vents and seeps could be beneficial to better management of deep-sea environments in the face of growing industrialization.

Unfounded mining company promises and lies pollute Frieda River mine debate

PNG Mine Watch, 3 June 2016



Will the people of the Sepik be the another people cursed by mining like those living along the Angabanga river? The Chinese government wants to build a \$3.6 billion copper and gold mine in the middle of one of Asia/Pacific's largest pristine wild river systems. The proposed Frieda River mine in Papua New Guinea's Sepik region has alarmed local people and international scientists but the mining companies involved are using unfounded promises and lies to muddy the debate. PanAust is the Australian registered, Chinese State owned company that wants to build the mine, along with another Australian company, junior partner, Highlands Pacific. Fred Hess, PanAust's managing director, has been quoted on ABC news saying: "The main driver for us is the economic benefit to an enormous number of communities who are deprived of any opportunity to gain better education or medical services because of their subsistence lifestyle."

While we might all love this compassion from the international mining industry not only is the statement completely preposterous and highly misleading it is also legally and factually incorrect. PanAust shares are owned by Guangdong Rising Assets Management Co. Ltd (GRAM), a Chinese State owned company. PanAust and its directors are under a legal obligation to deliver as much profit as possible to their shareholders - that is their primary legal duty. To claim the "main driver" for PanAust and its directors is the economic welfare of people living in the Sepik is not just plain nonsense it is untrue! It is also completely false to suggest people in the Sepik are denied access to basic education and medical services because of their subsistence lifestyles. The reason people in the Sepik lack decent basic services is that as much as half of the PNG government's annual budget is stolen by politicians, bureaucrats and lawyers in the nation's capital. This corruption is denying people a decent standard of living and it is their subsistence lifestyles that provide them with their only incomes and social security. Destroy that lifestyle with mining and then people will really be plunged into poverty!

Even if the welfare of the people living in the area around the proposed mine is a concern to the Chinese government and the various mining companies involved, PNG provides plenty of evidence that large-scale mining is not going to help the locals and there is NO documented evidence to the

contrary. The same promises of economic benefits to local people and environmental stewardship were made by Rio Tinto to the people of Bougainville before the company's Panguna mine destroyed the Jaba river and incited a war that killed as many as 20,000 people. The same promises were made by BHP Billiton before its Ok Tedi mine destroyed the Fly river system and the company belatedly confessed it should never have opened the mine in the first place. Anyone who has visited the Southern Highlands would be hard pressed to make the case that Barrick Gold's Porgera mine has raised living standards and the same is true of New Ireland where there is the huge Lihir mine, owned by Newcrest, and the Simberi mine.

Perhaps given this history, to which we should also add Misima, Tolukuma, Sinivit and Bulolo, it should not be a surprise that there are NO published studies which make the case for large-scale mining being of benefit to rural people in PNG. Indeed, whenever the returns to rural people are subject to investigation, it is found that while a few 'fat cats' may capture some benefit, most people surrender their environment for not very much at all and many suffer some terrible social consequences. The PNG government has been involved in two substantial evaluation reports on the economic impacts of mining for local people. A 2012 NRI case study on economic benefits from the Porgera mine, concluded that: "Much of the financial benefits are thought to be consumed in Port Moresby (at the Crowne Plaza), with only a few individuals having access to a large slice of the wealth". [p. xi] And, after 20 years of mining, "it is almost impossible to see where the money has gone". [p. xii] Papua New Guinea's 2014 Human Development Report states:

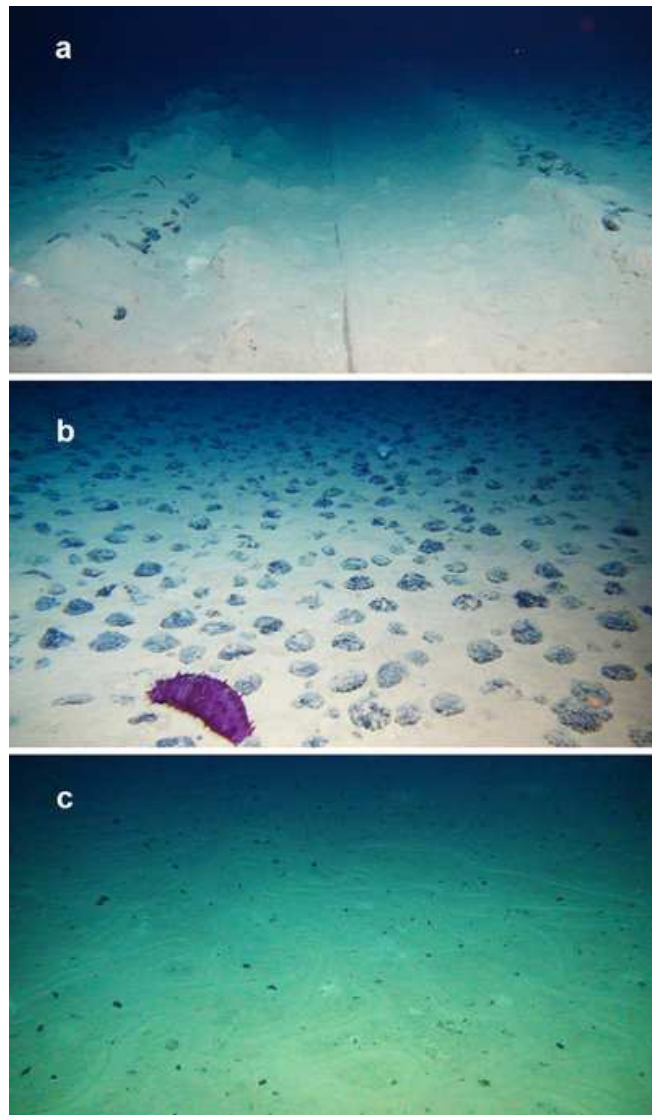
"Papua New Guinea's 40 year history of Independence has been dominated by the extractives sector. Large-scale mine and oil production ... [have] provided significant improvements in incomes and livelihoods for some. At the same time however, this production has sparked civil strife, caused massive environmental damage, arguably distorted the economy, and brought about a range of negative impacts on communities." "Despite 14 consecutive years of economic growth, there has been little change in poverty levels in the country. In fact the level of inequality in the country has increased." [p. i] Given the evidence, the onus must be on the Chinese government, PanAust and Highlands Pacific to come up with some hard evidence to support their claims that not only will the mine be environmentally safe, it will bring economic benefits to a huge number of people and communities. Until they have that evidence they should shut up with their lies and misinformation. Meanwhile in evaluating the mine's likely impacts the PNG government and the local communities should trust history rather the rosy predictions of corporate scientists and company officials. What is at risk is the Sepik River which flows 1,100 kilometres from the mountains in the centre of PNG, across a wide wetland-dotted plain to the northern coast and the lives of 100,000 plus people.

Threatened by mining, polymetallic nodules are required to preserve abyssal epifauna
Ann Vanreusel et al., nature.com, 01 June 2016

Abstract

Polymetallic nodule mining at abyssal depths in the Clarion Clipperton Fracture Zone (Eastern Central Pacific) will impact one of the most remote and least known environments on Earth. Since vast areas are being targeted by concession holders for future mining, large-scale effects of these activities are expected. Hence, insight into the fauna associated with nodules is crucial to support effective environmental management. In this study video surveys were used to compare the epifauna from sites with contrasting nodule coverage in four license areas. Results showed that epifaunal densities are more than two times higher at dense nodule coverage (>25 versus ≤ 10 individuals per 100 m^2), and that taxa such as alcyonacean and antipatharian corals are virtually absent from nodule-free areas. Furthermore, surveys conducted along tracks from trawling or experimental mining simulations up to 37 years old, suggest that the removal of epifauna is almost complete and that its full recovery is slow. By highlighting the importance of nodules for the epifaunal biodiversity of

this abyssal area, we urge for cautious consideration of the criteria for determining future preservation zones.



Examples of seafloor morphology: (a) 37-year old OMCO track (IFREMER license area); (b) Nodule landscape (IFREMER license area); (c) Nodule-free landscape (IOM area). Copyright: ROV Kiel 6000 Team/GEOMAR Kiel.

Link: <http://www.nature.com/articles/srep26808>

Karte für Abbau von Manganknollen

Forscher im Auftrag der Bundesregierung sind zurück von einer Expedition zum deutschen Manganknollen-Lizenzgebiet im Zentralpazifik. Mitgebracht haben sie eine wichtige Karte - aber auch viele offene Fragen.

Von Marlene Weiß, Süddeutsche Zeitung, 1. Juni 2016

Wissenschaftler der Bundesanstalt für Geowissenschaften und Rohstoffe (BGR) haben in einer sechswöchigen Expedition einen ersten Teil des deutschen Manganknollen-Lizenzgebiets im Zentralpazifik kartiert. Mit Videoaufnahmen bestätigten die Forscher, dass in dem 200 Quadratkilometer großen Untersuchungsgebiet fünf Millionen Tonnen der kartoffelgroßen Metallballen lagern. Neben Mangan enthalten sie Kupfer, Kobalt, Nickel und andere Rohstoffe. Mit der genauen Karte könnte nun im Prinzip ein Abbau-Test beginnen. Ob das dafür nötige Gerät - ein sogenannter Kollektor - entwickelt wird, lässt das Bundeswirtschaftsministerium noch prüfen. Bei der Expediti-

on mit dem US-Forschungsschiff *Kilo Moana* setzten die BGR-Forscher ein neues Echolot ein, um den Meeresboden in einer Auflösung von einem Meter mal einem Meter zu vermessen. Zudem wurde ein Videoschlitten in einigen Metern Höhe über den Meeresboden geschleppt. Insgesamt ist das deutsche Lizenzgebiet 75 000 Quadratkilometer groß, bis zu 750 Millionen Tonnen der Knollen werden dort vermutet. Allein die Rohstoffe in den beiden ergiebigen Teilgebieten sollen neun Milliarden Dollar wert sein.

Studien haben gezeigt, dass Eingriffe das Leben in der Tiefsee über Jahrzehnte stören können

Es ist allerdings noch weitgehend unbekannt, wie sich ein Abbau auf die Lebensgemeinschaften am Meeresgrund in mehr als vier Kilometer Tiefe auswirken würde. Untersuchungen an anderen Stellen haben gezeigt, dass Störungen noch nach Jahrzehnten eine geringere Vielfalt des Lebens in der Tiefe nach sich ziehen können. Die Erkundungslizenz der Internationalen Meeresbodenbehörde ISA verpflichtet dazu, Umweltauflagen einzuhalten. Darum waren bei der Expedition auch Biologen des Deutschen Zentrums für Marine Biodiversitätsforschung (DZMB) am Senckenberg-Institut in Wilhelmshaven dabei, die Bodenproben nahmen. Zudem wurden Messgeräte geborgen, welche die Strömung am Meeresboden über drei Jahre aufgezeichnet haben. Demnach bewegt sich das Wasser dort im Schnitt mit einer Geschwindigkeit von drei Zentimetern pro Sekunde. Mit den Daten soll nun genauer geklärt werden, wie sich der potenziell schädliche Staub verteilt, der beim Manganknollen-Abbau aufgewirbelt wird.

Large-scale PNG copper mine in sensitive Sepik region alarms environmentalists

Environmentalists say a proposed large-scale copper and gold mine in PNG's sensitive Sepik River region carries great risks to the pristine river system.

By Jemima Garrett, ABC Radio Australia, 1 June 2016

A feasibility study for the first large-scale copper and gold mine in Papua New Guinea's environmentally-sensitive Sepik River catchment suggests it will be even bigger than expected. The Sepik is one of the largest wild river systems left in the Asia Pacific. The mine owners said they would be using proven best-practice waste and pollution controls but environmentalists said the risk to the pristine Sepik and Frieda Rivers was huge. The Frieda River Copper and Gold Project is controlled by an 80:20 joint venture between Chinese-owned company PanAust and Australian Stock Exchange-listed junior Highlands Pacific. "It is important to understand what we have at Frieda River. What we are sitting on is one of the ten largest undeveloped copper deposits in the world," PanAust managing director, Fred Hess said. A PanAust announcement said its recently-completed feasibility study outlines a larger scale development than that proposed by previous owner Xstrata. That has scientists and environmentalists worried.

The Frieda River runs for 100 kilometres from the mine site in the steep, forested highlands before it joins the Sepik which flows another 600 kilometres through a wetland-dotted plain before reaching PNG's northern coast. "From a biological perspective I can hardly think of a worse place for a copper mine," said mammalogist Professor Tim Flannery, who made his name in Papua New Guinea identifying 16 mammal species previously unknown to science. "I spent a decade in that general region doing a faunal survey and was able to show that the mammal faunas in that area were the richest in all of Australasia," he said. The feasibility study said the project would build an innovative integrated waste management facility that would see both tailings and waste rock stored underwater. Monash University environmental engineering senior lecturer Dr Gavin Mudd said integrated management makes sense in that environment but the risks are big. "The total size of the resource is reported to be about 2.7 billion tonnes. That is just the ore they dig up that has got the copper and gold in it but ... there would probably be several billions of tonnes more of waste rock added to that," Dr Mudd said. "So it is certainly a very large scale mine and with that ... comes very large scale risk," he said.

Troubled history of mining in PNG

In addition, there is concern about the environmental record of mining companies in PNG. "The history of large mines on rivers in Melanesia is not very good," Professor Flannery said. "We've had the Bougainville copper mine, tremendous damage to a whole river system. You can go on Google Earth and see it today. "The Freeport mine in Irian Jaya — again, utter devastation of a river system. "The Ok Tedi mine and the Fly River — again, you can see the damage done on Google Earth. It is absolutely massive and not denied by anyone," he said. PanAust said the design for its integrated waste management facility was world's best practice and it had a proven track record in similar conditions at its mine in Laos. "While the pristine environment is there (at Frieda River) we are not looking to disturb that outside of the footprint of the mine," Mr Hess said. "The main driver for us is the economic benefit to an enormous number of communities who are deprived of any opportunity to gain better education or medical services because of their subsistence lifestyle," he said.

Water management a challenge: mining company

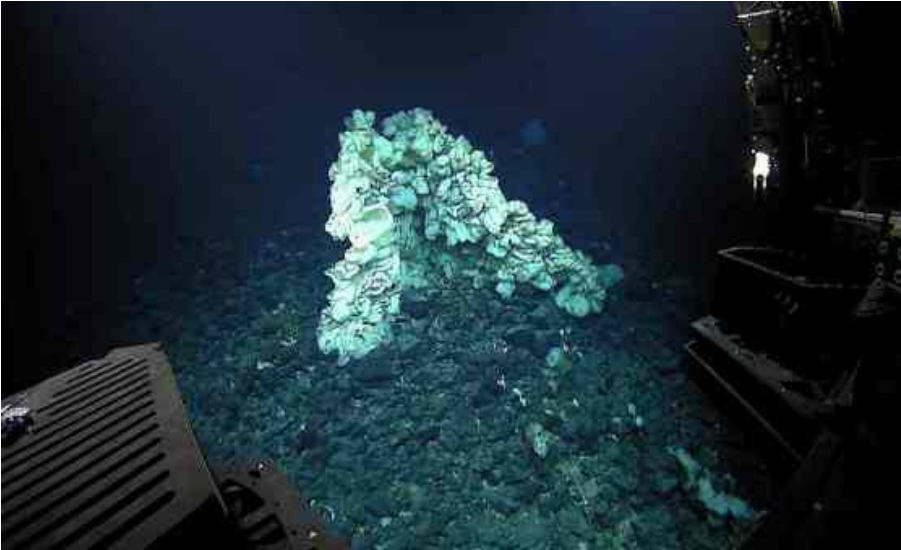
The Frieda River mine site is in a seismically-active region with very high rainfall. "These will be challenges, along with mineral sulphides, which become unstable when exposed to air and water," Dr Mudd said. "Sulphides like that can react with water and with oxygen and then ... form sulphuric acid. "That in turn ... dissolves a lot of heavy metals that can sometimes be at concentration thousands or tens of thousands of times greater than the concentrations we know will start to kill fish and algae," Dr Mudd said. "It is a very, very serious problem and it is a very widespread issue in the global mining industry." PanAust agrees seepage and water management will be a challenge but Mr Hess said the innovative waste management system aims to properly treat polluted water rather than prevent dam overflow. In fact, the overflow will be used to generate hydro-electricity. "The aim is to make sure what overflows is of an acceptable quality and meets all of the international standards," Dr Hess said. "We have done a lot of modelling ... and all of the work that we have done to date suggests that will comfortably allow us to meet the most stringent standards for discharge." PanAust's application for a special mining lease will be submitted to the PNG Government before the end of June.

Sea sponge the size of a minivan discovered in ocean depths off Hawaii

Alan Yuhas, The Guardian, 28 May 2016

- Scientists find immense creature 2,100m below surface of the ocean
- Researcher: 'It's probably in the order of centuries to millennia old'

Deep sea scientists exploring the remote waters between Hawaii and Midway atoll have found a gigantic sea sponge "about the size of a minivan" that could be the oldest animal on earth. "It's probably on the order of centuries to millennia old," lead researcher Daniel Wagner told the Guardian. The sponge, the largest on record, is "about 12ft wide and 7ft long" he said, "so about the size of a minivan". The creature was discovered about 2,100m (7,000ft) down, in a marine conservation area between north-western Hawaii and Midway. The area is largely unexplored, Wagner said, and "over 98% of the area of this monument is below 100m, so below something that we would ever be able to dive through with scuba diving". A remote-operated submersible found the sponge while exploring the depths of the Papahānaumokuākea marine park. Cast into the sub's lights, the sponge's brain-like folds appear in a pale, nearly white shade of blue. Scientists described the animal this week, in the journal *Marine Biodiversity*. Wagner said they could not be sure of the sponge's age, since the animals lack growth rings found in corals that are similar to terrestrial trees.



A team of scientists on a deep-sea expedition discovered the sponge. Photograph: AP

“Corals in similar environments have made it for 4,000 years,” he said. Through measuring the rate of growth in sponges over decades, he added, “we also know that giant sponges in shallow waters can make it more than 2,000 years.” Wagner also noted that most of the planet “lies in deep waters, the vast majority of which has never been explored”, and that “7,000 marine species, a quarter of which are found nowhere else on the planet” are known to live in Papahānaumokuākea marine park alone. “This one expedition itself came back with over 100 new species,” he said, speaking of completely new species and life previously unknown to the region. “So there’s probably many, many other things down there.”

The “pristine” depths, Wagner said, included large communities of sponges and corals along with “a whole bunch of things that are associated with them: fish hiding in their crevasses, you got crinoids, barnacles, all kinds of things that grow on top of these sponges and corals. It’s really a very diverse community.” Like the coral reefs they often grow alongside, sponges are “habitat forming” species, providing shelter, filtering sea water and removing material in the water that other animals do not eat. Sponges are ancient but primitive: they lack nervous or digestive system and rely on water flowing through their bodies to provide sustenance and clean them of waste. Christopher Kelley, a biologist at the National Oceanographic and Atmospheric Administration (NOAA) Hawaii undersea research lab, said the researchers used laser points to measure the dimensions of the bulbous animal, then compared them with the size of the submersible.



He added that sponge experts have so far been unable to identify the animal's genus. "Here's this animal that has presumably never been encountered before and it's enormous and that kind of brings up a little intrigue for deep water and what else exists down there," he said. At more than 140,000 square miles, the Papahānaumokuākea marine park is the largest conservation area in the US, and larger than every other US national park combined. Joseph Pawlik, a marine biologist at the University of North Carolina, Wilmington, said measuring the size of sponges can be difficult, given their serpentine shape and peculiar structures. By studying large barrel sponges, Pawlik has devised a method to estimate age and size based on volume. "Largest implies volume," he said. "We have some pretty substantial sponges that are barrel sponges that have huge volume."

Frieda to copy Laos plan: PanAust

The National, May 26th, 2016

By Gedion Timothy

PANAUST, the lead operator of the Frieda River copper-gold project, says its approach to managing sustainability and stakeholder engagement at its Laos operations forms the template on how it will develop the Frieda project. Managing director Dr Fred Hess said this during the release of the company's Business Review and Sustainability Report for year ending December 31. Hess said last year saw the transition of PanAust from being an Australian Securities Exchange-listed company with 13,000 shareholders to a wholly-owned subsidiary of Guangdong Rising Assets Management, a Chinese state-owned enterprise. He said the report had been prepared in accordance with the Global Reporting Initiative G4 Sustainability Reporting Guidelines including the mining and metals supplement. "The production and public release of the independently assured report is a tangible demonstration of our ongoing commitment to identifying and managing material risks and public reporting transparency," Hess said. PanAust last week announced the completion of the feasibility study for the Frieda River project. Hess said the high sustainability standards achieved at PanAust existing operations in Laos have been embraced in the Frieda River Project. "The Frieda River Project will be the first major large-scale resource project in the provinces of Sandaun and East Sepik, a least developed area of Papua New Guinea," Hess said. "It is anticipated that the project will make a substantial positive economic contribution to both provinces and Papua New Guinea as a whole."

Micah congratulates energy giants on deal

Post-Courier, May 25, 2016

PNG is looking to benefit big time from the recently announced strategic deal between Oil Search and InterOil and Oil Search and Total SA. The 100 per cent acquisition of InterOil shares by Oil Search, if successful would result in increased interest of the state through company Kumul Petroleum Holdings. This would see KPH obtaining a 20.5 percent interest in PRL 15, which contains the large Elk-Antelope discovery underpinning the proposed Papua LNG Development. KPH would also hold 20.5 per cent of PRL 39 and PPLs 474, 475, 476 and 477. This was highlighted by the Petroleum and Energy Minister Ben Micah when extending his congratulations to the companies concerned. He was referring to the proposal on Oil Search acquiring 100 per cent shares of InterOil and the separate agreement between Oil Search and Total to share InterOil's shares in PRL15 and other exploration assets. He said the creation of this major independent PNG oil and gas company will also result in increased prosperity, jobs and development for the people of PNG. "One of our nation's biggest growth opportunities, the proposed Papua LNG Project, which is underpinned by the gas fields in PRL 15, will benefit from cost efficiencies resulting from the deal.

The PNG Government will now have increased interest in one of our nation's biggest growth opportunities, the proposed Papua LNG Project, which is underpinned by the gas fields in PRL 15," he

said. Mr Micah said oil and gas exports are by far the major contributor to PNG's economy, so progress such as that announced is clearly good for our country given PNG's blessing of petroleum resources and it is appropriate for a PNG-committed, regionally significant company headquartered here in PNG. "I congratulate all those involved on putting together a deal that is highly-beneficial to all involved." Mr Micah said the country issues petroleum licences to companies that can safely and effectively find and commercialise PNG's resources, which brings benefits to the country in so many different ways. "The deals announced will create and deliver these benefits more quickly by creating synergies and efficiencies amongst the companies involved in our petroleum efforts." The PNG Government currently holds 16.8% interest in the PNG LNG Project.

Canadian Company Wants to Mine for Gold on the Bottom of the Ocean

Michael Casey, Vice News, May 24, 2016



As we drive down the empty, two-lane highway, the clusters of seaside resorts, tin-roofed homes and finely manicured lawns on this Papua New Guinea island give way to lowland rain forests and palm oil plantations. The telephone lines eventually disappear as do the satellite dishes and, within hours, the team from Nautilus Minerals is on a rutted, dirt road. Beyond the occasional sprawling logging camps on New Ireland, there are few signs the modern world has touched this part of the Asia-Pacific nation of 600 islands and 800 languages. Largely cut off from the outside world, villagers earn a few dollars each week farming small patches in the forest for sweet potatoes and coconuts and catching the occasional fish from their flimsy, dugout canoes. There is no electricity here, no toilets, no phone services, no cars. Big black pigs are a sign of status and community life revolves around ancient tribal rituals evoked by the spirit houses and shark calling, a dying tradition where villagers shake rattles made of seashells to attract sharks in the Bismarck Sea to the shores before snatching them up with their hands.

Nautilus, an exploration mining company headquartered in Toronto, has come to these villages along the coast to pitch a simple but controversial message: We can make your lives better if you let us mine the seafloor. Villagers have embraced offers of new sanitation systems, homes and bridges. But they don't fully comprehend what Nautilus wants to do starting as early as 2018 at a site 30 kilometers (18.64 miles) off the coast. Located about 1,600 meters (5,200 feet) down, the site is home to a network of hydrothermal vents and near an undersea volcano. It's a harsh environment where mineral-rich water as hot as 400 degrees Celsius (750 degrees Fahrenheit) pours through the vents, meeting icy cold water and forming the concentrations of gold, copper and other minerals that are 10 times what is found in traditional mines on land.

A race to the bottom of the sea

There is plenty at stake if the company goes ahead with its ambitions plans. A successful project has the potential to set off a modern day gold rush to the seafloor, a prospect that troubles deep-sea scientists and environmentalists who fear the mining could destroy some of the world's most diverse and poorly understood ecosystems. Because of technological advances, difficulties of mining on land and growing demand for minerals like copper, gold and zinc, scores of nations and multination-

nal conglomerates are rushing to lay claim to huge areas of the Pacific, Atlantic and Indian oceans — some sites the size of small countries. Supporters see this as a chance to tap the 70 percent of minerals not on land and transform the way we source these natural resources found in phones, computers, and other electronic devices.



A villager taking a break from preparing the evening meal in one of a string of villages that are on the front lines of the mining project. (Mike Casey)

Nautilus contends that, by drilling underwater, it can actually shrink its environmental footprint. On land, mining means displacing villages, fouling rivers with mine waste, and lopping off entire mountains to get to the minerals — none of which Nautilus says it will do. "There are a lot of resources on the seafloor. It's not inconceivable that ocean mining will be a similar thing in 20 years to what offshore oil and gas is for things like copper, nickel, cobalt, and zinc," said Nautilus CEO Mike Johnston, whose company is set to take a critical step forward when it tests its underwater mining tools off the coast of Oman in the coming months. "We can't say we are only going to do this stuff on land ... We have to look at the impact man has over the entire planet."

"If you wipe out large areas of seafloor and cause species extinction, you actually change the future of life on earth, how it evolves, if you do it on a large enough scale."

The idea of scooping up minerals from the sediments of the world's oceans has mesmerized adventurers for eons. Manganese nodules were first discovered in the late 19th century in the Kara Sea during the expedition of the H.M.S. Challenger. But it wasn't until the 1970s that anyone seriously considered tapping the ocean's riches of gold, silver, zinc, magnesium, iron, cobalt, and copper. Scientists from the Woods Hole Oceanographic Institution discovered the first hydrothermal vents in the Galapagos Rift, more than 2,500 meters (8,202 feet) down in the Pacific Ocean off the west coast of South America.

And Lockheed Martin spent three years collecting thousands of samples from the Clarion-Clipperton Zone of the Pacific Ocean. But the sector struggled to gain respect not only from suspicious governments, but the traditional mining industry. "A lot of people laughed at us," said Julian Malnic, an Australian exploration geologist who started Nautilus in the 1990s and has been described as the godfather of marine mining. "One high-profile commentator suggested we were going to use explosives. They don't even work down there," he said. "There was a big ignorance factor which everyone was in a hurry to showcase but, in my experience, when you have a new idea, you haven't got a friend in the world."



A copper iron sulfide from the bottom of the ocean from the Volcanic Unit of the Marianas Trench Marine National Monument. (Mike Casey)

While mining giant Anglo-American at one point had a small stake in Nautilus, none of the other big players have dipped their toes in the water. The sector has mostly dominated by tiny companies with names like Diamond Field International and Neptune Resources that fill their websites with glossy photos and videos of potential sites with a prospector's air of excitement at the incredible minerals waiting to be mined. No one has yet to do it on a commercially viable scale. Malnic attributed that to the cautious nature of the mining industry and the boom and bust cycle that comes with the territory. A lack of governance has also hurt efforts to mine in international waters while national governments have become increasingly alarmed over fears of potential pollution from the mining. There's reason for caution.

Scientists and environmentalists warn that the technology is unproven and that widespread mining could destroy hundreds, if not thousands of miles of hydrothermal vents systems, undersea mountains, and submarine volcanoes as well as seamounts containing deep sea coral. In doing so, the world could lose scores of species before they are even investigated by scientists as well as potential resources for new classes of drugs, cosmetics, and fuels. "If you wipe out large areas of seafloor and cause species extinction, you actually change the future of life on earth, how it evolves, if you do it on a large enough scale," said University of Hawaii's Craig Smith, a co-author on a paper in *Science* last year that called for implementing adequate environmental protections for deep sea mining. "We are doing it on terrestrial environments clearly. So far, we haven't done it on that scale in the deep sea but there is potential if things aren't managed," he added.

"A lot of people are quite shocked to find out about deep sea mining," said Helen Rosenbaum of the Deep Sea Mining Campaign, a coalition of anti-mining NGOs from the South Pacific, Australia and Canada, noting that oceans are already under threat from pollution, overfishing and climate change. "The general public aren't aware of it," she said. "This is another way in which our oceans are being hammered. They are already predicted to fail ecologically over the next couple of decades if we continue business as usual with the impacts they are already experiencing — let alone this new one."

One company's experiment

The companies themselves have had their own challenges, none more so than Nautilus. Malnic first secured rights to the site off PNG's New Ireland in 1997 after attending a presentation at Australia's

premier scientific institution, the Commonwealth Scientific and Industrial Research Organisation, on the discovery of seafloor massive sulfides at the bottom of the Bismarck Sea. He did what any good mining prospector would do. He reconstructed the seafloor maps and quickly secured exploration licenses in PNG for Solwara 1 and another site in 1997. From there, he started scouring the South Pacific for other sites, recognizing that most were within the 200-mile economic exclusion zone of these island nations. "Here were these beautiful high grade sulfides coming out of the box," said Malnic, recalling the lecture when the ore from the Bismarck Sea was put on display.

"I could see immediately the great potential," he said. "I'm still totally excited. This is the frontier for copper and zinc production in the future." The excitement, however, would give way to a decade or more of frustration and delays. Traditional mining companies wouldn't touch the project and efforts to raise capital came up against, what Malnic calls, "the second half of a nuclear winter of zero capital available for exploration and mineral projects." But the 1997-98 economic crisis was just beginning. It would be another five years before the crisis eased and a metals market, driven by the emergence of the resource-hungry Chinese economy, started recovering. Soon enough, the suitors started knocking on Nautilus' doors. Yet even as the financing began flowing, the company struggled. Malnic left in 2006 and the company went through two more CEOs before settling on Johnston. Its stock, which debuted on the Toronto Stock Exchange, reached a high of \$4.38 in 2008 before falling rapidly to 14 cents.

At the same time, the company learned just how hard it can be to operate in a tribal society where minerals like gold and copper are abundant — but so is corruption, angry landowners, and activists increasingly fearful about the environmental damage caused by mining. It didn't help that the company was arriving on the back of several high profile mining disasters in PNG, including the spillage of tens of millions tons of waste from the Ok Tedi gold and copper mine that polluted a river on the island that tens of thousands depend on for water. "They spent \$400 million and didn't come up with a mine," said Malnic — money he claims mostly went to scientific studies and other fieldwork. "It was just catastrophic. They could have been mining twice over for that much and they came away with a bunch of studies and some contracts. It's unforgivable."

Nautilus and the PNG government also fell out over the government's failure to contribute its share of developing cost to the project, forcing the dispute into court and almost killing the project. The unstable government — at one point featuring two, dueling prime ministers — didn't help. But the two sides resolved their differences and the government got a stake in the project's potentially lucrative intellectual property. The settlement has the easy-going Johnston — a New Zealander who often favors a dress shirt and jeans to a suit and throws in the occasional cuss word when making a point — more bullish than he has been in years. "When we were in the dispute with the government, a lot of people were sitting on the sidelines watching," said Johnston, who has been credited with repairing relations between the two sides and has been known to spend days in villages counter rumors and allegations against the company. "Now that the dispute is finished, there is a lot of interest again. A lot of people want to see us go a little bit further."

A rush to get a piece of the action

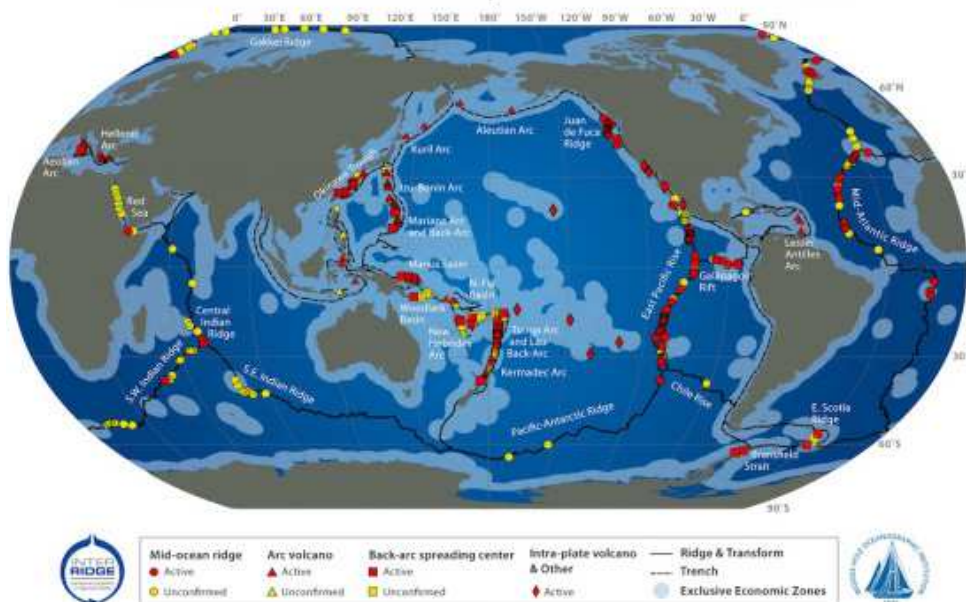
Some of the greatest interest in seabed mining in the past few years has been around the Clarion Clipperton zone, an area about 80 percent the size of the contiguous United States in the Pacific between Mexico and Hawaii. By some estimates, it contains an estimated 62 billion tons of nickel, copper and cobalt in bowling ball-sized nuggets that litter the seafloor. Because these are in international waters, the International Seabed Authority (ISA), a tiny U.N.-affiliated body with offices in Jamaica, is tasked with issuing licenses to explore these and other areas. Just in the past four years through 2015, the number of exploration license has jumped from 7 in 2006, to 27 in an area that encompasses 1.4 million square kilometers.

"Right now, we don't know what will happen when mining starts. We do know the animals living at the sites that are mined will be eradicated but we don't know whether or how quickly those communities can become reestablished."

Increasingly, companies backed by Russia, Japan, and China, as well as tiny island nations like Tonga and Kiribati, are taking out permits to explore huge sections of the area. One of the biggest private firms, UK Seabed Resources — a subsidiary of Lockheed Martin UK — is prospecting for minerals in a 22,300 square mile area of the Clarion Clipperton zone and says that could bring \$60 billion to the UK economy over a 30-year period. "What we have seen in the past few years is a huge explosion in activity," said Michael Lodge, the deputy to the ISA's secretary-general and legal counsel. "It shows an increasing interest in the sector and prospects for the sector. There are two or three things converging — developments in technology that makes it more realistic and the cost of traditional mineral projects is becoming more expensive and difficult to source," he said.

"You are reaching a point of equilibrium. Although seabed mining is terribly expensive and very high risk, it's competitive with the cost of setting up a source on land. Also, people are looking for long-term sources of very high grade minerals." For now, much of the action is on building the mining equipment in places like the United States and United Kingdom that has been adapted from technology already in use in the oil and gas, dredging and coal industries. Once it starts, the plans call for lowering several remote-controlled, robotic cutting machines to the seafloor. Mineral-laced rocks will be carved from the seafloor and sent up through riser pipes and lifting systems to a tanker-like ship waiting on the surface. The excess water from the ore will be returned to the sea bottom and the minerals sent to China's state-owned Tongling Nonferrous Metals Group.

Global Distribution of Hydrothermal Vent Fields



Map of hydrothermal vents (S. Beaulieu, K. Joyce, and S.A. Soule (WHOI), 2010; funding from InterRidge and Morss Colloquium Program at WHOI)

More than just minerals in the deep

Stace Beaulieu, a biological oceanographer at Woods Hole who has spent the past 20 years studying the biodiversity and abundance of life on the ocean's seafloor, has watched this growing interest in deep sea mining warily. "Right now, we don't know what will happen when mining starts," she said. "We do know the animals living at the sites that are mined will be eradicated but we don't know whether or how quickly those communities can become reestablished. That uncertainty is why a lot of deep-sea scientists have great concern about mining." Like the other scientists in Lauren Mullineaux's lab at Woods Hole who study the world's hydrothermal vents and other seafloor habitats,

the wiry and energetic Beaulieu is passionate about the deep sea. If she isn't gearing up for a weeks-long journey on a research vessel, the avid runner and biker is hunkered down in her tiny, crowded lab. It's filled with mementos of past trips including nets and foot-long bottles containing red-tipped tube worms and dozens of preserved samples in ethanol. Just down the road from the lab is the tranquil, ocean-side community of Woods Hole, with its lobster shack, organic coffee shops, and a marina that looks out on Vineyard Sound.

Unlike other scientists who may study the seafloor's large creatures like clams, crabs, or tubeworms, Beaulieu and her lab-mates are more concerned with the macro fauna — the deep sea invertebrate communities including snails, smaller worms, and crustaceans. They are among the most diverse animals on the seafloor and play a critical role in the food web. "We want to find early life stages of animals that live on the sea floor," she said, holding up a pinky-sized tube containing samples that came from a 2010 trip to the Mariana Arc and the site of an erupting submarine volcano. "Now, they are mostly transparent and white. In life, they have beautiful colors. They are much more beautiful alive." When the first hydrothermal vents were discovered in 1977, scientists were shocked with what they saw. Instead of flat, featureless desert, they found vents teeming with tubeworms, mussels, clams, crabs, snails and shrimp. "The thing that caught everyone's attention when they first discovered the vents was the large numbers and large volumes and large biomass in the animals and communities," said Mullineaux, who has been on 30 cruises and made nearly 40 dives as part of her work studying the dispersal of larvae of benthic invertebrates and their return to the sea floor.



A researcher examining samples under a microscope taking from hydrothermal vents in Lauren Mullineaux's lab at Woods Hole. (Mike Casey)

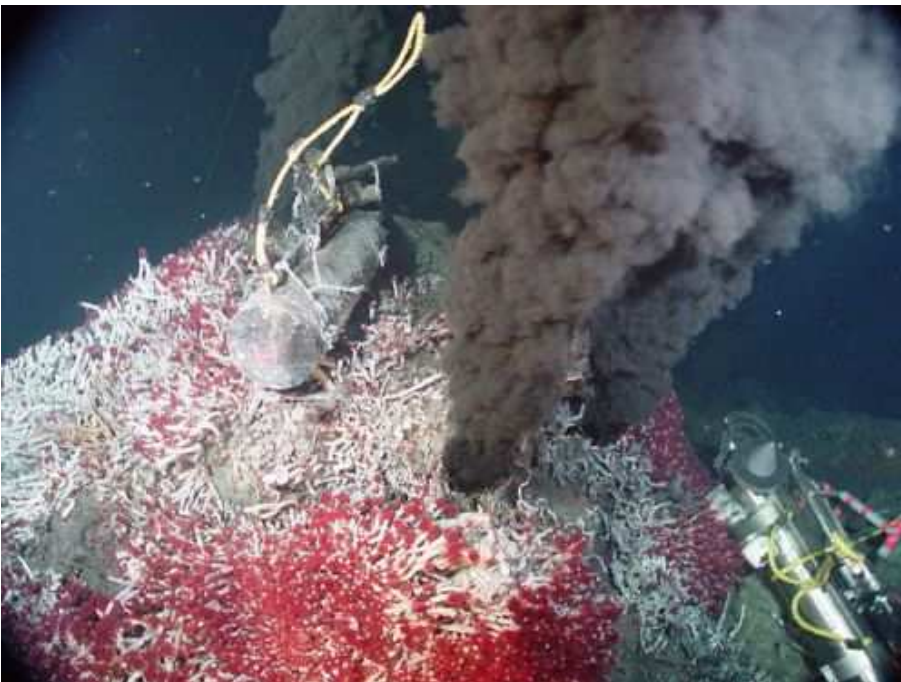
"This was a huge surprise because, at that time, we thought deep sea communities were being fed by small particles that drifted down from the sea surface where they were produced by photosynthesis," she said. "Clearly, that production by photosynthesis was not sufficient to fuel these amazing robust communities that we found on the seafloor." Mullineaux said they realized something else entirely was happening — a process called chemosynthesis, where microbes convert chemicals dissolved in the vent fluids into usable energy. Since then, hundreds of vents have been discovered and thousands more are believed out there. Many are home to strange creatures that go to unusual lengths to thrive in these toxic environments. One of the strangest is a family of tubeworms called Siboglinidae that have no mouth or gut and "get all their sustenance by these endosymbiotic microbes that live inside them."

In the Clarion Clipperton zone, scientists are just beginning to explore its rolling seafloors which have higher diversity than vents, but are mostly dominated by tiny creatures living in the sediment. "I'm just working on the data now and the samples are some of the most diverse, have some of the highest species diversity of samples ever collected from the sea floor," Smith said, who is doing baseline surveys for UK Seabed Resources, noting that each of these quarter square meter samples contain upwards of 60 species of polychaete worms, crustaceans, mollusks and snails. "These are animals living in the sediment that you don't normally see," he said. "Every sample we bring up has dozens of new species. In fact, 80 percent to 90 percent of the animals, the species we bring up are new to science. People get all excited about the discovery of a new species in a terrestrial environment. We are bringing up hundreds of them on every cruise."

To mine or not to mine

When he is not at sea, Smith is part of a group of scientists helping to shape environmental measures being drawn up by ISA. Unlike environmentalists who want an all-out ban on deep sea mining, Smith and others are more pragmatic, arguing mining will happen at some point, so they are trying to determine where it can and can't go. "I think slowing down is an excellent idea," said Lisa Levin, who is with the Scripps Institution of Oceanography and who co-founded the Deep Ocean Stewardship Initiative, which among other things advises on the use of resources in the deep ocean. "We should be slowing down and collecting relevant information that is needed to make a decision. In most cases, I don't think we have it. If a moratorium is a way to slow down, that works." What makes drawing up these regulations challenging, Levin said, is that each type of mining would take place in ecosystems that "operate on different time and space scales."

"Some are small and patchy. Some are heavily disturbed and recover quickly. Some are vast and processes are very slow. Some animals live for hundred or thousands of years and others live for 10 years," Levin said. "So each system requires a careful look at the dynamics and the composition and the vulnerability of those ecosystems to mining impacts." Duke University's Cindy Lee Van Dover and other scientists have suggested staggering the mining activity in a certain area, as well as limiting mining to inactive vents that could be easier to mine, but also less important environmentally. Companies should also consider setting aside areas within their sites so the mining impacts can be evaluated and relocating species deemed ecologically significant.



The Sully Vent in the Main Endeavour Vent Field of the northeastern Pacific Ocean. (NOAA)

But with no past experience to go on, it can be a struggle for scientists to know where to draw the line on where mining can take place. Nautilus, for example, may be starting with Solwara I, but it has far greater ambitions. It has more than 500,000 square kilometers (310,686 miles) of exploration acreage in the Western Pacific, including some 19 sites in the Bismarck. It also has sites in Tonga, Fiji, Vanuatu, Solomon Islands, as well as international waters in the eastern Pacific. "The cumulative impacts for any of the mining scenario is what is really critical," Van Dover said. "If Nautilus only mines one site, no big deal. If they mine two sites, we don't know. Three sites, we don't know where the tipping is, where does it matter in terms of the connectivity of the animals and when will you lose not just species diversity but ecosystem function and services."

Short of wiping out the tube worms, bivalves, and gastropods living around the Nautilus vents, even mining on a small scale has the potential for disaster. There also are concerns the project could change the chemistry near the vent sites and produce toxic plumes that could bury organisms and clog the feeding apparatus of sea creatures. "There is no way to know where the plume is going to go until they make it," said Van Dover, who has in the past studied the Nautilus site. "We haven't seen the mining tools in action. We don't know how much sediment they are going to move."

Islanders — Guinea pigs or pioneers?

Opponents, who for several years have waged a global campaign against the Nautilus project, paint a far grimmer picture. In a series of detailed reports, they warn that storms, spills, or technical snafus could spark a disaster that would wipe out fisheries, destroy some of the world's most diverse coral reefs, and pollute the waters of coastal communities across the South Pacific. "People are afraid because they know there will be damage on our reefs, affecting our marine life," said David Bekeman, a primary school teacher in Komalu, a village near the mine site. "Nautilus is telling us there will be no damage. We definitely know there will be damage but we don't have the power to stop anyone from doing anything in the sea." While Nautilus is building latrines and handing out textbooks, a loose-knit and cash-strapped group of opponents that includes young activists, school teachers, church leaders, and a retired army colonel have tried to raise awareness in the international community and the impacted villages.



A young child in Komalu where villagers fear deep sea mining may disrupt traditional ways of life. (Mike Casey)

"We aren't anti-development but we are saying to the government it must act responsibly," said William Bartley, a retired colonel who opposed the project. "Papua New Guinea is not ready for this. They have not even told us what actions they would take supposing an environmental disaster does occur." Johnston dismisses the criticism from "outside groups" that "don't want this to happen" and

insists his project will only cause harm to the fauna at the mine site. "I've heard a lot of that stuff and a lot of that is misinformation. I've heard the one about poisoning the water. I don't even know where that comes from," Johnston said.

"It makes me quite angry when I see outside NGOs telling villagers that is going to happen because the river is really important to them." In these villages of mostly bamboo huts surrounded by idyllic views of the rocky coastline, the villagers are left with competing versions of the future. Will mining activities bring development or destruction to their lands? The company is also a regular presence in the villages, conducting surveys and laying the groundwork for its first development projects. Like so many mining companies, they are often tasked with doing the job of the government — which appears to have largely left these remote villagers to fend for themselves. And with little investment until now, even the most basic things need the company's attention.



A government office building in the Papua New Guinea town of Kavieng, the capital of New Ireland where the mining will take place. The capital, located on Balgai Bay, is several hours from the mining site. (Mike Casey)

The schools, for example, lack textbooks, water and toilets — forcing children to relieve themselves in rivers and exposing girls to sexual harassment and even rape. The classrooms have almost nothing beyond a chalkboard. Any students must walk hours, if not an entire day, to reach them. The medical clinics — also hours away by foot — are often shuttered due to a lack of medicine. As a result, some of the most common causes of death in the villages are childbirth as well as treatable diseases like malaria and respiratory ailments, according to surveys done by Nautilus. In the villages, there are no shops or any commercial activity, since the mountain roads are often impassable during heavy rains.

The only sign of tourism is an abandoned guest house built by an Israeli adventurer. Most farmers, meanwhile, have abandoned cash crops like coconuts in favor of staples like yams, since it can be such a challenge to get them to markets. The talk from Nautilus of fighting diseases and easing hunger resonates with villagers like Jenny Gebo, who in her tattered blouse and skirt laments how it takes her all day just to gather enough vegetables to cook the evening meal. Standing over a smoky fire, she was preparing a traditional Papuan meal called mumu, in which the food is soaked in coconut, wrapped in banana leaves, and cooked over a pit. "We are finding it hard now to help our families," said Gebo, a mother of four from Komalu, one of the closest villages to the mining site. "The mining could help our families. But if the mining comes and the seas get polluted, we won't get the fresh fish."



Villager Henry Tabu hopes that improvements touted by Nautilus will help him and his family. (Mike Casey)

Out in the forest a few miles from the village, Henry Tabu was tending to fires he had lit to clear his land. As the flames reached several feet in the air and the smoke seared his eyes, Tabu, bare-chested and wearing a cross, recalled how he didn't earn enough money to send all his five children to school. He complained that his tiny plot barely was enough to feed his family. "We are trying our best to look after our family," Tabu said, as his children stoked the fire and a puppy whined in the background. "The project will come. It will help in some ways to make people live better. Maybe it will help me look after my family."

New firm repairs Tolukuma mine

The National, May 24th, 2016

THE Asidokona Mining Resources, the new operator of the Tolukuma mine, is rehabilitating the mine, director Vincent Siow says. Siow said an independent mining consultant had been engaged to assist in the process. The mine was handed over by Petromin Holdings Limited (now Kumul Mineral Holdings Limited) last December. "A short five months have transpired and we have been busy trying to rehabilitate the mine," Siow said. He said the mine was flooded because the previous owner had stopped dewatering it. "Realising the gravity of the situation, and having being selected as the preferred bidder for the mine, we arranged with Petromin (previous owner) in September 2015 to allow us to commence dewatering the mine and we have been dewatering it since then," he said. "To date, we are yet to reach the areas where Petromin last mined. "We expect to do so within the next couple of months.

"We have engaged an independent mining consultant to assist with the mining programmes and will undertake some resource drilling and other works necessary to estimate the life of the mine for the mining lease." Siow said the company would then be able to make plans accordingly. "Planning for production is dependent on the outcome of the resources ascertained and indicated from the resource drilling programmes," he said. "We expect to be in a position to ascertain the resources

available to commence full scale production beginning 2017. “In the interim, there will be test production runs to assess the equipment status and operational shortcomings which we need to address before commencing efficient production.” Meanwhile, he said the company had over 238 employees and 150 contractors providing other services. “A marginal increase is expected when we start full production,” he said. “We have also embarked on some exploration studies on a couple of our exploration leases and in the course of which created a road.”

Rubber industry still flourishing in Western Province

Post-Courier, May 24, 2016

NORTH Fly Rubber Limited is still confident that the industry in the Western Province will continue to flourish and sustain its farmers. For the first time since the beginning of the drought last year, the NRFL factory located in Kiunga, has once again begun exporting its A-grade processed rubber. Early this year, NFRL was able to send 19 containers of certified rubber to Port Moresby for shipping to Malaysia. According to NFRL’s factory manager Renagi Lohia who has 31 years’ experience working in the field as an extension officer, North Fly rubber is one of the only two companies in the country exporting processed PNGCR-10 rubber. He added that despite the pressure from the low world market, the prolonged dry spell affecting growers, and the ongoing battle on trust funds, of which a portion had been earmarked to help with freight charges North Fly Rubber still maintained the rubber blocks.

He said for far flung villages, accessibility is a major impeding issue. However, he said the people remained proactive. An experience involves rubber purchased from growers in the Oriomo-Bituri area which the local people put in a shed since 2006 which the company was this year only able to buy and collect. He said the company’s boat arrived from Suki, Balimo and Lake Murray last week with a load of rubber weighing 118 tonnes which will enable the factory meet production targets. He said growers there were paid K118, 000 from a K1 per kg price. Mr Lohia acknowledged team of 18 men at the factory, who were the heart and soul of the demanding industry. He said in reality, the industry has dwindled and the cream of Papua New Guineas rubber industry have either retired or have left for greener pastures.

He said, with pride and respect, that since joining that factory division of NFRL he had learnt a lot working with them, most of whom have families that own rubber blocks, and have not been able to receive formal education further than grade 10. He said it was through their hard work and dedication, that North Fly Rubber can affirm that they are giving the best the rubber industry of Papua New Guinea has to offer. He added that with his extensive experience and he was confident to say that the rubber industry at the moment was the best option for the Western Province as far as sustainable development was concerned. He urged the think-tanks of the Province to reflect on the realities of life for the Western Province people and invest their support into maintaining and encouraging this industry which has managed to support and sustain more than 100, 000 people throughout the province.

Nautilus: ‘Solwara 1 seabed mine is an experiment’

PNG Mine Watch, 24 May 2016

Nautilus Minerals has finally admitted it will use Solwara 1 as the test site for an expensive and potentially destructive experiment in which the potential victims are the rich marine environment of the Bismarck sea and the indigenous communities living along its coastline. In its 2015 [Annual Information Form](#) [pdf 1.2MB], submitted to Canadian regulators in March and available on the company website, Nautilus says it does not know if its plans for seabed mining are financially or

technically feasible or what the environmental and social impacts will be. There are '*significant risks*' says the company and it can give 'no assurance', but rather than conducting further studies, it is pressing ahead with Solwara 1 to try and "demonstrate that seafloor resource development is commercially viable and environmentally sustainable". (p24) Nautilus warns 'there is significant risk with this approach and no assurance can be given that the system will successfully demonstrate commercial viability' .(p52) Nautilus admits:

- It is going ahead with the mine despite '*not having completed and not intending to complete any preliminary economic assessment, pre-feasibility study or feasibility study*' (p52)
- It does not know if its technology will work in the sub-sea conditions or if it will work with the materials to be mined or even if the different technologies will work together in a single application (p52)
- "*Performance, availability, reliability, maintenance, wear and life of equipment are unknown*" (p54)
- Its approach is '*to first test the operational viability of the whole production system at Solwara 1 in order to demonstrate if these technologies can cut and recover the minerals*' (p52)

Amazingly, even if the mining equipment does actually work, Nautilus still doesn't know if there are any commercial quantities of minerals to be recovered. In the Information Form, Nautilus admits it has not even drilled the seabed, the resource 'has only essentially been surface sampled'. Without proper testing by drilling, the published results "should be considered of low [sic] confidence" (p46). Perhaps even more damning, Nautilus admits it does not know what the actual impacts of the mining operations will be on the environment (p61). Given these startling and damning admissions, will the Papua New Guinea authorities now step in and stop this giant experiment with people's lives, livelihoods, culture and environment?

Allegations Of Bribery By Mining Company In Solomons Denied

By Bradford Theonomi

HONIARA, Solomon Islands (Solomon Star, May 23, 2016) – A land acquisition officer has dismissed claims AU Capital Mining Limited bribed landowners in Temotu to acquire its prospecting licence to seek minerals on their land. AU Capital Mining, an Australia company, held two tenements under its prospecting licence – one Temotu and another in Choiseul. Recently Iron Mountain Mining, a different company, obtained shares in AU Capital by signing an option agreement to acquire 50 percent stake. This arrangement was done outside the Mines Ministry processes and is deemed illegal. A spokesman for Nende Tribal Landowners, Stanley Bade, claimed AU Capital Mining Limited's involvement in the process to acquire its prospecting licence was questionable. "The procedures followed to acquire the letter of intent and the prospecting licences issued by the ministry raised a lot of questions. "The processes were very dubious in nature and it showed out clearly in the tenement mapping," Bade said.

But Cromuel Kokota, who carried out the land acquisition process, said the processes he followed are according to the Mines and Minerals Act. "There is nothing dubious in the process," he added. The one time mines director said there have been proper awareness and hearings done with communities at Nende and the feedback was straight forward. "No money was involved as alleged," Kokota said. He explained what was given to tribal community leaders was just tokens and he was clear about that to the communities, and the mining company about the token of appreciation. "If some of the landowners disagreed, they have the right to challenge it in court. But they also need to know that this is still prospecting; the company is not making any money yet." He clarified that the mapping of the earmarked tenement is something different.

“The marked tenements should be limited to the signed area, however what has appeared in the map is beyond and that is probably for the company’s interest in the future. “The possibility with interest of the company moving to the eastern part of Nende is on the pipeline, but the fact is it’s only on the western part that has been acquired,” he said. Kokoto said all throughout the awareness processes it has been made clear what roles the government, company and the stakeholders involve play. Nothing was hidden and the communities were not forced to sign with money given, it was made open for them to decide and that’s exactly what was done. “There is nothing dubious about the whole process. It was done openly and with transparency.”

Landowners oppose gas piping

The National, May 23rd, 2016

A LANDOWNER company in Gulf says it will not allow gas pipes to pass through its land and on to Caution Bay near Port Moresby for shipment overseas. Gulf LNG Elk-Antelope Bluff Landowners Association chairman Tom Lahio Toutore said they were against the piping of gas from Gulf to Caution Bay. Toutore said although the people of Gulf had welcomed the visit by Total SA chief executive officer Patrick Pouyanne last month, there were many issues the developer and its partners Oil Search and InterOil still needed to address. He said they had read comments by Petroleum Minister Ben Micah in Singapore that the location of the processing plant had already been confirmed for Caution Bay. He said Pouyanne too had announced that the processing facility plant would be at Caution Bay in Central. “I call on the Prime Minister, Minister for Petroleum and the Governor of Gulf to tell the people of Gulf their position and status in relation to this petroleum development project in Gulf,” Toutore said.

Oil Search to buy InterOil at K7bn

Post-Courier, May 23, 2016

BY ALEXANDER RHEENEY and ROSALYN ALBANIÉL

OIL Search is set to acquire 100 per cent of InterOil at a cost of US\$2.2 billion (K7 billion). The announcement of this transaction surprisingly comes just over a week after Oil Search Managing Director Peter Botten brushed aside reports that had been published in the Australian press, of any purported moves by Oil Search to buy into InterOil. Mr Botten had told reporters in Port Moresby and soon after the company had convened its Annual General Meeting (AGM), that while he was aware of these reports that they were just speculations. The Sunday Morning Herald, had just prior to the Oil Search AGM repeated on-going reports that InterOil, which is led by Michael Hession, had been involved in serious discussions with InterOil. The Sunday Morning Herald had gone on to state that these discussions had increased speculations that the US and French energy giants- ExxonMobil and Total SA may be moved to bid.

Mr Botten in responding had said that he was aware of the reports but had hailed them as “speculations”. However, in a turn of events last Friday, Oil Search and InterOil had announced this transaction to be in order with the unanimous backing of both company boards. With InterOil yet to convene its AGM, its board had recommended that its shareholders approve this transaction. It is highly that this may not be without some opposition from the company’s founder and former chief executive officer Phil Mulacek. Under the deal Oil Search is offering 8.05 of its shares plus a contingent value right (CVR) for each InterOil share which it stated was valued at US\$40.25 per InterOil share. Meanwhile Oil Search has also signed off on a Memorandum of Agreement (MOA) under which Oil Search will sell to Total for cash, 60 per cent of the Interest acquired from InterOil in Petroleum Retention License 15 (PRL-15) which comprises the Elk-Antelope fields. Further, 62 per cent of In-

terOil's exploration assets subject to closing of the InterOil transaction and entry into definitive documentation with Total thereby de-risking the acquisition of InterOil.

Following completion of the InterOil transaction and the Total MOU, Oil Search's interest in the Papua LNG Project will increase to 29 per cent while Total's stake will increase to 48.1 per cent. This is assuming the PNG Government exercises its back-in rights of 22.5 per cent. "The company believes the acquisition of InterOil represents an excellent outcome for InterOil and Oil Search shareholders and enables both companies to benefit from the value created through the commercialisation of gas resources in PRL 15. "We look forward to welcoming InterOil shareholders onto our register and together, continuing to grow in PNG," Oil Search Chairman Richard Lee had said. InterOil's Chairman Chris Finlayson had also in commenting said the board had thoroughly considered this transaction and had believed it would deliver significant value to its shareholders through the opportunity to benefit from ownership of shares in the combined entity at a significant implied premium to the current InterOil share-price. This is while also maintaining exposure to the value upside from the certification of Elk-Antelope.

Chinese firm eyes Porgera mine

Post-Courier, May 23, 2016

ZIJIN Mining Group Company Limited (Zijin) is stepping up its efforts to expand its business outside China. Already it has invested in eight countries which included the Democratic Republic of Congo in Africa for the Kamao Copper Project and Papua New Guinea (PNG) through the Porgera gold mine. This is according to the chairman of Zijin Group Jinghe Chen, who led a delegation that visited the Barrick (Niugini) Limited ("BNL")-operated Porgera gold mine from 5 to 7 May this year. Mr Chen is also the chairman of the newly-formed six-member BNL Board. Those accompanying Mr Chen had included BNL Director and Executive Vice President for Zijin Qixue Fang. The others that represented Zijin were: Deputy General Manager and Legal Counsel of Gold Mountains (H.K.) International Mining Co. Ltd (Zijin's Hong Kong subsidiary) Xuefeng Wu, Senior Mining Engineer for overseas operations Zaidong Sun, General Manager for Mining and Metallurgical Research Institute of Zijin Chun Wang, and the Deputy Chief Engineer Yi Fu. Mr Chen said in Congo, Zijin bought 49.5 per cent stake in Kamao Holding Limited. Kamao Holding is a subsidiary company of Canada's Ivanhoe Mines Ltd. At Porgera, the Zijin group holds 47.5 per cent stake in BNL with the remaining 47.5 per cent held by Barrick Gold Corporation ("Barrick"), together is 95 per cent stake in the Porgera Joint Venture (PJV). The remaining 5 percent is held by Mineral Resources Enga (MRE) Ltd, a consortium of Enga Provincial Government (2.5 per cent) and the Porgera landowners (2.5 per cent).

O'Neill welcomes Oil Search contract

Post-Courier, May 23, 2016

THE Prime Minister Peter O'Neill has welcomed the agreement on Oil Search taking over 100 per cent of InterOil's gas interests in Papua New Guinea. Both Oil Search and InterOil boards have agreed on the transition to be executed under the terms of a memorandum of understanding which they have announced to the Australian Stock Exchange. Mr O'Neill also highlighted the benefit of the execution of an MoU between Oil Search and France giant Total for a back-to-back sale of Oil Search's interest acquired to Total following the completion of the InterOil acquisition. "This acquisition will provide cost savings and efficiencies for our nation's greatest growth opportunities, which will directly benefit the people of Papua New Guinea," he said in a statement at the weekend. "A combined Oil Search-InterOil entity creates a Papua New Guinea oil and gas company of regional significance.

“As a shareholder of this company, the Papua New Guinea Government will benefit from its increased influence and growth opportunities. “Co-operation between our two large LNG projects, the expansion of the PNG LNG Project and the development of Papua LNG, is in the best interests of our nation. “These arrangements present a pathway to collaboration and possible integration of the projects, in which both Oil Search and the Papua New Guinea Government would hold influential stakes. “The memorandum of understanding between Total and Oil Search will see both companies increase their interest in Papua LNG. “This will carry an additional commitment from these companies to develop and commercialise this project in a very timely manner, expediting the inflow of revenue.”

Chinese Company Ups Value Of Huge PNG Mining Project

Copper and gold project doubles construction cost estimate

WELLINGTON, New Zealand (Radio New Zealand International, May 21, 2016) – A Chinese conglomerate planning to develop the Frieda River copper and gold project in Papua New Guinea has more than doubled the estimated construction cost. It said to boost production capacity the mine would cost \$US 3.6 billion to develop. State-owned Guangdong Rising Assets Management Co Ltd bought into Frieda River in East Sepik in 2015, in line with moves by Chinese companies to pursue offshore copper mines. A spokesperson for its subsidiary, PanAust, Joe Walsh, said the project still had to gain formal financing and no date had been set for the start of construction. The company estimates Frieda River may contain as much as 12 million tons of copper and 19 million ounces of gold. Copper has been earmarked as one of the few growth markets for mining companies stung by a slowdown in metals directly related to steelmaking, such as iron ore and nickel. Reuters reports copper is languishing near its lowest price in seven years due to a supply glut but it says with fewer discoveries, however, miners exploiting new lodes hope by the time they are up and running, the market will have turned.

Fiji: Green light for mining

Serafina Silaitoga, The Fiji Times, May 20, 2016

A LANDOWNING unit in Wainunu, Bua on Vanua Levu has given consent for bauxite mining in the district. Although the district meeting held at Daria Village this week did not identify the mataqali, Tui Wainunu Ratu Orisi Baleitavea confirmed that a landowning unit had given its approval. In an interview with this newspaper, Ratu Orisi said the district development board had worked closely with the company to ensure landowners were well informed about bauxite mining issues. "This is very important and we have had one landowning unit approve of mining in the district and the rest will follow suit," he said. "We have considered employment opportunities and a boost to income for our people so after awareness programs in villages and the visitation by chiefs, the landowners are coming forward.

"All we had to do was properly inform them and make them aware about the bauxite mining procedures and what it involves." At the district meeting, company representative and geologist, Isireli Dagaga told the villagers they had worked closely with government authorities and the provincial council in ensuring villagers of Wainunu were kept informed about bauxite mining. Mr Dagaga, originally of Wainunu, assured the meeting of chiefs that he would never let anything affect his families and relatives in the district. He questioned whether the civil societies and youth groups criticising bauxite mining had contacted the company seeking clarification. He also said anyone with issues regarding bauxite mining or wanted to know more about it was to seek his assistance.

Chinese company invests in Porgera mine

The National, May 20th, 2016

CHINESE company, Zijin Mining Group Company Limited is stepping up its efforts to expand its business outside China. It has already invested in eight countries including the Democratic Republic of Congo in Africa for the Kamo a Copper project, and PNG through the Porgera gold mine. Zijin Group chairman Jinghe Chen led a delegation to visit the Barrick (Niugini) Limited-operated Porgera gold mine from May 5 to 7. Chen is also the chairman of the newly-formed six-member BNL board. In Congo, Zijin bought 49.5 per cent stake in Kamo a Holding Limited - a subsidiary company of Canada's Ivanhoe Mines Ltd. At Porgera, the Zijin group holds 47.5 per cent stake in BNL with the remaining 47.5 per cent held by Barrick Gold Corporation, plus 95 per cent stake in the Porgera Joint Venture. The remaining 5 per cent is held by the Mineral Resources Enga Ltd, made up of the Enga Provincial Government (2.5 per cent) and the Porgera landowners (2.5 per cent). He said the Zijin Group was honoured to work with Barrick as one of the largest gold mining companies in the world. He said Porgera was a starting point for the Group to learn how to do business in Papua New Guinea. "We believe at Porgera we have the opportunity to just complement each other with our respective strengths," he said.

Kumul Petroleum Holdings secures stake

Post-Courier, May 19, 2016

KUMUL Petroleum Holdings Limited has and will increasingly have a large stake in the projects commercialising gas in PNG. KPHL is the third largest partner of the \$19 billion PNG liquefied natural gas project, currently responsible for managing the State's 16.57 per cent equity. This share covers the PNG LNG Train 1 and Train 2, maximising its equity value in this single largest investment made by the nation to date. KPHL already secures 20.5 per cent equity in PNG LNG Train 3, as the construction of this potential expansion continues to offer attractive returns for developers. KPHL also holds 20.5 per cent equity in the Papua LNG currently underway, to be the next biggest LNG project in the country. This involvement in significant projects ride on the Kumul Petroleum Holdings Limited Authorisation Act 2015 which positions KPHL with the option for 20.5 percent stake in every development. These were captured in the presentation by company chairman Frank Kramer, at the 32nd APNG Business Forum and Trade Expo in Cairns on Tuesday. By the virtue of the KPHLA act 2015, KPHL is mandated as a commercial enterprise to participate in Oil and Gas exploration, development, production, processing and marketing, including all related upstream, midstream and downstream activities.

Frieda mine project report released

Post-Courier, May 20, 2016

THE development of one of the world's largest known and undeveloped copper deposits at Frieda River in East Sepik Province is now closer to reality. This follows yesterday's release of the Frieda River project feasibility study by PanAust Limited which paves the way for a formal submission to Government for a special mining lease. The earliest for the submission which will be made by PanAust is by the end of next month. Highlands Pacific Limited yesterday released the report onto the market. The application process and associated community consultations and environmental studies are anticipated to take approximately two years. Following permitting, construction would take approximately six years, leading to potential production in 2024-25. Compiled by PanAust Limited, the study contemplates a project comprised of a large-scale, open-pit mining operation feeding ore to a conventional process plant with nominal through put capacity of 40 million tons a year. Average annual production of metal in concentrate is 175,000 tons of copper and 250,000 ounces of gold,

with an initial mine life of 17 years. The project will have an average life of mine C1 cash cost of US\$0.69/lb1 (K2.18b) of copper and an all in sustaining cost of US\$1.23/lb2 (K3.89billion) of copper.

The study concludes that the project will have an estimated initial pre-production capital cost of US\$3.6 billion (K11.6bn), excluding mobile mining fleet and an oil fired power generation facility. An additional US\$2.3 billion (K7.45bn) will be spent over the life of the mine on development and sustaining capital. Highlands Pacific managing director John Gooding said the PanAust study demonstrated that there was significant potential value to be derived from the project under the right conditions. “This is one of the biggest undeveloped copper projects in the world, and this study represents an important step in the process towards developing the project profitably and in the interests of all stakeholders,” he said. In the meantime, joint venture partner commitment to development of the project remains subject to a range of challenges, including debt and equity funding, commodity prices, design refinement, environmental and the community approvals.

New Caledonia’s Nickel Industry In Fragile Position

75% of global producers cannot cover costs of production

WELLINGTON, New Zealand (Radio New Zealand International, May 20, 2016) – New Caledonia's nickel industry has been found to be in a fragile position as large stocks are likely to prolong a recent sharp drop in the price of the metal. According to the local newspaper Les Nouvelles caledoniennes, one of the territory's main producers discussed a recent study of the sector at an employers' meeting, which found that world-wide 75 percent of nickel producers could not cover their costs. In New Caledonia's case, the plants of SLN, Vale and Koniambo have to contend with structural challenges related to a limited industrial base, high electricity and labour costs. The quality of the ore at disposal, it said, failed to compensate for the disadvantage of being the producer with the highest costs. The report said while demand for nickel to produce steel had slumped, more nickel was needed for mobile phones and in the aviation sector.

China’s \$3.6 Billion PNG Copper Mine Faces 2-Year Approval Wait

David Stringer, Bloomberg, May 19, 2016

- PanAust plan sees doubling of cost of Frieda River project
- Mining industry preparing for a forecast copper shortfall

China-owned PanAust Ltd. estimates it may take as long as two years to win approvals for its expanded \$3.6 billion copper project in Papua New Guinea as bigger rivals forecast a deficit of the metal by the decade’s end. A revised development plan for the Frieda River project by state-owned Guangdong Rising Assets Management Co.’s Australian unit more than doubled an earlier cost estimate following a better understanding of the earthworks required, PanAust General Manager of Corporate Development Joe Walsh said Thursday in a phone interview. The new study also raised forecasts for copper output about 40 percent to 175,000 metric tons a year.

“Commodity prices are, in our view, going through a cyclical low and we do envisage that in the fullness of time we will see prices recover,” Walsh said. “The focus over the next year or two, when we would envisage that we would be largely in an approvals process, is to look at opportunities to improve the fundamentals of the project, with a particular focus on capital and infrastructure.” China is stepping up a hunt to secure more supplies of copper through acquisitions and mine projects to prepare for the forecast long-term demand growth. A copper deficit is likely to develop toward the

end of the decade, BHP Billiton Ltd. said in February, as output is constrained at existing mines on lower grades.

Multiple Pathways

Frieda River, acquired from Glencore Plc in 2013, may contain as much as 12 million tons of copper and 19 million ounces of gold, Brisbane-based PanAust said Thursday in a statement on its website. A further \$2.3 billion is earmarked in the new plan for sustaining capital and development over the life of the mine, it said. The mine will also deliver average annual production of 250,000 ounces of gold over the initial 17 years, PanAust said, compared with 200,000 ounces under a September 2014 proposal. PanAust's study didn't include any forecast date for Frieda River to enter production. The project remains subject to permits, approvals and a final investment decision by Guangdong and partner Highlands Pacific Ltd., which has a 20 percent stake, PanAust said in its statement. Guangdong last year completed a takeover of PanAust with an offer that valued the producer at about A\$1.2 billion (\$870 million).

"It's not really possible to put a clear timeframe on this," Walsh said. "History would suggest that approvals processes for substantial projects in PNG tend to be quite drawn out." The partners will seek a special mining lease from the Papua New Guinea government by June 30. Earlier this month, China Molybdenum Co. agreed to pay \$2.65 billion for Freeport-McMoRan Inc.'s Tenke copper and cobalt mine in the Democratic Republic of Congo, adding metals to feed China's new growth phase. Rio Tinto Group this month approved a \$5.3 billion expansion to more than double output at Mongolia's Oyu Tolgoi copper mine, situated 80 kilometers (50 miles) north of the Chinese border, aimed at meeting demand from the top consumer.

Clans in impact area declare pact with Ramu NiCo RamuNiCo heading

Post-Courier, May 19, 2016

THE four major clans in the Ramu NiCo project mine impacted area have declared their allegiance with the company in its rationalisation exercise. They said they will not allow employees to fight against the company. They held a meeting on Monday with the management and expressed their desire to see immediate commencement of operations. KBK mine general manager Sarimu Kanu led the management team to provide an update on the rationalisation exercise undertaken recently following the cease order from Mines Inspectorates with Mineral Resources Authority on April 15. A total of 51 workers have been laid-off while 189 are on standby until the operation commences as part of the company's cost saving measures. 520 nationals are currently at work. Local clan leader, Bare Diri on behalf of all the clans said it is reasonable to see any company take measures to save costs and Ramu NiCo is no given its financial situation.

"It is good that the project will not shutdown. Our concerns as landowners is the collective benefits we get from the project and not on individual issues. "If any employee, whether the landowners or outsiders making issues from the rationalisation exercise, we as landowners do not wish to see that disturbs the project and we will not support them," Mr Diri said. The landowners agreed that those employees who have been laid-off completely were on disciplinary grounds and it is their personal issue and conduct that the company has enforced its policies. "We do not wish to see one individual employee or collectively try to disturb the project if they were terminated. Our concern is to see the project commences operation soon," the landowners said.

Workshop based on PNGEITI ends

Post-Courier, May 19, 2016

BY MELISHA YAFOI

THE Papua New Guinea Resource Governance Coalition has conducted a three days workshop in Port Moresby to discuss strategies for a work plan based on the country's first PNGEITI report. The workshop which finishes today has seen 13 participants flown in from the Provinces to give their views on what should be done in the decision making on big projects that will be of benefit to the country. PNGRGC representative Martyn Naramong stated that the civil society capacity building workshop is based on the Papua New Guinea Extractive Industries Transparency Initiative report which has brought in representatives from the World Bank, Bantay Kita in Philippines and Publish What You Pay from London. Mr Naramong said World Bank has been supporting PNG in the implementation process of the findings and they have had a lot of help in terms of the implementation of the report when it comes to transparency in the sub national level down to the provincial government and the land owners.

He also said that the involvement of people in the provinces is very important in capacity building workshops because it also helps them provide strategies based on the discussions in order to make changes in certain areas of the extractive industry. "We have also identified transparency is one the things that needs to be addressed in order to have access to positive benefits in the revenue streams and for the country to have that there is also a need for contract transparency. This is because the contract defines the benefits and most importantly natural owners must be identified because they are the beneficial owners of the resource and they have to be made aware of information," he said. He also said the aim of the government is to translate the country's revenue by increasing the well-being of Papua New Guineans because there is a whole lot of potential in the industry itself. "PNGRC greatly appreciates the participation of World Bank, Publish What You Pay and Bantay Kita in the work plan of the PNGEITI report," he said.

EITI Report on transparency 'a positive step forward'

Post-Courier, May 19, 2016

BY MELISHA YAFOI

PAPUA New Guinea's first extractive Industries transparency initiative report that was recently launched is a positive step forward for implementation. This is according to Extractive Global practice of World Bank Andrew Schloeffel when commenting on how natural resource companies can be able to implement the recommendations contained in the PNGEITI report. Mr Schloeffel said the World Bank is a global supporter of the extractive industries transparency initiative and works with a number of major international bilateral partners to support EITI countries to implement EITI. He said for PNG they are working with Publish What You Pay to support civil society to have a meeting for the overall EITI process because it only works if the people of PNG get and see the value in it.

"The key message is that the EITI is a world initiative and it has taken PNG 10 years to get to the point where the country produces its first report but one of the really impressive things is the level of government ownership process because its a PNG funded activity. So far and in terms of the first report and this is important for civil society is that its the most comprehensive snapshot of sector of information that is early being produced in the country's history and I think the report is an excellent start," he said. He also said that the report highlighted major areas where it showed the Department of Petroleum and Energy has a real need to improve on matters on licence registering including important findings and recommendations for government action. "There are a whole lot of recommendations and I think its a positive move for the country's management of the sector for-

ward. "So that's the basis of why we're participating in the EITI today and what we are doing to this meeting is helping civil society to see what the value of transparency is in the oil and gas sector," he said.

Nautilus: Progress of sea-floor production pleases CEO

The National, May 18th, 2016

NAUTILUS Minerals chief executive Mike Johnston says he is satisfied with the progress of sea-floor production equipment. Johnston said this when the company released its unaudited consolidated financial statements for the first quarter of this year, together with management's discussion and analysis. Significant events to date include:

- Factory Acceptance Testing completed by Soil Machine Dynamics on the seafloor production tools;
- awarding of contract for equipment storage and wet testing of the seafloor production tools, which arrived safely at Duqm Port in Oman;
- completion of the assembly of the Subsea Slurry and Lift Pump;
- advanced construction of the Production Support Vessel;
- Completed rights offering; and,
- US\$47.5 million (K148 million) in cash and cash equivalents as at March 31 this year.

Johnston said: "It is very pleasing to see the progress that has been made on our seafloor production equipment this past quarter. "In particular, taking delivery of the three SPTs and sending them safely to Oman where they will undergo wet testing later this year. "In the coming months, we will remain focused on the building of the PSV and the delivery of the equipment to be integrated in it. The momentum continues to build as we work towards commencing seafloor operations at the Solwara One project site in quarter one, 2018."

ExxonMobil spends K12b on services

The National, May 18th, 2016

OPERATOR of the PNG LNG project, ExxonMobil PNG Ltd, has spent more than K12 billion [3,8 billion US\$] on services provided by local companies. Managing director Andrew Barry told the Papua New Guinea-Australia Business Forum in Cairns that this was apart from developing the company's workforce. "A key component of its national content strategy involved creating opportunities for local businesses to grow and prosper, from small micro-SMEs all the way through to large landowner companies," he said. "Since 2010, the PNG LNG project has spent more than K12 billion on services provided by PNG companies. "Of this, more than K3 billion has been spent with landowner companies. "Our partnership with the Papua New Guinea Institute of Banking and Business Management Enterprise Centre has also continued to develop.

Since 2010 our partnership has assisted over 17,500 local businesses with more than 20,000 days of training, mentoring and business assessment services, through the Enterprise Centre's supplier development programme." Barry said one of the early actions of the Enterprise Centre was to establish a supplier database to facilitate communication between local businesses and PNG LNG project contractors. The supplier database now has more than 1,500 registered businesses. "In our local communities, we are continuing to build key programmes focusing on education, health and environmental management, where we are helping thousands of PNG citizens lead better and healthier lives. We are seeing the benefit of our long-term approach to capacity building within key community groups, as they become more self-sustaining and pass their success onto others."

New Cassowary hotel modules arriving at site

The National, May 18th, 2016

MODULES of the new Cassowary Hotel in Kiunga, Western, have been shipped to the Kiunga port and transported to the hotel site, according to the Ok Tedi Development Foundation. It said civil construction works had started and construction would begin when the 99 modules had been shipped to Kiunga. "The hotel is another major trust investment of the Community Mine Continuation Agreement communities, which will also provide employment and spin-off business opportunities for the CMCA as well as non-CMCA people. "The 58-room hotel, to be an architecturally iconic building for the province, will fill a gap in the higher end business traveller market. It will be a catalyst for tourism and is expected to attract commerce through related service industries." The hotel will be built by The George Group and is expected to be completed by the end of 2017. According to OTDF, the hotel project is valued at K27 million and would generate a minimum annual eight percent return on investment to the CMCA Trusts.

'State must sign deals on company strength'

Post-Courier, May 18, 2016

BY MELISHA YAFOI

NEGOTIATIONS of resource project deals should be done at a position of strength and not on weaknesses says the executive director for Institute of National Affairs Paul Barker. Mr Barker pointed this out following recently signed resource deals between the state, resource companies and the landowners. He when some of the newer projects came in the government started giving them concessions and did not conduct proper negotiations before signing on the deals. He said that so far many of the projects that have been signed over the past years including the recent ones haven't been generating more income to the country even though they have paid taxes and that is because most of the deals were signed on tax holidays. "The Ramu Nickel deal was never consulted by the provincial government but with some landowners and they struck a 10 year deal of tax holiday.

Well that 10 year tax holiday started this year and they have been producing nickel for several years but it is only to this year the tax holiday starts so they haven't been paying tax." "The materials that they have imported is duty free and they haven't been paying anything to the Department of Treasury till 2025 but by then a lot of the nickel will have gone out so again we negotiated in a position of weakness," he stressed. Mr Barker said transparency is the first crucial stage in all negotiations and deals because in the event when one does not know about what is actually being transferred and how much is being recorded by the tax office or by other government agencies then this makes it very hard for civil society for the wider community including the landowners as well as non land owners to know. "Transparency is to have people with skills to be able to read and understand and though we have a lot of resources in the country we have to fully utilise and fully accounted for, fully invested in transparent mechanisms so that the National Government with the constitution can share the benefits with the whole country," he said.

LNG agreement were bulldozed: Awesa

Post-Courier, May 18, 2016

BY JEFFREY ELAPA

THE PNG LNG project agreement needs to be reviewed as it is not different to oil project agreements. Works Minister Francis Awesa said this when addressing the huge crowd that came to witness and attend the late Anderson Agiru's funeral in Tari. He said the agreements were bulldozed through with no better deals for the people of Hela and Southern Highlands from the agreements

signed 25 years ago. Mr Awesa said many projects were initiated and captured in the oil agreement but for the past 25 years Hela and Southern Highlands missed out on it. “TWENTY five years we have missed out and I want the PNG LNG project reviewed as we do not want to miss out for another 25 years because the Kokopo agreement is a fake agreement and it was bulldozed,” he said.

Prime Minister Peter O’Neill who comes from the Southern Highlands shared the same sentiment when he said that the PNG LNG project is no different than the Kutubu project. He said no development has taken place through the oil project but only for the last few years changes were taking place in the province through the leadership provided by the leaders from PNG. It was also revealed that the late Agiru wanted the UBSA agreement in Kokopo to be revisited just a week before his death. Mr O’Neill said there is a K300 million from the PNG LNG project benefits for both Hela and Southern Highlands but no one will ever touch it. He said landowners were delaying the payment with court cases and by not completing the clan vetting processes. “The 4.27percent share equity belonging to the people and the provincial governments, I left it to Anderson Agiru but now I get it back from him and we’ll fund it,” he said.

LNG projects must cooperate

The National, May 16th, 2016

THE cooperation between the PNG LNG and the Papua LNG is crucial to the saving billions of dollars in capital expenditure in the two project, Oil Search managing director Peter Botten says. He told the company’s 2016 annual meeting last week that Oil Search was promoting discussion on the two projects to emphasise the importance of cooperation. “One of the big focuses for the company right now is ensuring that next growth of the PNG LNG and the development of Papua LNG are optimised and there is cooperation between the two projects,” he said. Botten told a meeting involving three projects on Curtis Island that developers had to build their own facilities incurring a substantial amount in capital cost. He said the three projects would have saved billions of dollars if they had agreed to synergise their resources in the delivery of those projects. “Those three projects each built tanks, their own tanks, each project built their own jetty, their own pipeline, their own camp, and the three project sat next door to each other, had almost no cooperation and no capital synergies between them. “And that resulted in billions of dollars in overinvestment in infrastructure which we believe Papua New Guinea should avoid. And when you look at the opportunities, especially in this period of low oil price, cooperation in the next phase of development of the PNG LNG and Papua LNG is a critical part.”

LNG projects can help PNG: Botten

The National, May 16th, 2016

By GEDION TIMOTHY LAPAN

OIL Search managing director Peter Botten says the expansion of the PNG LNG and the development of the Papua LNG has the potential to revitalise the economy. He said following the annual general meeting last week that a part of the PNG economy was doing okay. “Part of the economy is doing okay and parts of it are doing tough. And that’s probably true for the world,” Botten said. “It is clearly a slow period in the economy. We have gone to very large investments for PNG LNG, then we have a significant investment in the Pacific Games and infrastructure. “There is less money around and that’s why we are endeavouring to get the expansion of PNG LNG and the development of the Papua LNG up as quickly as possible. “If we can do that, then you start the process of employing thousands of workers again and you start to stimulate the economy. “It will also help ameliorate the forex problem by bringing investment into the country.” On how the company operation was affected by the forex liquidity problem, Botten said much of Oil Search “business is in US

dollar". "We bring in substantial amount of foreign currency into the country every month, to manage all our kina cost so we contribute substantial foreign currency in US dollars to the country each month." "Clearly, we look at the every month and we try and do what we can to bring or to provide forex into the country's system."

Ramu Nickel cuts jobs due to cease order

Post-Courier, May 16, 2016

A TOTAL of 51 nationals working for the country's lone nickel and cobalt mine in Madang have lost their jobs. A further 189 workers were also laid off and their return to employment now hinges on whether the financials of the Chinese developer-Ramu NiCo (MCC) Limited improves. The job cuts follow a rationalisation exercise which the Chinese developer was forced to undertake due to its tight financial situation. Earlier and at a time when several mines were forced to lay off their staff for reasons including the *El-Nino* and the down-turn in the global prices, the miner had expressed confidence that it would be able to weather the situation. However, the situation changed when the company was instructed by the Mineral Resources Authority (MRA) to shut down its operations last month and following a fatal accident at the mine's refinery at Basamuk, Raicoast district. In a statement, the company released last week, Ramu NiCo said the 51 workers who had their contracts terminated were from both its Kurumubukari and Basamuk sites. "Those (51) laid-off have been paid their full entitlements under their individual contracts and those on stand-by (189) will receive certain allowance.

"The exercise is due to our financial situation given the cease order now in place. We have followed all the laws and policies to carry out the exercise," company management said. The miner said a total of 520 nationals had been retained to maintain the sites as well as to carry out relevant maintenance work. "We have also reduced the staff strength of our Chinese employees from our two sites as well. "Some were laid off completely as well while others have also been put on stand-by. Those who are on leave have been advised to stay on in China," the Company said. "It's been more than four weeks since the Project operation shut down and the duration of the shutdown is uncertain and depends on the incident investigation outcome by an independent third party and rectification approval by MRA. KBK Mine management led by Mine Manager Sarimu Kanu had met last week with the mine impacted landowners to advise them of the exercise while also urging the leaders to support the project at this difficult time. KBK Community leader, Bare Diri said the landowners did not wish to see the Ramu NiCo Project close down permanently and asked the company to work closely with the Government through its implementing agencies including MRA to find ways forward.

Nautilus admits serious questions over Solwara 1 viability and future


Nautilus Minerals via PNG Mine Watch, May 16, 2016

Nautilus Minerals says it still faces significant financial and technical uncertainties and may not proceed with its highly controversial Solwara 1 experimental seabed mining operation in Papua New Guinea. Publicly the Canadian company is very positive about its plans for world's first seabed mine, claiming it will be ready to start mining in the narrow coastal waters of the Bismarck sea between New Ireland and East New Britain, in 2018. But a detailed study of company's 2015 AGM presentation reveals Nautilus does not know if the mine is commercially or technically viable and the company does not have the financial resources to start production. Nautilus President and CEO

Mike Johnston made the presentation titled '*Forging Ahead*' at the company AGM in June 2015, but didn't dwell on the fine print in which there are some alarming disclosures; "the production de-

cision for the Solwara 1 Project was not based on a feasibility study of mineral reserves demonstrating economic and technical viability” as a result “there is increased uncertainty and economic and technical risks of failure associated with this production decision” That is correct! Nautilus says there is no study showing the mine is economically or technical feasible! Yet the PNG government has not only granted a mining licence it has given Nautilus \$100 million of taxpayers money! Perhaps the lack of a feasibility study explains why other investors are running scared and Nautilus is still suffering a dire lack of funding: “Nautilus requires significant additional funding to advance the Solwara 1 Project towards production. There can be no assurance that the Company will be able to obtain at all or on acceptable terms the remaining financing necessary”

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- This presentation may contain forward-looking statements within the meaning of the United States Securities Exchange Act of 1934 and forward-looking information within the meaning of applicable Canadian securities law (collectively "forward looking statements").
- Material forward-looking statements include statements or information with respect to the obligations of the Company and its counter parties under various agreements related to the Company's seafloor development, the Company's ability to locate, mine and transport mineralized material from the seafloor; the method of transport of mineralized material from the Company's Solwara and CCZ projects; any estimates of anticipated costs and expenditures; development and general statements about the amounts and grade believed to be present on the seafloor and production timelines and the cost, timing of delivery and effectiveness of the seafloor production tools, the raser and lifting system and the production support vessel; and plans to define an Indicated Mineral Resource and commission a Preliminary Economic Assessment in respect of the nodules on the Company's Tongan tenements.
- We have made numerous assumptions about the material forward-looking statements contained herein, including assumptions relating to the future price of copper, gold, silver and zinc; that anticipated costs and expenditures will be as planned; that key components of the seafloor production system will be built on schedule and in accordance with Nautilus' specifications; and our ability to achieve our goals. Even though our management believes that the assumptions made and the expectations represented by such statements are reasonable, there can be no assurance that the forward-looking statements will prove to be accurate. Accordingly you should not place undue reliance on forward-looking statements.
- Forward-looking statements by their nature involve known and unknown risks, uncertainties and other factors which may cause the actual results to differ materially from those described in forward-looking statements. "Risk Factors" are presented in the Company's most recent Annual Information Form, available on SEDAR (www.sedar.com). Except as required by law, we undertake no obligation to update forward-looking statements as conditions change.
- As discussed in the Company's most recent Annual Information Form, the production decision for the Solwara 1 Project was not based on a feasibility study of mineral reserves demonstrating economic and technical viability. Accordingly, there is increased uncertainty and economic and technical risks of failure associated with this production decision. Production and economic variables may vary considerably due to the absence of a completed and detailed analysis as would be included in a feasibility study. The risks associated with this decision are set forth in the Company's Annual Information Form under the heading "Risk Factors".
- Nautilus requires significant additional funding to advance the Solwara 1 Project towards production. There can be no assurance that the Company will be able to obtain at all or on acceptable terms the remaining financing necessary to fund the completion of the build and the deployment of the Company's seafloor production system.
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- Notes Regarding Technical Disclosure
 - Resource information for the Solwara project is derived from a technical report titled "Mineral Resource Estimate, Solwara Project, Bismark Sea, PNG" dated and filed on SEDAR on March 23, 2012, and summarized in a news release dated November 25, 2011. Indicated resources of 74,000 tonnes of copper is based on 1.03 million tonnes at an average grade of 7.2%.
 - Resource information for the CCZ Project is derived from the technical report titled "Updated NI 43-101 Technical Report, Clarion-Clipperton Zone Project, Pacific Ocean" dated March 20, 2013 and filed on SEDAR on March 21, 2013, and summarized in a news release dated September 18, 2012, unless otherwise stated.

FORGING AHEAD
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Nautilus is not talking publicly about the fine print

That is right! Nautilus does not know if it will ever have enough money to start mining! Potential investors will hardly be reassured by Nautilus's further admission it would be foolish to rely on its predictions for the Solwara 1 mine and it has made numerous assumptions about its ability to achieve its goals: “We have made numerous assumptions about the material forward-looking statements, including assumptions relating to the future price of copper, gold, silver and zinc; that anticipated costs and expenditures will be as planned; that key components of the seafloor production system will be built on schedule and in accordance with Nautilus' specifications; and our ability to achieve our goals...., there can be no assurance that the forward-looking statements will prove to be accurate. Accordingly you should not place undue reliance on forward-looking statements.

Download the full AGM presentation [6.5MB]

<http://www.nautilusminerals.com/IRM/PDF/1562/AGMJune2015final>

Dozens Taken In By Police In West Papua Amid Mine Dispute

Conflict reportedly over access to mine 'tailings'

WELLINGTON, New Zealand (Radio New Zealand International, May 14, 2016) – Police in Papua have taken nearly a hundred people in for questioning amid accusations they had taken tailings from a mining site in Mimika. The Jakarta Post reports 21 people were still being questioned and are alleged to have trespassed onto the mine owned by US-based gold and copper mining company Freeport Indonesia. The paper reports the incident began when about 400 local residents tried to enter on Thursday morning, but they were blocked by around 120 security personnel. The police say residents tried to burn security posts and damaged several vehicles belonging to the company. The police said the invasion seemed to have been triggered by residents' suspicions that the company had shut down its operations because in the past month, it had not channeled tailings into a river near the mining site. Traditional miners have been used to taking the waste to find gold left over in it. The police told the paper the waste was not being channeled into the river because waste channelling equipment had been damaged.

French Mining Conglomerate Agrees To New Caledonia Plan

Will provide \$45M until restructuring plan is finalized

WELLINGTON, New Zealand (Radio New Zealand International, May 10, 2016) – The French mining conglomerate Eramet has approved a plan aimed at saving New Caledonia's SLN nickel smelter in which it is a majority shareholder. Eramet has issued a statement, saying it will make available US\$45 million to support SLN until the end of June when a restructuring plan is expected to be finalised. SLN, which is the territory's main private sector employer, is losing more than half a million dollars a day because of the fall in the price of nickel. The announcement in Paris follows a decision by the New Caledonian provinces' industrial umbrella group, STCPI, to take up part of the US\$240 million loan offered by the French state, which promised to guarantee SLN's continued operation. Reports say STCPI has agreed to borrow US\$144 million for the restructure which is expected to cut SLN's production costs by a quarter by the end of next year.

Solomons To Reopen Nickel Prospecting License Process

Committed to transparent process after license voiding

WELLINGTON, New Zealand (Radio New Zealand International, May 10, 2016) – The Solomon Islands government says it will soon seek expressions of interest for prospecting rights to high grade nickel deposits in Isabel Province. The rights to prospect and develop the deposit have been at the centre of one of the longest running legal battles in the country's history. Both Sumitomo Metal Mining Ltd and Axiom KB have claimed ownership of the tenement, with the latter securing the rights last September before the Appeals Court rendered all existing licences void. In a public notice, the Ministry of Mines said it was committed to an inclusive, transparent process to avoid further legal implications and delays. Axiom KB has reiterated its intentions of resuming operations on Isabel whilst Sumitomo has yet to make its intentions clear.

Solwara: Landowners want to see benefits says leader

Post-Courier, May 09, 2016

By Simon Keslep

THE Multi-million kina Solwara 1 project within the coastal region of New Ireland and East New Britain needs to be reviewed in terms of landowner benefits. Former president of Central New Ire-

land local level government Toligai Soka said last Friday with the 2018 locked in by Canadian Miner Nautilus that there were still a few issues that needed to be ironed out. Top of the list Mr Soka said were the equity share benefits for landowners within the projected Solwara 1 tenements and also the environmental aspects pertaining to the deep sea mine. "Mineral Resource Authority (MRA) and Nautilus need to explain also the shift of project location (tenements 154) and what benefits will Namatanai wards of one, two, three and four gain." Mr Soka added that procurement studies should also be carried out in terms of the project's environmental and social aspects of development for coastal communities located within the project extraction zones. He had claimed due process had not been followed in the issuance of the licence to the developer.

"Seabed mining is a totally different ball game and we understand the Land Mining Act was adopted and used in the issuance of the licence. This is whilst awaiting collation of draft policies. "It is really a slap in the face when landowners are denied their share of benefits and even being left neglected in terms of basic service deliveries like education, health and other socio-economic developments," said Mr Soka. "It is now becoming a common trend of establishing ghost created landowner groups in major economical townships which directly contributes to inadequate distribution of royalty payments for traditional landowners." he had added. Meanwhile Mr. Soka gave reference to the three main economic projects within New Ireland province which includes Simberi, Lihir and now Nautilus. "There should be establishment community consultative organisations to deal with landowners' economic, social and environmental issues relating to the project," added Mr. Soka. Mr Soka's concerns is also in reference to a recent World Bank Report on immediate cautions in Deep Sea Mining in the Pacific region in which PNG has already granted a license for ocean floor mining through the Solwara 1 project.

Chan pushes Lihir peace talks

The National, May 9th, 2016

By FRANCIS ULIAU

THE State, through the Mineral Resources Authority (MRA), continued the peace process between major stakeholders in the Lihir gold project in Namatanai, New Ireland, on Friday. "Mining Minister Byron Chan and New Ireland Governor Sir Julius Chan both attended with a big delegation including MRA officials from head office in Port Moresby," Lihir Mining Area Landowners Association (LMALA) chairman James Laketan told The National on Friday. MRA Lihir project coordinator Vincent Kisso could not be contacted to provide background reports on the event. Questions over MRA's (and the State's) stance on issues and laws governing gorgor placements also remained outstanding. Friday's ceremony was a follow-up to the spiritual and traditional reconciliations held in Kavieng and on Lihir Island in February and March. Minister Chan, who attended the March 5 traditional reconciliation ceremony between the Nimamar LLG and LMALA spoke highly of the peace process and assured all parties, including local landowners and developer Newcrest Mining Limited that the National Government fully endorsed the current way forward.

He assured the project proponents that Prime Minister Peter O'Neill and all Cabinet ministers had recognised and endorsed the reconciliation ceremonies. Governor Sir Julius did not attend the March 5 traditional ceremony because he was then overseas for a minor surgery. However, he was on the island on Friday. Laketan said part three of the reconciliation process on Friday would allow for outstanding benefits and commitments in the Lihir memorandum of agreement (MOA) and integrated benefits package (IBP) to be honoured. "Mining activities on Lihir are ongoing and all project proponents must also step up on our activities. "The Lihir Agreements Review (LAR) process is long overdue. Now is the time to sit down with the State, through MRA, and developer Newcrest and fast-track all prerequisites to the IBP," Laketan said. "The Lihirian people have suffered

enough. "Years of infighting have created instability and suffering for our people."

A review of the IBP had been outstanding since 2007. LMALA general manager Joachim Malele said the ongoing conflict had affected the implementation of projects and programmes under the Lihir Sustainable Development Plan (LSDP). Malele, who was general manager LSDP until his elevation to head LMALA in late March, said there was a major need to progress all chapters of LSDP through the State, landowner association and the local, district and provincial governments. Meanwhile, describing LAR, MOA and IBP processes as "taking too long", Minister Chan said MRA and Newcrest Mining must release all outstanding commitments, including grants and benefits, to the Lihir people and their local, district and provincial governments. "Put aside your differences and progress discussions to obtain and deliver what rightfully belongs to the people," the minister said.

French Mining Company Mulling New Caledonia's Offer

Huge loans to restructure private sector mining operation

WELLINGTON, New Zealand (Radio New Zealand International, May 8, 2016) – The French mining conglomerate Eramet is today due to consider New Caledonia's offer to help save the SLN nickel plant, which is the territory's most important private sector employer. The French government offered a huge loan for a restructure as it was losing more than half a million US dollars a day. New Caledonia's three provinces had given their conditional approval for taking on part of the \$US240 million loan offered by the French prime minister Manuel Valls. But all eyes are now on SLN's parent company Eramet to see what sort of commitment it can make to restructure SLN, whose viability is further at risk if it doesn't get a new power plant. New Caledonia's STCPI provincial umbrella group said Eramet had to accept part of the blame for the crisis because of a failed strategy. Its head said before the nickel price slumped more than \$US900 million in dividends were disbursed and the construction of the power plant deferred for a decade.

Fiji: \$4M STOCKPILE: Exports from Bua stagnant

Serafina Silaitoga, The Fiji Times Online, May 06, 2016

AT least \$4 million worth of bauxite remains in mining sites as export from the shores of Bua has been stagnant for a year despite improvement to the global market. About 70,000 tonnes of bauxite valued at \$2.8 million has remained at the Nawailevu stockpile area and 30,000 tonnes worth \$1.2m has been kept at the mining site in Dreketi, Macuata. Aurum Exploration (Fiji) Ltd's director Derek Chiu confirmed that the company had not been able to export bauxite for a year now. "We have not been able to export bauxite since the first quarter of last year and haven't been able to make changes or to export this year," he said. "The global demand for bauxite is very bad and this has affected the situation. The quality of the bauxite from Bua has also delayed our export from Bua." Director mineral Rajjeli Taga also confirmed the tonnage of bauxite that has not been exported.

She added that bauxite from Bua was not classed as high-grade which has also contributed to the situation. "The department is fully aware that the price of bauxite has recovered to some extent given the rise in demand for bauxite in China, which is the world's biggest bauxite consumer," she said. "The bauxite in Bua is not classed as high-grade bauxite, thus the issue of securing an export market given the slow or sluggish recovery of bauxite price as well as China's insatiable demand for high-grade bauxite. "This is because of the shortage of supply of high grade bauxite which was caused by Indonesia banning bauxite export in 2014 as well as Malaysia, two of the world's biggest bauxite exporters." Mrs Taga said Aurum Exploration had been continuously advising the department of issues faced in their efforts to export bauxite. "Currently 70,000 tonnes of bauxite is sitting at the

Naiyiqiri stockpile and another 30,000 tonnes of bauxite at Aurum's mining site in Dreketi ready to be shipped," she said.

World Bank warns of deep-sea mining

The National, May 6th, 2016

A World Bank report has advised Pacific Island countries supporting or considering deep-sea mining activities to proceed with caution to avoid irreversible damage to the ecosystem. The report is titled "Pacific Possible: Precautionary Management of Deep Sea Mining Potential in Pacific Island Countries". It says countries need to ensure that appropriate social and environmental safeguards are in place as part of strong governance arrangements for the emerging deep-sea mining industry. The report says deep-sea exploration of minerals and resources was increasing globally. But its short and long-term impacts on the environment, economy and society in general remain largely unknown. The report, released for public comment, takes stock of what is known and unknown about deep sea mining – its costs, impacts and potential revenue.

It highlights the need to develop both the evidence base for informed decisions and appropriate governance structures. The report recommends that precautionary measures be applied and identified six alternative management responses including a no-development option, a set aside to be established, the use of technological innovation to minimise impacts and adaptive management. The report also notes that PNG is the only country in the Pacific to have granted a license for ocean-floor mining, through the Nautilus Minerals Solwara 1 project. Meanwhile Nautilus Minerals Inc chief executive officer Mike Johnston expressed his disappointment over the report saying it lacked credible information on some of the work currently being done and had already been done by countries such as PNG to address those issues raised. Johnston said it was disappointing that the World Bank and the authors of the report did not consult Nautilus or the relevant PNG authorities for facts on the operations. He said most of the things recommended by the report was being done by Papua New Guinea.

Link: <http://pubdocs.worldbank.org/pubdocs/publicdoc/2016/4/125321460949939983/Pacific-Possible-Deep-Sea-Mining.pdf>

Sonk assures clans of equity share in LNG project

The National, May 6th, 2016

By SHIRLEY MAULUDU

KUMUL Petroleum Holdings Limited managing director Wapu Sonk has assured landowners and provincial governments impacted by the PNG LNG project that they will take up the 4.27 per cent equity share. He said the Government would make sure they did not miss out. "I want landowners to know they will not miss out," he said. "We will ensure they take up the option in the most economical way." Sonk, pictured, was responding to a question raised by The National on an issue raised in the petition presented to the Government by the people of Hela, in the wake of the death of Hela Governor Anderson Agiru. "I can confirm that Kumul Petroleum (KPHL) always had a solution as a backstop to ensure all the beneficiaries of the UBSA exercised the option by June 30, 2016, and we are ready to step in closer to the due date for option expiring," he said.

The Kroton equity to provincial governments and project area landowners is stipulated under the Umbrella Benefits Sharing Agreement, the Kokopo UBSA executed in 2009. The option is for the purchase of 25.75 per cent stake in the US\$19 billion (K59 billion) project's special purpose vehicle Kroton No 2 where Kroton No 2 is nominee in the project. Hence the option offered is an indirect interest in the project by virtue of the exercise of the share options given to them under the UBSA

in 2009. “We have not been actively involved in promoting the Kumul Petroleum-driven solution because the obligation is on the landowners and the affected provincial governments to come up with the money to pay for their share options,” he said. “Given the economic conditions, especially the LNG price and oil price being low, KPHL will advise the Government the appropriate options. And it is up to the Government to make the decision and offer to the people before June 30.”

Governor must not use media: Locals

Post-Courier, May 06, 2016

EXECUTIVES of the Purari, Muro and Pawaea Association rally behind the PNG Government and Total to set up the LNG in Gulf and condemned the manner in which Gulf Governor Havila Kavov has sent out a media threat for the project not to go ahead. Yesterday the executives spokesman chairman of Muro Pawaea Holdings Ltd and spokesman for landowners, Purari, Muro and Pawaea, Dominic Evere is calling on the Governor of Gulf, Havila Kavov not to use media all the time when things are happening in Gulf Province, for the good of the province and landowners. He said this because Governor does not operate from the province and does not listen to the views and aspirations of the people of the province. All our elected leaders live in Port Moresby and manage the affairs of the province from Port Moresby. The Gulf governor has been holding press conference after press conference in Port Moresby but is never based in Kerema or the province.

He has made commitments, after commitments to assist landowners but never at one time assisted us. He promised to assist landowners with K3,000,000 for the ILG registration some 4 years ago but nothing materialised. We the impact landowners from Muro Tribe, the Maura Tribe and the Pawaea Tribe want to distance ourselves from the Hon Governor and his administration. They (Gulf Administration) had never any time for our people, and also have never assist our people. The only services the Pawaea people receive is from Chimbu provincial government and from the Muros and the Kauras are from Catholic Church and Frontier Holdings Ltd. We don't receive any services from Gulf Provincial Government, in terms of health, education, roads and agriculture. But because oil and gas is now found on our land, everyone is talking, including our Hon Governor.

The questions we would like to ask are;

- Where was he all of these 9 years and what has he done for our people?
- What is happening to our airstrips, hospitals in Ihu, Orolo and Ihu Muro road

Where is the Governor going to come down on earth (Gulf) and listen to us, so together we can do anything for our people in the province as a whole instead of remote control all the time.

Mr Evere as a concerned landowner from Muro area wants his people not to be misled by political leaders who do not have the heart, time and operate from the remote control.

Our landowners will stand by the National Government and developer, total SA to develop our Papua New Guinea so the remote areas of Muro Kaura and Pawaea can see light at the end of the tunnel, (Development).

Gulf is the least developed province in whole of PNG and we want this project to develop our province. All our political leaders are greed and selfish and have never worked together for the benefit of the province and the people, said Mr Evere.

Tentative New Caledonia Nickel Crisis Deal

\$240M loan from France to biggest private sector employer

WELLINGTON, New Zealand (Radio New Zealand International, May 5, 2016) – New Caledonia's provinces have given their conditional approval for taking a loan from the French state to help the territory's biggest private sector employer, the SLN nickel company, restructure its operations. Last

week, the French prime minister Manuel Valls visited Noumea and offered to lend \$US240 million to the territory to assist SLN, which is running at a loss of about \$US700,000 a day because of the fall of the price of nickel. The provinces' umbrella company, STCPI, has agreed to take up the offer, but insists on limiting its role to 34 percent which is equivalent to its stake in SLN. An STCPI leader says SLN's French parent company Eramet has to accept part of the blame for the crisis because of a failed strategy. He says before the price slump more than \$US900 million in dividends were disbursed and the construction of a badly needed new power plant was deferred for a decade.

Solomons Landowners Mull Legal Action Over Mining License

Insufficient consultation with community

WELLINGTON, New Zealand (Radio New Zealand International, May 5, 2016) – Tribal landowners in the Solomon Islands are threatening the Ministry of Mines and Energy with legal action for issuing a prospecting license to the Australian company Iron Mountain Mining. The licence grants the company the rights to prospect for bauxite deposits in a tenement on Nende Island in Temotu Province. A spokesperson for the Nende tribal landowners told the Solomon Star newspaper due process was not followed by the company or ministry officials. Stanley Bade said legal action was being considered on the grounds that there was insufficient consultation with the community and that the mines and minerals board was by-passed in the process. The ministry of mines told the paper it would release a formal statement once an internal investigation into the matter is concluded.

Firm updates to New Ireland on Lihir mine

The National, May 5th, 2016

Newcrest Mining Limited chief executive officer Sandeep Biswas last week led a group of executives to Kavieng to provide a quarterly briefing to the New Ireland provincial government. The group included the general manager of the Lihir Gold Mine Craig Jetson, PNG country manager Peter Aitsi, Newcrest Tax Credit Scheme manager Jonathan Hardy. The New Ireland Provincial government said in a statement this was the most senior Newcrest delegation to brief the Provincial Executive Council. The statement said the briefing consisted of an update on the performance of the Lihir gold mine in the past fiscal year and prospects for future performance. “The mine has steadily increased production over the last year and is projected to produce over 800,000 ounces in 2016,” it said. It said the Newcrest Tax Credit Scheme had funded nearly K100 million worth of projects in New Ireland from 2013. The projects included investment in education and infrastructure developments. Work has been done on the Lihir High School, Manggai and Mongop High Schools, Utu Secondary School, Nasko, Tanir High Schools and Konomatalik Secondary. Major road works have been carried out on Kavieng town roads and the Namatanai town roads.

Frieda Miner supporting development plans

The National, May 5th, 2016

By Eric Balaria

HIGHLANDS Pacific Ltd is working with provinces affected by the Frieda River project to ensure that provincial development plans are fully implemented. Country general manager Ron Gawi said the firm had been holding quarterly meetings with the East and West Sepik provincial governments to give updates on the project and provide assistance on creating and improving development plans. He told The National that the Frieda River project, situated on the southern border of Sandaun and East Sepik, was a strategic resource development project. He said the development of the project

would see the use of the roads and the river system to transport the concentrated materials down to the town wharves to be shipped overseas.

Gawi said places such as Ambunti and Telefomin would be affected. He said planning was vital to ensure the provinces were prepared to perform on the back of the development of the project. Gawi said they were looking forward to the submission of the project feasibility study from joint-venture partner PanAust. He said the study would provide backing for a submission to be made to the Government for a Special Mining Lease, to allow the project to its development stages. PanAust had recently advised that the study would be provided to Highlands by the middle of this month. Meanwhile Sandaun Chamber of Commerce and Industry president Boni Leki said they were happy with discussions being carried out between the provincial governments and the project operators. Leki said discussions on development plans would provide opportunities for the provinces economically.

Problems likely during restart says Miner

Post-Courier, May 05, 2016

THE operator of Papua New Guinea's lone nickel mine has raised concerns it may run into some technical problems, if the suspension to its operations is prolonged. Production at this Madang based mine was stopped two weeks upon directives that were issued by the Mineral Resources Authority (MRA) as a result of the fatal accident that had happened at the Basamuk refinery early last month. MRA had ordered that the HPAL (high pressure acid leach) operation cease and its workers withdrawn. In a statement Ramu NiCo (MCC) Limited issued yesterday it said that the lifting of the suspension hinged on the outcome by the independent third party and rectification approval by MRA.

"The shut-down was unplanned as opposed to a planned shutdown and its implication on utilities and other systems cannot be ignored. "Technically, it will be difficult to restart the operation circuit if the system is shut down for a longer period because the debris from the slurry in the holding tanks, pipes and HPAL is likely to solidify making and thus will be difficult to remove. "Inaction due to non-production cycle may cause internal corrosion, making it difficult for Project restart," the management said. The Company also expressed concern possible loss of its workforce if the suspension was prolonged. "This will pose serious difficulties in our smooth restart and operation of the Project."

Bougainville region lifts ban on mining to protect land

Post-Courier, May 05, 2016

A PARTIAL lifting of the Mining Moratorium on Bougainville is the only practical solution to the autonomous region's mining dilemma, says Albert Magoi, a former combatant from South Bougainville. Mr Magoi said that the moratorium on mining was put in place in 1971 to protect land outside of the mining leased areas (areas not within the proximity of the Panguna mine) by the Bougainville Copper Limited (BCL) to be mined and covers much of the mineral-rich island. With Bougainville pressing towards the vote for referendum in the next three years the government is considering its options on creating a viable economic stream with mining being the formidable one. It has yet to thoroughly debate the issue but there have been strong indications that the government will look at lifting the moratorium to a partial extent that allows it to control the industry and avoid unnecessary parties on capitalising on it.

Mr Magoi said that there are differing views on the lifting of the moratorium but he agreed that a more practical solution is the partial lifting of the moratorium. "I support the moratorium but only to a certain degree that is manageable and cannot be abused by outside influence that only seeks to take advantage of us. "The moratorium is in line with our traditions; it protects our land, environment and culture from outside influence that only seeks to destroy our values and rape our lands," he said. Mr Magoi warned that if the Bougainville government lifts the moratorium, exploration licences will allow developers to mine just about anywhere on Bougainville despite the Bougainville Mining Act which restricts to two big miners operating simultaneously and offers a vague definition on small scale mining that can be penetrated by outsiders.

Call To Review Oil and Gas Act, and Mining Act

Quinton Alomp, EMTV News, 04 May 2016

Papua New Guinea's poverty level in terms of the United Nations international ranking can be improved if the Oil and Gas Act, and the Mining Act, are reviewed, a prominent lawyer said. Lawyer and first-time politician, Sinesine-Yongomul MP, Kerenga Kua, pointed out loopholes in both constitutional acts that continue to create what he describes as "a good investment destination" for petroleum and mining companies. He said the inequity in the current framework of the Oil and Gas Act, and the Mining Act, must be reformed to get the maximum return on minerals and petroleum for the state. The law states that all minerals and petroleum belongs to the Independent State of PNG. But the former Attorney General argues that the state's ownership is forfeited once a development licence is given to the developer. "The big, big problem with the Petroleum Development Licence and Mining Lease is this. "Upon the grant of the Petroleum Development Licence and upon the grant of the Mining Lease, the state ownership to petroleum and to minerals is forfeited right at that point in time.

"Without any compensation in return. It now 100 per cent belongs to the finders. But hold on the state says it owns it, it's not lost property." he argued. Kua said this is the problem where licences were given free of charge with no compensation in return. The developer then asked the state to buy equity shares in the project. Petroleum companies allow up to 22.5 per cent while mining companies have a maximum of 30 per cent ownership. The state then struggles to buy shares, goes overseas and borrows from international lenders to buy shares for the licence that was initially provided at no charge. As the country's loans build up, the poverty level on the international scale remains extremely poor. In 2013, the United Nations ranked PNG 156 out of 187 countries with poor access to health, education and clean drinking water. But Kua argues that the poverty level can be improved only if the Oil and Gas Act, and Mining Act, is revisited and is given a fair compensation for licences. He said unless the laws are changed, PNG would continue to borrow to buy shares such as the controversial UBS loan saga.

Bougainville's Vice President raises the question of reopening the controversial Panguna mine

ABC Radio Australia, May 4, 2016

Bougainville's Vice President says deciding on the future of the infamous Panguna mine is one of the major challenges facing his government and the island's people. Patrick Nisira recently gave a wide-ranging and frank speech at the Australian National University in Canberra about the many issues his government is struggling to deal with. Among the challenges he outlined were post-conflict reconciliation, weapons disposal, inadequate funding from the PNG government, gender equality and the upcoming referendum on independence from PNG. But it will be his comments on the question of whether to reopen the Panguna mine, and to allow other mining developments on the island, that will attract the most attention inside and outside Bougainville. Liam Fox reports.

Upgrade accelerates mine activities

Post-Courier, May 04, 2016

AUSTRALIAN miner Crater Gold Mining yesterday announced that it has now installed and commissioned its new custom-made gold processing plant at its High Grade Zone (“HGZ”) mine at Crater Mountain. “This marks an important milestone for the company as we transition from a developer to a gold producer. “This newly installed processing plant enables us to work towards full production in the near term and is expected to deliver strong cashflows on high margins going forward. “This in turn will allow us to fund further development at the HGZ mine and exploration activities at our other assets,” Crater Gold Mining’s managing director Mr Russ Parker said.

Mr Parker said the firm’s recent discovery at the South Artisan Workings (SAW) Zone which it had in an earlier announcement in its report to the Australian Stock Exchange (ASX) on February 1, 2016 also highlights the potential for additional mineralisation in close proximity to the HGZ mine and a potentially longer mine life operation. “While the current focus remains on the HGZ mine, there remains potential to increase the current JORC compliant¹ resource of 24 metric tons (Mt) at 1.0 grams per ton (g/t) of gold (Au) for 790,000 ounces at the nearby Mixing Zone project at Crater Mountain 2011: “Crater Mt – Initial Resource Estimate. Crater Mountain is located 50 km south-west of Goroka in the Eastern Highlands Province of PNG. Formerly a tier-1 BHP asset, there has been in excess of 14,500 metres of diamond drilling to date, the majority focussed on the Nevera prospect, which hosts the HGZ mine.

Morauta: K2 billion PNGSDP correct

Post-Courier, May 04, 2016

THE solution to the issue highlighted by Sumkar MP Ken Fairweather on the K2 billion funds parked in Singapore is straight forward, says former Prime Minister Sir Mekere Morauta. Sir Mekere said in a statement yesterday that what Mr Fairweather highlighted in the newspaper advertisement about the PNG Sustainable Development Funds was straightforward. Mr Fairweather had written openly and publicly for PM Peter O’Neill and Sir Mekere to bury their differences and come together as statesmen and put PNG first. Fairweather wrote an open letter to both leaders also asking if US\$2 billion (K6 billion) parked in the PNGSDP Singapore account could be brought in to PNG to ease the economic situation here especially the foreign exchange problems.

Sir Mekere said PNG Sustainable Development Program Ltd is, as always, ready to resolve the issues between the company and the State. "PNGSDP did not start the fight. PNGSDP cannot on its own stop it. It will take a genuine effort on the part of the State. "Nor did PNGSDP cause the current economic and financial crisis." The Prime Minister’s budgets and borrowings did, compounded by the shocking performance of Ok Tedi once it was expropriated." He said that the solution was straightforward:

- The Prime Minister withdraws from the Singapore litigation;
- The Prime Minister and BHP Billiton Ltd jointly agree to change the definition of Mine Closure in PNGSDP’s Program Rules to trigger the flow and expenditure of the Long Term Fund by PNGSDP; and
- The Prime Minister ceases his attacks on and interference in PNGSDP, with the State signing a legal agreement to that effect.

Sir Mekere said that when these three steps are met, PNGSDP will be able to transfer some money to PNG and recommence its sustainable development program. Under Singapore law, this must be

done in accordance with the program rules, he said. Sir Mekere said that the flow and expenditure of the Long Term Fund will have the following beneficial effects:

- It will boost foreign exchange reserves which will help remove the current constraint on private sector operations;
- It will have a positive spin-off effect on the economy; and
- It will benefit the people of Western Province.

Ramu Nickel mine to cut jobs soon

Post-Courier, May 03, 2016

RAMU Nickel mine will be cutting jobs at its operations at Kurumbukari and Basamuk sites in Madang. The number of employees who will be affected have not been finalised until mid this week. This exercise follows directives that had been issued by the Company President Wang Jicheng over the weekend. The directives are in light of the current suspension following orders issued by the Mineral Resources Authority. "Ramu NiCo Management Limited must institute rationalisation process across the business for its survival during this suspension period and this includes rationalising employee requirements," Mr Wang said. The President said in light of the suspension some employees would remain on duty to undertake mandatory activities while some sent home until the suspension on activities is lifted while others their employment contracts terminated.

KBK Mine Manager Sarimu Kanu during a meeting with the mine's managers yesterday said the project had incurred huge financial losses as a result of the low world prices. Despite this that it had retained all its employees however, with the halting of production that this was an exercise, following the Basamuk incident, it could not afford this exercise in light of its financials. MRA issued the order on Friday April 15 following the fatality of a Chinese national employee and injury of two PNG national employees on Tuesday April 12. Mr Kanu said the two sites are currently evaluating employees, on an objective criteria, to determine the suitable rationalisation category to apply to its staff. "Management knows that this rationalisation will inconvenience workers and their family, but the financial situation presents us with no choice. "Ramu NiCo is placing urgent priority on completing rectification works required and getting the operation running quickly. Your understanding and support in this difficult time is appreciated," the President said.

Questions Raised About Bauxite Mining Deal In Solomons

Licensing deal with Australian companies disputed

By Bradford Theonomi

HONIARA, Solomon Islands (Solomon Star, May 2, 2016) – The Ministry of Mines and Energy has come under questioning after giving Australian mining company, Iron Mountain Mining a prospecting licence for a tenement on Nende Island in Temotu. Iron Mountain Mining obtained shares when signing an option agreement to acquire 50 percent stake in privately held AU Capital Mining, believed to be holders of two prospecting licences for Choiseul and Temotu. "The companies are interested in bauxites." Spokesman for Nende Tribal Landowners, Stanley Bade, said the procedures followed to acquire the letter of intent and the prospecting licences issued by the ministry raised a lot of questions. "This is because of the process of acquiring the signatures for the surface access agreement," Bade said. "They are very dubious in nature and are liable for legal challenge by the Nende tribal landowners," he added. Bade claimed the acquiring of the letter of intent and the prospecting licences were done through force by the responsible officers within the Ministry of Mines.

[PIR editor's note: On May 2, 2016 Solomon Star reported that 'An agreement between AU Capital Mining and Iron Mountain Mining was done outside the government's normal process, without the input from the Ministry of Mines. ... A reliable source told the Sunday Star the Mines ministry does not recognise the agreement because it was done without the ministry's knowledge. ... The source said the recent announcement through the media has nothing to do with the Ministry.']

"This is evident with the mines and minerals board not providing advice to the minister before issuing of the prospecting licence," Bade added. Bade claimed when AU Capital Mining Pty Ltd agents negotiate for the surface access agreement it failed miserably to follow the right procedures. "There was only one awareness meeting and landowners were asked to sign up their signatures as opposed to three meetings according to the rightful procedure. "The three meetings should be awareness, consultation, and the negotiation for the surface access agreement," he said. Bade said the initial negotiation time frame as far as they have known of the rightful procedure is 3 – 6 months. "Surprisingly it took only 12 days to cover West Nende area, but the mapped out tenement covers the entire Island. "Awareness was only done from 1st – 12th December 2015," Bade claimed. This has led to the Ministry of Provincial Government turning down the company's application for provincial business licenses, he said. "It's obvious and the provincial government knows it," he said. Permanent Secretary of Mines Jeffery Deve could not respond to questions put to him before this paper went to the press. He said a formal response to the query will be made once the technical officers responsible are identified.

Lihir plans to optimise mine operations

The National, May 2nd, 2016

LIHIR gold mine in New Ireland has a potential mine life of more than 30 years based on current gold reserves, mine general manager Craig Jetson says. He told a recent stakeholders meeting that an optimisation plan known as the "Lihir Pit Optimisation Plan" would set the pace of the mine's operations into the future. An explanatory note from Lihir owner Newcrest to The National said the optimisation plan was being undertaken to optimise the integrated life of mine plan for Lihir, including seepage barrier options. "It is effectively looking at different mine sequencing and ore scheduling options, the most appropriate mining methods and civil engineering options to help Newcrest decide the best way to expand Lihir's open pit and access additional ore sources," the company said. "One of the key challenges is how to stop the water in Luis Harbour from entering the open pit as the expanded pit gets closer to the harbour edge, hence the references to a seepage barrier." The project had been completed to prefeasibility study stage and in February this year, Newcrest approved the project to progress to feasibility study stage. Highlights from prefeasibility study included:

- Forecast reduction in estimated capital expenditure requirement for the seepage barrier to US\$215 million (K673 million), compared to the US\$1.29 billion (K4.04 billion) in 2013 prefeasibility study which included a cofferdam;
- lateral mine sequence development affirmed; and,
- near shore cut-off wall and harbour infill replacing previously proposed cofferdam.

As part of the feasibility study, Newcrest would work with all relevant government agencies and communities to identify any approvals and consents necessary to implement the proposed mine plan. Craig revealed expansion plans to build an inner harbour wall that is expected to start late this year at an estimated cost of K1 - K1.5 billion. He said completion of the project would set up mining for next 30 years. "That's a bright future for the Lihirian people and Papua New Guinea," he said. "It is great to work with an asset of much inherent value such as Lihir."

India keen to develop resources sector

The National, May 2nd, 2016

India is keen to help Papua New Guinea develop its rich natural resources, says President Shri Pranab Mukherjee. Speaking at a State Dinner hosted for him at Parliament on Thursday night, Mukherjee said PNG was blessed with fertile soil, land rich in natural resources and abundant marine wealth. “Our public and private sector are keen to join you in exploring your gas and oil reserves, establishing downstream industries and developing the infrastructure that you require in different sectors of your growing economy,” he said. “We have much to offer. “At this time – when both our nations have prioritised the sustainable use of ocean and marine resources – there are infinite opportunities that must be seized. The shifting of the centre of gravity of the global economy to this region is another compelling reason for our intensified cooperation in sectors of common interest. “Let the universal interest of ‘Sulah-Kul’ and ‘Vasudeva Kudumbakam’ bind us closer as we determine to build on our complementarities.” Mukherjee said Indian Prime Minister Narendra Modi articulated the vision of his government in 2014 to build enduring partnerships with other countries. “A number of initiatives announced at the first Fipic(Forum for India and Pacific Islands Cooperation) summit have borne fruit and India remains committed to this process.”

State takes equity in 5-star hotel owned by landowners

PNGmirror.com, 2 March 2016



Star Mountain Plaza.

THE National Executive Council has approved the commercial terms for the State’s participation and investment in the Star Mountain Plaza Project in Port Moresby. Prime Minister Peter O’Neill said the project and its facilities are very important to the successful hosting of the Asia Pacific Economic Cooperation (APEC) Leaders’ Summit in Port Moresby in 2018, and the long term development of PNG’s vast tourism potential. Prime Minister O’Neill said the five star hotel is a mixed-use, fully integrated development project in Port Moresby to be developed by the company, Star Mountain Plaza Ltd. “It will be developed in three stages; the first include a convention and performing arts centre which totals 3,900 square meters of convention and meeting space over 4 levels, a restaurant, café and related facilities. “A 212 room hotel and 140 residential apartments will also

be built to be used for APEC related meetings. It is critically important that we provide adequate facilities to host the APEC Economic Leaders' Meetings and the CEO Summit 2018", he said.

Stage 1 of the project will also include a 568 space car park building to support the core development. Prime Minister O'Neill said the State will invest in the project through a special purpose State owned company to be incorporated under the Companies Act 1997, called the 'APEC Infrastructure Investment Corporation' (AIIC). "The overall construction of Stage 1 of the Star Mountain Plaza Project is projected to cost around K1,100 million with the second stage to include a second hotel at a further cost of K450 million. "The State will contribute a total of K316 million (that is K222 million in Stage 1 and a further K94 million for Stage 2) towards the realisation of this aspiration. "It will purchase 20 per cent of the shares by investing K100 million as its first payment towards the project on 1 April 2016 through either its own lenders or the annual budget." When stage one of the project is completed, it will have a convention centre called the Kutubu Convention Centre, a parking space for 441 cars, a 212 room hotel to be called Hilton Hotel at an estimated cost of K700 million. The initial earthworks and construction of the project has started with most of the facilities expected to be completed and delivered by October of 2017, a year ahead of the APEC Summit in 2018.