

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

Vol. 8, No. 2, March – April 2016, 89 pages

Compilation:

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

Copyright: The material is copyrighted by the media and authors quoted.

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>

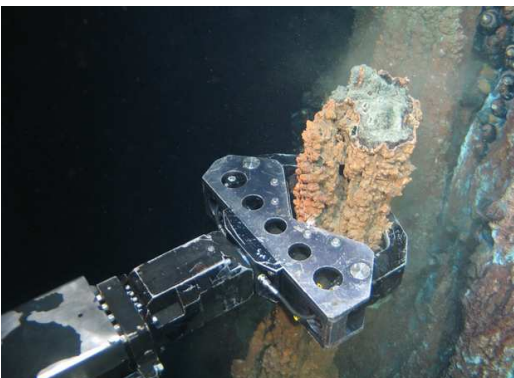
PNG Post-Courier: <http://www.postcourier.com.pg>

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

Pacific urged to be cautious over seabed mining

A new report by the World Bank says Pacific Island countries should be cautious over any plans for mining of the seabed.

Radio New Zealand, 28 April 2016



Sampling copper under the sea Photo: Nautilus Minerals

Released today, the 'Precautionary Management of Deep Sea Mining Potential' report recommends that Pacific countries supporting or considering deep sea mining activities proceed with a high degree of caution to avoid irreversible damage to their ecosystems. It also stresses the need for strong governance arrangements to ensure that appropriate social and environmental safeguards are in place. Papua New Guinea, Fiji, Tonga, Vanuatu and Solomon Islands have all granted permits for deep sea mining exploration and the Cook Islands recently undertook a minerals exploration tender process.



Collecting machine. Photo: Nautilus Minerals

PNG is the only country in the region to have granted a license for ocean floor mining. It has given approval for the Canadian miner Nautilus minerals to launch its Solwara 1 Project in PNG waters in 2018. A recent report by the Pacific Community and the European Union said seabed mining could see [PNG reap economic benefits of US\\$80 million over two years](#). But the World Bank said not enough was known about the environmental and social impacts of the enterprise and likewise the appropriate fiscal regime and economic benefit to deep sea mining were not yet clearly understood.

Activists Crash a Shareholders Meeting to Raise Issues of Rape at Barrick Mines

by Hilary Beaumont, Vice News, April 28, 2016



Four activists crashed the annual general meeting of the world's biggest gold mining company on Tuesday morning while, outside, around 60 protesters chanted at company shareholders, "Quit while you're ahead, Barrick Gold is dead." But inside the meeting in front of about 200 shareholders, Barrick Gold's executive chairman of the board John Thornton emphasized that "Barrick is back" and "gold is here to stay." While the company pushed the message that it was taking human rights seriously, four activists used proxy shares to speak about rape allegations and environmental damage at the company's mines in Papua New Guinea, Tanzania and Argentina. Given a chance to speak at the meeting, MiningWatch Canada Research Co-ordinator Catherine Coumans called Barrick's Porgera mine in Papua New Guinea and its North Mara mine in Tanzania "extremely violent places" where women and men have allegedly been beaten and raped by mine security guards.

At the Porgera mine as recently as December, three men told VICE News they were forced by guards at gunpoint to perform sex acts on one another, despite one man telling the officers he was HIV-positive. More than 120 women have also come forward with rape allegations against security guards employed by the mine. As one of these women told VICE News over the phone: "Rapes, killing, illegal mining activities are still going on. They haven't done anything [to stop it]." In 2010, Barrick acknowledged the problem at the Porgera mine and in 2012 it created a remedy mechanism to compensate alleged rape victims.

To receive compensation, alleged victims had to sign waivers stating they would not sue the company in any court in the world. Coumans said the women are unhappy with the compensation method — a sentiment expressed in a recent report by legal experts at Harvard and Columbia — and asked company president Kelvin Dushinsky whether Barrick plans to consult the women about the mechanism and rescind the waivers they signed. Dushinsky responded at the shareholders meeting that the company has accepted responsibility for the human rights abuses at both mines, which he called "completely unacceptable." He called the remedy mechanisms "very successful."



"We are comfortable with the remedy framework that we've put in place," he said. Another activist used her proxy shares to raise concerns about Barrick's Veladero mine in Argentina, where an open pipe valve leaked over one million litres of cyanide into a nearby river last September, prompting the local government to issue drinking water warnings. While locals used to swim in the river, drink the water, and grow some of the best produce in the region, the spill has "dramatically changed" life in the area, the activist said, reading a statement from locals who live near the mine. Now, people are afraid to swim in or drink the water. "Our town will never be the same," the statement from locals said. Dushinsky acknowledged earlier in the meeting that there had been "an unfortunate event." He said the company had acted quickly to contain the spill and work with local regulators to mitigate damage, fix the problem and test the water. Preliminary testing by the United Nations found the cyanide didn't affect the local water supply, but that didn't stop locals from stocking up on bottled water, fearing the worst.

"Extensive water sampling that we conducted showed that we actually posed no risk to human health or to the aquatic environment downstream of the mine, but in any event, an incident like that is entirely unacceptable," Dushinsky said. "So we're placing a greater emphasis on environmental performance this year, with higher standards tied directly to compensation, and that goes throughout the company. We can do better and we will." Previously Barrick said a faulty valve had caused the issue, but at Tuesday's meeting Dushinsky said it was an operator error. Between 2011 and 2012 there were three other cyanide leaks at the same mine. The company told Reuters those incidents were "duly reported to the appropriate authorities." Beyond promises to work on its environmental and human rights issues, Barrick announced a first quarter net loss of \$83 million this year amid

slumping gold prices, but cut its debt load by \$842 million in the last year. To address the losses, Barrick recently sold off non-core assets and shrunk the size of its Toronto headquarters by half — layoffs Dushinsky characterized Tuesday as "unclogging of the arteries."

Mining, petroleum industry behind economic growth: Aopi

The National, April 28th, 2016

THE national economy doubles its size every seven to 10 years largely driven by the mining and petroleum industry, says PNG Chamber of Mines and Petroleum president Gereia Aopi. He told business leaders from the 21 Apec economies who attended a Business Advisory Council meeting in Port Moresby this week that more recently, exports of minerals and oil had grown. "Driven largely by mining and petroleum, the PNG economy has doubled in size every seven to 10 years since Independence in 1975," he said. Aopi said the PNG LNG project enabled the nation's gross domestic product to double from K21 billion in 2009 to K43.3 billion in 2014. "To prepare for the advent of the PNG LNG project and the revenues it generates, the Government has set up a Sovereign Wealth Fund to sequester some of this income for application for future development," he said. "The PNG Government and many of the resource operators were also signatories to Extractive Industry Transparency Initiative. This provides a good deal of transparency to the payments being made by resource operators to the State. He said PNG was accepted as a candidate country of EITI in March 2014. "The industry has been working very closely with the Government to achieve this," Aopi said.

2nd Gas project a no-goer, landowners say

The National, April 28th, 2016

GULF Governor Havila Kavov and landowner leaders have declared that the Papua LNG Project is a no-goer unless developer Total SA complies with all their demands, especially relating to the pipeline. They said yesterday that they were united in their resolve not to allow the project to go ahead unless the gas was processed in Gulf for export. Kavov said if this was not complied with, Gulf wanted 50 per cent of Government stake in the project, and 90 per cent of tax projects. He said Gulf must also own 100 per cent of the pipeline. "That is a slap in the face of the people of Gulf province, and a disgrace by the developer, who knows that the resource belongs to the people," Kavov, surrounded by landowner leaders, said. "The integrity of the people of Papua New Guinea, under the constitution, must be protected by the Government. "They have gone to bed with the developer, listening to the developer, rather than the people. "The whole call of the people of Gulf province, and the government of Gulf province, is that the resource be developed in the province so it has a flow-on effect on the social and economic development of the province and the country. "This country is resource-rich, but how do we tangibly maximise on this resource having an impact on the lives of our people? "I've always said in the past that Gulf has been 100 per cent an exporter of raw materials, at a low price, and importing the finished product – making this country a loser."

Kavov said the country needed to be placed on the path to industrialisation and if natural resources could not be processed in the country, "how do you expect to drive the country down that pathway?" "Any government, in its right mind, would like to see an industrialisation drive by maximising its natural resources – stripping, processing the product here and adding value to it," he said. "We would like to see the Gulf LNG Project is stripped, extracted and processed from Gulf's ports. "The call was made two, three, four years ago. "We see that Gulf can become a gas-exporting hub, and buyers come and buy from the hub, rather than us exporting to Singapore. "This is why my provincial government, and landowners and local level governments, stand strong. "Despite whatever happens, we will not allow pipeline to leave the shores of Gulf province, until Government and the

developer come up with a best approach.” Kavvo said PNG was not a country for outsiders to come and manipulate.

Solwara Warriors want govt to ban experimental seabed mining

BY: syagi, PNG Loop, April 27, 2016



The recently formed Alliance of Solwara Warriors is demanding the government of PNG to ban experimental seabed mining in PNG. Nautilus Minerals is scheduled to start its experimental seabed mining production in 2018. Since 2008, from Madang to New Ireland and East New Britain provinces, people have been calling on the government to stop experimental seabed mining in PNG. Because the government has ignored these concerns Nautilus Minerals has pushed ahead testing the technologies which they plan to use. Nautilus Minerals is rushing to 2018 without addressing issues raised in various petitions through non-government organisations, the Evangelical Lutheran Church of PNG as well as the peoples of the West Coast of New Ireland and East New Britain Provinces. Speaking on behalf of the Alliance of Solwara Warriors, Melchoir Ware said: “We will not let the government continue to ignore us. The sea is our life. We exist because the sea exists. We will not continue to remain quiet and passive. We have a responsibility to those generations that come after us; to those yet unborn.” The Alliance of Solwara Warriors is calling on all PNGeans to stand up and defend the Bismarck Sea and all other seas under threat from seabed mining.

Landowners vow to work with Ramu NiCo

The National, April 27th, 2016

THE four principal clans from Kurumbukari in the Bundi local level government where the Ramu Nickel project mine operates have pledged to work with the Ramu NiCo Management (MCC) Ltd. Clan leaders from Maure, Imuruva, Nokoboi, Pagazi, including the road and water easement under SML8 (special mining lease 8) met with KBK mine management led by general manager Sarimu Kanu last Saturday. As part of ongoing information sharing and awareness on mine operations update, the KBK mine management briefed the landowners on the order from the Mineral Resources Authority to cease the HPAL (high pressure acid leach) operation at the Basamuk refinery following a death there of a Chinese employee two weeks ago.

“Incidents and fatalities happen in other mines and we are unfortunately in this situation,” Kanu said. “We are going through the normal process under the law and will take some time but need your understanding and cooperation Eddie Utu, on behalf of the clans and the Kurumbukari

Landowners Association, said the landowners did not wish to see the mine or the Ramu NiCo project suspend operation for a long period. “We support the project and will disseminate the information to our local villagers on the incident.” One Chinese expatriate and two Papua New Guinea national employees were conducting a HPAL preheating task utilising high pressure steam when the incident occurred. MCC halted operations at the plant which remains on care nad maintenance.

Industry driving PNG’s economy

Post-Courier, April 27, 2016

THE petroleum industry has contributed significantly to PNG’s economic development since 1991, business executives attending the current APEC Business Advisory Council meeting in Port Moresby were told on Monday. PNG petroleum industry veteran and Oil Search managing director Peter Botten told the meeting that since oil production and export commenced in PNG in 1991, the industry has invested more than US\$53 billion (K127.80b) in the country, up to the end of 2015. Mr Botten, the man behind Oil Search’s growth and thriving success in the country, said of this amount, about US\$25 billion (K76.69 billion) was in the last five years, since construction and production commenced for the PNG LNG project. He attributed the success of the industry to the strong operating environment, underpinned by strong fiscal and operating stability over this period. Mr Botten said PNG was unique in that it allowed landowners to be directly involved in these large scale mining and petroleum projects, something that is not seen elsewhere globally. He said whilst PNG still provided significant opportunities for further development, it is also facing new challenges, in the face of low commodity prices, smaller benefit streams and enhanced expectations.

The significance of the sector’s contribution to Papua New Guinea development is immense. According to the World Bank, since the sanction of the PNG LNG project, over the last four years, PNG LNG project construction and other resource industry activity has lifted the country’s gross domestic product from US\$8.1 billion(K24.85 b) to US\$16.9 billion (K51.84b), a growth of more than 11 per cent. Highlighting the industry’s contribution, Mr Botten said the direct benefits to the State include; petroleum tax, salaries and wages tax, duties, withholding taxes and development levies, royalties and equity dividends. The indirect benefits include employment and training, local business development, tax credit projects, infrastructure, public health, child maternal health, agricultural programs and community infrastructure. Mr Botten reiterated that PNG has an enviable record of delivery of world class mining and petroleum projects, with an unprecedented involvement by landowners and multi stakeholder involvement. He said whilst significant opportunities remain for resource development in PNG, which remain attractive even with low commodity prices, the realisation of these opportunities depends on a stable operating environment, driven by community and government support.

Extractive sector vital

The National, April 27th, 2016

By Gedion Timothy Lapan

PAPUA New Guinea Chamber of Mines and Petroleum president Gereia Aopi says the nation’s past 40 years of growth was achieved on the back of the extractive industry. He told business leaders at the second APEC Business Advisory Council summit in Port Moresby that the extractive industry remained important to the economy. “Much of what has been achieved in recent years would not have been possible without the commodities boom from 2004 to 2012, except of course for the blip that was the global financial crisis in 2008-09,” he said. “Papua New Guinea’s extractives sector is a backbone to the country’s national economy, providing up to 80 per cent of export revenues and almost as much in terms of direct and indirect revenues to the Government.” He said the mining and

petroleum sector had some “which have economic lives of 20 to 30 years”. It included the abandoned Panguna and Misima mines, OK Tedi in Western, Porgera in Enga, Lihir in New Ireland, Hidden Valley in Morobe, Ramu Nickel Mine in Madang and Simberi in New Ireland.

He said the country’s hydrocarbons industry received a tremendous boost with the start of exports of the liquefied natural gas in May 2014, after the four-year US\$19 billion (K58 billion) construction of the PNG LNG project operated by ExxonMobil. “Although this has a nameplate capacity of 6.9 million tonnes of LNG annually, since production started in May 2014, output has in fact averaged 7.4 million tonnes a year. Associated liquids production is (about) 30,000 barrels a day The PNG LNG Project was completed on schedule and involved tapping gas from the historic oil field areas and green field gas deposits in PNG’s rugged Highlands region, and piping of the gas overland and undersea for a distance of more than 700km to the LNG plant site near Port Moresby.” He said LNG tankers carried the product to long-term contract customers Tokyo Electric and Osaka Gas in Japan, and to China’s Sinopec and the China Petroleum Company in Taiwan.

Shutdown to affect nickel production

The National, April 26th, 2016

HIGHLANDS Pacific Limited says the temporary closure of the Ramu Nickel processing plant in Madang will affect nickel production this year. It said in a statement it had been advised that operations at the Ramu Nickel process plant in Madang would be suspended pending an investigation into the recent death of a worker. Highlands said the duration of the investigation, being conducted by the Papua New Guinea Mineral Resources Authority and the Mines Inspectorate, remained uncertain. It said the impact of the shutdown on production would not be known until they knew how long it would be for. Highlands holds an 8.56 per cent interest in the Ramu joint venture, which is majority owned and operated by Chinese group Metallurgical Corporation of China Ltd. A Chinese employee died when a high pressure steam supply line erupted at the Basamuk nickel refinery. Two locals with him were injured. MCC halted operations at the plant, which remains on care and maintenance. Highlands said one of the injured workers had been released from hospital.

France To Loan New Caledonia Nickel Company \$350 Million

SLN needs huge infusion to stave off collapse

WELLINGTON, New Zealand (Radio New Zealand International, April 25, 2016) – French media reports say the government will lend \$US330 million to stave off the collapse of the loss-making New Caledonian SLN nickel company. The reports say the rescue plan will be announced in Noumea on Friday by the French prime minister, Manuel Valls, who is also due for talks on the territory's institutional future. The terms of the loan are reportedly still under discussion, but the reports say the funds should allow SLN to restructure its operations on the condition that none of its 3,000 employees be laid off for two years. Talks in Paris between the government and SLN's parent company, Eramet, were reportedly deadlocked which triggered the initiative to lend SLN the funds. SLN, which has been the territory's main employer, has been losing more than \$US20 million a month since the recent sharp drop in commodity prices

PNG community organisations unite against seabed mining

Radio New Zealand, 26 April 2016

Transcript

Community-based organisations in the region surrounding Papua New Guinea's Bismarck Sea have united against seabed mining in the country. The PNG Solwara Warriors collective is made up of more than 20 organisations from Madang, New Britain, Manus and New Ireland. One of the front's leaders, Patrick Kaupun, told Koroï Hawkins the decision to unite came after numerous individual petitions to the government by the respective organisations fell on deaf ears.

PATRICK KAUPUN: We are actually asking the Papua New Guinea government to ban seabed mining. We totally disagree and don't want sea bed mining in the Bismarck Sea. So we are asking the Papua New Guinea government to totally ban sea bed mining in our waters, our seas.

KOROÏ HAWKINS: And how many groups are now involved in the Solwara Warriors Group?

PK: We are a total of 20 plus groups which are actually groups from within the Bismarck Area who are actually taking this stand.

KH: It seems amazing that despite this united sort of front against the mining operation or the proposed mining operation, the government continues to go ahead with it?

PK: Well it is quite interesting it is under the PNG government reform systems that we should have got this bottom up planning and people's free prior [and informed] consent. And all those things were not done and it was actually top down. That is why we actually, are standing for our rights, for our democracy and for our country.

KH: And is there any planned action that the PNG Solwara Warriors group is considering in the months and weeks ahead?

PK: Yes we have 20 months from now until 2018 and we are actually planning to come up with a petition that actually represents the overall landowners who live around the whole Bismarck area to come up with one petition and then we have other planned programmes in different provinces which we will use them as a venue to push against sea bed mining.

KH: And has there been any consultation at all from government or from the company itself, in terms of getting to the stage they have got? It seems to be at a rather advanced stage now.

PK: Well the company and the government actually they have, they are working with certain communities. Community groups, which these community groups have been listening to them for the past years during their awareness and all that but they are actually they were promising people and then it turned out that most recently. Early this year they actually declared that people will have no benefit in the sea bed mining. Which that happened in New Ireland. In other areas they actually did not know but this meeting actually got us to actually understand the language that the government and Nautilus were actually using in many different areas in and around the Bismarck Sea.

KH: So the actual benefits to the people in the areas to be mined are actually minimal?

PK: Yes definitely.

PNG community groups unite against seabed mining

Community-based organisations in the region surrounding Papua New Guinea's Bismarck Sea have united against seabed mining in the country.

Radio New Zealand, 26 April 2016

The PNG Solwara Warriors collective is made up of more than 20 organisations from Madang, New Britain, Manus and New Ireland. One of the front's leaders, Patrick Kaupun, said the decision to unite came after numerous individual petitions by the respective organisations fell on deaf ears. The government and mining company, Nautilus, hope to start a world-first operation to mine the Bismarck seabed by 2018, despite vocal opposition from activists and some scientists. Mr Kaupun said a single united petition and major events across the region were being planned to voice their opposi-

tion. "It is under the PNG government reform systems that we should have got this bottom up planning and people's free, prior [and informed] consent, and all those things were not done," Mr Kaupun said. "And it was actually top down [approach] that is why we are actually standing for our rights, for our democracy and for our country."

Latin American organizations call for stronger accountability of Canadian mining overseas

Caritas Canada, 25 April 2016

Development and Peace and Mining Watch Canada are calling on Prime Minister Trudeau to give special attention to an open letter from close to 200 Latin American and international organizations urging for sweeping change to Canada's foreign policy regarding the global mining sector. "Several of the signatory organizations are partner organizations of Development and Peace whose work in the field has been directly affected by Canadian mining," says Mary Durran, Latin America program officer at Development and Peace. "We support their demands for improved oversight by Ottawa of Canadian companies in their overseas operations." Human rights, legal, environmental, Indigenous and farmer organizations with direct experience in mining conflicts in Latin America signed the letter. They welcome the Prime Minister's gestures of support for Indigenous and human rights, while raising concern about Canadian mining from Mexico to Argentina.

"Under prior administrations," the letter observes, "Canada's human rights performance deteriorated considerably, not only in the eyes of the international community, but also from the perspective of the individuals, peoples and communities that live with the negative impacts of Canadian extractive projects." They express hope for change based on past support from Liberal Members of Parliament – including the Prime Minister - "towards the adoption of a legislative framework that would hold state agencies and companies to account for abuses related to Canadian mining companies' overseas operations." "Over the past few years, Hondurans have suffered negative impacts of Canadian mining, including pollution of our environment and of our water supplies by heavy metals, and communities' rights to free, prior and informed consent have been ignored," said Pedro Landa, a Honduran activist whose Jesuit-run organization, Fundacion ERIC is a signatory of the letter.

"A response to this letter is urgently needed from the Canadian government, given heightened repression of mining-affected communities in the region defending their land, water and wellbeing," says Jen Moore, Latin America Coordinator for MiningWatch. "Not only are Latin organizations insisting on accountability for harms, but that harms be prevented in the first place." Among the recommendations set out in the letter are:

- Respect for the rights of Indigenous communities to self-determination and free, prior, and informed consent before any mining activities happen on their territories, as well as respect for non-Indigenous communities saying no to mining;
- An end to Canadian government support, whether through aid, trade, technical assistance or diplomacy, that seek to influence the adoption or modification of regulatory frameworks in recipient countries for extractive projects;
- The incorporation of international human rights and transparency standards in the regulation of credit agencies and public and private investment in extractive activities and safeguards on companies that receive state subsidies;
- A guarantee of effective access to Canadian courts so that victims of violations caused by Canadian business abroad can obtain justice, truth, and reparations;
- The creation of objective and impartial means to effectively monitor and investigate complaints of abuses in connection with Canadian mining companies abroad; and

- A halt to the pursuit of free trade and investment agreements that favor Canadian mining companies over people and the environment, in particular an end to investor-state international arbitration mechanisms, which foreign investors use to protect their investments and evade regulation or accountability for abuses.

In addition to being sent to the Prime Minister, the letter will be delivered to Canadian embassies in affected countries. Open letter to the Prime Minister.

www.devp.org/sites/www.devp.org/files/documents/press-releases/letter_to_trudeau_eng.pdf

Embassy assures Chinese miner

Post-Courier, April 25, 2016

THE Chinese embassy in Port Moresby has assured the developer of the Ramu nickel/cobalt mine in Madang of its support. The embassy's third secretary Hao Lijun expressed this while also conveying the embassy's condolences when he visited Madang last week. The visit follows the incident on April 12 at Ramu NiCo Limited's Basamuk refinery that had left one dead and two others injured. "It is not easy for the company to reach above 90 per cent since load commission in 2012 in spite of the depressing nickel market. We are fully aware of the challenges that the project is faced with," Mr Hao said. He said Ramu NiCo is the largest investment by the Chinese-owned enterprise in a mining industry in the South Pacific region and the embassy places great importance in the project for the two countries benefit.

Ramu NiCo's Vice presidents, Charles Zha, Xu Jian, and Hu Zhiliang in welcoming the third secretary had also briefed him on the incident. "Two national employees involved in the incident are both in stable condition. One employee is still recovering from his injury while the other employee has been discharged. The company head office in Beijing is continuing to provide support and all necessary assistance to the family of the deceased," Mr Zha said. Mr Zha said the Mineral Resources Authority arrived on Thursday April 14, 2016 at the Ramu NiCo Nickel refinery to conduct a preliminary investigation into the incident. "We were issued orders by MRA to cease operations of High Pressure Acid Leach (HPAL) area at Basamuk operations; this includes the withdrawal of persons working within the HPAL operational areas. The order to cease operations requires independent resources to investigate the incident, currently arrangements are being undertaken to engage the appropriate resources," Mr Zha said.

PNGSDP refutes PM's allegation

Post-Courier, April 24, 2016



The chairman of PNG Sustainable Development Program Ltd, Sir Mekere Morauta, today refuted comments made by the Prime Minister about the company. Mr Mekere said PNGSDP does not have any consultants, does not pay any consultants exorbitant fees and does not pay for consultants to fly

first-class around the world. “Mr O’Neill should stop demeaning the Office of the Prime Minister by using it to spread falsehoods about PNGSDP,” Sir Mekere said. “Having a Prime Minister who cannot distinguish between fact and fiction also reflects badly on the nation. “I suggest that the Prime Minister confine himself in the future to the truth, and verify his facts, especially concerning PNGSDP. “I reiterate that PNGSDP does not employ consultants, so the company cannot be paying them exorbitant fees or flying them around the world on first-class tickets. “It is the Prime Minister who employs an army of consultants at huge public expense to defend allegations made against himself personally. He should pay that money back,” Sir Mekere said. Sir Mekere said the Prime Minister had also made false claims about PNGSDP’s Long term Fund. The money in the Long Term Fund is invested overseas, by law, he said. It cannot be accessed until after mine closure, by law.

Landowners want tangible benefits from 2nd LNG

The National, April 21st, 2016

By HELEN TARAWA

Gulf landowners want tangible benefits from the US\$10 billion (K30.94 billion) Elk Antelope Papua LNG project in their province. Purari Development Association general secretary Daniel Evara said the landowners had presented their position paper seven months ago and were still waiting. „We express our bitter disappointment to the Government at being tasked to put together a comprehensive paper,” Evara said. “We thought the Government was making the right move especially the gas agreement and other agreements leading into the development forum for discussions. “They told us to put together a position paper which we did and we went through the National Gas office, Gulf minister’s office and provincial government to tell them that we wanted our development proposal independently from the state. “We should not be rushing into a second LNG project when the first project hasn’t been properly addressed. Policy issues like landowner identification should be undertaken by the state, not the developer. “We have 665,000 hectares of land under one lease, all belonging to these nine tribes. We are a marine province, why do we have to go around the country making pipelines? “We are ready to hold back the development of this project until such time a new government is ready to deal with our issues. “We are not going to jump on the bandwagon of any development.” When they talk about Caution Bay, if Baimuru land structure cannot hold the project there are other places in Gulf.”

Team to study Angabanga River

The National, April 21st, 2016

KAIRUKU-Hiri MP Peter Isoaimo says the district development authority has engaged a consultant to study pollution caused by the Tolukuma Gold Mine on the Angabanga River. He said based on reports from studies done by Industrial Path Search, a private mobile medical services that provided consultant services on healthcare reform, toxic waste discharged from the tailings dam polluted the river system affected people’s health. Isoaimo, who initiated the Angabanga riverine community health project, claimed that based on studies done by Dr Sylvester Kotapu, dangerous chemicals were found in people’s blood. “This can have a detrimental impact on people’s health,” Isoaimo said. He said people could develop cancer and other diseases because they were drinking water from the river, do their washing and go fishing. “I am concerned (whether) the Government was conscious of the health and environmental implications this mining activity might have on the people living downstream from Tolukuma mine.” He said the operator of the project and the Government should not ignore the health implications that the mining activities were having on people but find a solution to safely dispose the waste. He said people’s lives were important.

Simberi Mine may extend life span

The National, April 21st, 2016

THE Simberi mine in New Ireland may have its life span extended, according to a Simberi sulphide prefeasibility study. The study was part of the mine's review for the first quarter this year released yesterday. Chief executive officer Bob Vassie said according to the Simberi study project, the mine's life could be extended for another eight years. He said the study for the sulphite project was completed, subjected to an independent review of the underlying estimates. "The PFS recommends additional value engineering work to refine the feasibility of the project prior to the commencement of a definitive feasibility study to better inform an investment decision," Vassie said. He said an independent review of the underlying resource estimates was nearing completion. Vassie said the project would use existing infrastructure which included mills, airstrips, power station and the camp. "The company is evaluating Simberi sulphide project and its PNG assets against its other potential investment opportunities," he said. He said a strategic review was expected to take about six months to complete.

Nautilus to fund New Ireland health projects

The National, April 20th, 2016

THE New Ireland provincial government and Nautilus Minerals have entered into a public-private partnership to conduct health outreach programmes in the communities near the Solwara 1 project site. Under the partnership, Nautilus will fund annual health outreach programmes in the communities located nearest to its Solwara 1 project site. These programmes will be aligned with provincial and local level government plans. The aim is to achieve measurable improvements in community health outcomes, with a focus on maternal/infant health and infectious disease control. It came out of a workshop where stakeholders including officials from all levels of Government, non-government organisations, donor groups and health professionals discussed a health baseline study completed by Nautilus in 2015. Acting New Ireland provincial administrator Lamiller Pawut thanked Nautilus for helping the people of New Ireland to deliver health programmes. New Ireland health workers will work with experts and health professionals which Nautilus will engage to assist in the implementation of the programmes.

Landowners seek claims for damages in New Ireland province

Post-Courier, April 20, 2016

A GROUP of landowners on Simberi Island in New Ireland Province is asking for K200,000 compensation, from a mining company for exploration on their land. The Anos and Keis Kokomageot landowners of Maragon village say that they have not been consulted. They said that the exploration licence (EL609) by Nord Australex Nominees (PNG) Limited, a subsidiary of Simberi Gold extractors, St Barbara Limited, was unlawfully granted and used to explore on their land without their knowledge. The piece of land is located west of the Island and lies in the non-mining lease area while the mine is in the east coast. Clan chiefs Tom Tamanok, William Jone and Obert Laka said that vegetation were destroyed without consulting the landowners.

The chiefs say that their rights to their customary lands including the right of ownership thereof as expressed by the right to possess, the right to use, and the right to dispose of customary land which have been taken away from the customary landowners, or suspended for the duration or terms of the EL609 as a result of the unlawful grant of the Exploration Licence EL609 to Nord Australex Nominees (PNG) Limited. They were however, offered an amount of K2000 after an enquiry on the unlawful prospecting.

This was declined and offered another offer of K9000 was made but it was also rejected. The landowners feel that their rights to the land were not respected by the foreigners. In a letter from the mining operators, all activity conducted on Anos and Keis Kokmagiot clans customary land is within Exploration Licence 609. Mining Act 1992 Section 23 (1) (a) provides that an exploration licence authorises the holder, in accordance with any conditions to which it may be subject, to enter and occupy the land which comprises the exploration licence for the purpose of carrying out exploration for minerals on that land.

Turnover for alluvial mining at K70m a year in Bougainville

By Anthony Kaybing, Post-Courier, April 20, 2016

Alluvial mining in the Autonomous Region of Bougainville is responsible for an estimated K70 million turnover annually. This staggering amount of unregulated wealth is generated by locals who are involved in small scale mining throughout various areas on Bougainville. The current arrangements on Bougainville's Mining Law and the controversial Mining Moratorium have caused a setback in Bougainville capitalizing on the benefits of this very lucrative industry. As a means to regulate and control artisanal mining on Bougainville in check the ABG's Mining Department is embarking on the creation of Community Mining Licences for areas which have mineral wealth. The CML will be issued by every Council of Elders Offices in each district and this will give landowners the right to have their lands mined using non-mechanized means; small scale mining that does not use any form of machines to mine for gold. ABG Mining Minister, Robin Wilson explained that the CML will be granted to landowners who want their land to be mined. "The ABG Mining Department will provide trainings for COE's on issuing and managing Community Mining License to landowners with gold on their land and to gold dealers who are involved in the buying and selling of the commodity," Mr Wilson said.

With small scale mining being almost independent of government control the Mining Department has effected a grace period for people without a licence to mine and for gold dealers which will end in October of this year. While the Autonomous Bougainville Government is committed to ensuring that mining opportunities in small scale is mutually beneficial for both the people and the Government bureaucrat red tape may prolong the actual implementation of the CML in the districts. The current state of the CML's hinges on the controversial Bougainville Mining Moratorium of 1971 which bars any exploration of mineral wealth beyond the defunct Panguna Mine. The ABG is still yet to decide on lifting the moratorium but there has been overwhelming support by leaders and ordinary citizens alike who want it lifted and for development in Bougainville's mining industry to progress. If and when the Moratorium is lifted interest parties can apply for an exploration license on anywhere on Bougainville.

Harmony reports exploration success

The National, April 19th, 2016

SOUTH African-based Harmony Gold Mining Company has reported "continuing exploration success" at its 100 per cent-held Kili Teke prospect in the Hela. The company announced maiden mineral resource estimate for Kili Teke in November 2015, which showed 128 million tonnes at 0.4 per cent copper and 0.3 grams per tonne (g/t) gold. This deposit contains two main areas of higher-grade quartz stockwork related mineralisation. Drilling of 10 holes of 6820 metres were completed since the release of mineral resource estimate in November. "The latest drilling results support our belief that Kili Teke has the potential to develop into a major new porphyry copper-gold system." The drilling focused on potential to expand these zones along strike and down dip and indicated encouraging results, the company claimed.

Most cases indicated more than 0.5 per cent copper and 0.4 g/t gold. Harmony Gold Mining Company chief executive officer Peter Steenkamp said: “It is a rare phenomenon, in this day and age, to drill a 584 metre borehole and achieve grades averaging over 0.5 per cent copper and 0.35g/t gold from surface. “Massive sulphide lodes averaging 13 per cent copper and 11.4g/t gold are even rarer, which is what we are seeing from our Kili Teke drill results.” Drilling at the prospect continues with two drill rigs. A revised mineral resource estimate including the latest drill results is planned to be released in the September 2016 quarter. The company said have such success was a good news for the shareholders and the company to work confidently.

MRA stops Ramu Nickel mine operation

The National, April 18th, 2016

THE Mineral Resources Authority has ordered Ramu NiCo Management Ltd to stop the operation of its high pressure acid leach in Basamuk, Madang, according to the company. The order also includes the withdrawal of people working in the high pressure acid leach (HPAL) area. Ramu Nico confirmed that the order was issued last Friday following the death of a Chinese employee and the injury to two locals at the refinery last Tuesday. Because operations and production at the Basamuk refinery have ceased, Kurumbukari mine also stopped mining last Tuesday until the Basamuk refinery returns to normal operation. The company said that at around 7.50am last Tuesday, the Chinese expatriate and two locals were conducting a HPAL preheating task using high pressure steam when the incident occurred.

The MRA conducted a preliminary review on Thursday, April 14, and ordered Ramu NiCo to cease operations on the three autoclaves until specific conditions were met. The company said production throughput had been stopped. Ancillary equipment external to HPAL could be operated and maintained as required. The mines inspectors told the company to provide a third party, internationally reputable person/s to conduct an investigation on the incident, establish root cause failure analysis and recommend future establishment of applicable control measures. The company said: “We assure all stakeholders that we will continue to work with MRA and independent investigator/s to determine incident root cause and enact recommendations given by external experts.

Elk-Antelope: 10,000 jobs to be created

The National, April 18th, 2016

MORE than 10,000 jobs are expected to be created when energy developer Total invests about US\$10 billion (K30.94 billion) in the Elk-Antelope gas field project. Chief executive officer and chairman of the French oil and gas company, Patrick Pouyanné, revealed this during his meeting with Prime Minister Peter O’Neill on Friday. “We intend to build our own facilities. It will be a big project – about US\$10 billion and 10,000 people will have jobs,” he said. “The plan is to build all facilities in Caution Bay to benefit from some synergies. We will also build the gas plant in Gulf near Purari River. “There is a lot of gas in Elk Antelope but it’s important to continue the appraisal which will drill another well. Before beginning in 2017, we will be able to confirm the size of the project.” “We know that we will have lows and high in the 20 years, but we are able to decide to invest even if the prices are low today because we know that the price will recover. “We have the financial capacity and we also have the medium and long-term vision in the energy business.” He said the best investments were when the prices were low because the costs were low and there would be more benefits for PNG and Total.

Prime Minister: Time is right to build Elk-Antelope project

The National, April 18th, 2016

By HELEN TARAWA

PRIME Minister Peter O'Neill says it is the right time to build the Elk-Antelope project despite depressed commodity prices. O'Neill after meeting Total chairman and chief executive officer Patrick Pouyanne on Friday said it was great to have a global player investing in the country after the first liquefied natural gas project. He welcomed Pouyanné as "our partner in the Elk-Antelope project" in Gulf. "Total is a major global player for the oil and petroleum business around the world and we are truly honored to have him as our partner in the Papua LNG project," he said. "As soon as the quantity of gas is verified, I'm certain that Total and the partners will announce the final investment decision in 2017. "We will continue to support them as we have done with the first LNG project." O'Neill said the first PNG LNG project was one the low-cost ones in the world. "And I see no reason why the Total project will not follow the similar track as far as cost is concerned," he said. "We look forward to supporting Total in the marketing of LNG as soon as the final investment decisions are made." Total will build two facilities, one in Gulf and one in Port Moresby at Caution Bay.

Bougainville: Momis slams comments

Post-Courier, April 18, 2016

BOUGAINVILLE President John Momis has slammed attacks on comments he made to Parliament on the possibility of lifting the moratorium on mining exploration, calling them "nonsense and lies." The President was responding to statements by former Bougainville Revolutionary Army leader Sam Kauona and a few supporters. They include claims the President is controlling the process to lift the moratorium and doing it solely for the benefit of Bougainville Copper Ltd (BCL) to prevent Bougainvilleans benefitting from mining. The mining moratorium was imposed in 1971 to protect Bougainville from unlimited large-scale mining. The 2015 Bougainville Mining Act allows the ABG Cabinet to lift the moratorium, wholly or partially. But before it can make a decision on this, it must receive advice from the Bougainville Mining Advisory Council and allow a debate in the ABG parliament on its proposal.

"I have no power to lift the moratorium," the President said. "Cabinet has not even developed a position on the issue. So far the only thing we have done is opened public debate on whether the moratorium should be maintained, or lifted. "In the parliamentary debate on April 5, I recommended that the moratorium be lifted only partially. That would give the new Bougainville Mining Department time to build its capacity to manage the new system for receiving exploration licence applications." "My recommendation in the debate on April 5 did not decide the matter. Others contributed to the debate too. Then the debate was adjourned to the next sitting of the parliament to allow members to consult with their constituents."

Mr Momis asked why Mr Kauona is "afraid of public debate about the lifting of the moratorium", adding Kauona's claim his recommendation is intended to look after BCL is "nonsense. BCL was not under the 1971 moratorium." He said that the 2015 Mining Act also abolished all of BCL's exploration licences adjacent to Panguna. "There is no conspiracy between the Autonomous Bougainville Government, BCL and Australia," said the President. "Mr Kauona and his few supporters should stop signing the nonsense (written) for him...They involve desperate attempts to build support for their own economic interests by creating fears about BCL."

Newcrest moves on Hidden Valley

The Australian, April 17, 2016

Investment banks Citi or Credit Suisse are believed have been engaged by the listed gold miner Newcrest to sell its stake in the Hidden Valley asset in Papua New Guinea. The official line is that the company has engaged advisers to explore various options for the mine, which could include further spending on the operation to extract more value or a divestment. However, the appointment by an investment bank typically creates the impression around the market that the asset is for sale. It is thought to be worth tens of millions of dollars rather than hundreds of millions, sources told DataRoom. China's Xijin and South Africa's Gold Fields were named as two of the most likely candidates to bid for Newcrest's share of the mine earlier this year. The mine, one of three that it owns in PNG, has struggled to turn a profit since it started producing gold for sale in 2010, and some question whether the asset, which produces more silver than gold, is shut down rather than sold due to its troubled history.

Union Demonstration Causes Disruption In New Caledonia

Nickel industry problems lead to march on government buildings

WELLINGTON, New Zealand (Radio New Zealand International, April 15, 2016) – Reports from New Caledonia say a demonstration by the CSTNC union has caused disruptions in the capital, Noumea. The union has had pickets in various towns in the territory all week and today hundreds of its members are marching to key government buildings. The union alleges that the crisis in the nickel sector is poorly managed, calling for more support for the SLN smelter which is faced with massive losses. The French government has undertaken to support the territory's nickel industry as it is traditional engine of the territory's economy. SLN is a subsidiary of the French Eramet concern.

OK Tedi outlines new focus

The National, April 15th, 2016

COMMUNITY financial self-reliance is the new focus of the Ok Tedi Development Foundation as it rolls out its 2016 to 2020 strategic direction. The five-year strategic direction was endorsed by the Community Mine Continuation Agreements advisory committee and OTDF board during their meetings last month. The programmes and projects would focus on the theme "Community financial self-reliance through socio-economic initiatives and improved infrastructure". The foundation said it would engage with stakeholders in its priority development sectors of health, education, infrastructure, economic development, and social development. Chairman Musje Werror said the year's strategic direction reflected the company's transition to becoming less dependent on funding from Ok Tedi Mining Limited and assumed greater responsibility as the development vehicle for Western. "In part due to the dry weather in the latter half of 2015, the Foundation staff numbers were reduced and the organisation re-structured consistent with the lessons learned from the previous six years of operations. and the anticipated development needs of the province over the next five years," Werror said.

Spill From Solomons Mine's Tailings Dam Under Control

Toxicology reports on water from river still pending

WELLINGTON, New Zealand (Radio New Zealand International, April 14, 2016) – The Solomon Islands ministry of environment says a major spill-over at the Gold Ridge mine tailings dam has been brought under control. Heavy rains caused the dam to overflow its spillway last month. The

permanent secretary of the ministry said drastic action was taken to avoid a breach in the dam wall, allowing the land-owning company Gold Ridge Community Investments Ltd to pump untreated water from the dam to contain the spill. Melchior Mataki says as of last Friday the company stopped pumping untreated water and returned to treating water in the dam before discharging it. "The ideal situation here is for the discharge from the TSF with treatment. But the unfortunate thing is that if we do not take any measures to stop the spill over then we risk also the integrity of the full dam itself." Melchior Mataki says toxicity results are still pending from water and sediment samples from various streams and rivers below the dam. In the meantime the ministry of health has issued a precautionary warning to communities living downstream of the mine not to use the water for drinking, cooking or bathing.

Ramu NiCo project shuts down temporarily

Post-Courier, April 13, 2016

OPERATIONS at the Ramu nickel mine in Madang have been temporary shut down following the death of one of its staff and hospitalisation of two others. The incident comes just weeks after the company had marked national mine safety week. The company in a statement released yesterday, said the incident had occurred at about 7.50am on Monday. The management said the cause of the accident is yet to be established. It confirmed that the deceased employee was an expatriate from China. The company said every effort had been made by its emergency response team which included medical officers to resuscitate the worker but without success. The management said the two national staff who sustained injuries were airlifted from Basamuk, Raicoast District to Madang and are now recovering at the Modilon General Hospital. "The incident was unfortunate and we are so sad that we have lost one of our employees. "We are in the process of informing his family members," the management said. The incident has been reported to Mineral Resources Authority and the incident scene has been barricaded for further investigation. "We have secured the area and ensured no further injury to our employees. We also advise family members and relatives that all employees are all safe," Ramu NiCo management said.

Momis warns Rio to do clean-up Panguna mine

Post-Courier, April 13, 2016

BOUGAINVILLE President John Momis has warned that Rio Tinto must take responsibility for the environmental clean-up of its abandoned mining operations if it relinquishes its stake in Bougainville Copper Limited. The international mining giant is the 53.6 per cent majority shareholder in BCL. After the passing of the Bougainville Mining (Transitional Arrangements) Act in July 2014, the company announced it would conduct a review into its BCL stake holding. The Act removed BCL's major mining tenements, replacing them with an exploration licence over the former Special Mining Lease in the Panguna area. Mr Momis told senior Rio Tinto representatives bluntly that if the company walked they would be responsible for the environmental clean-up. "I stated firmly the ABG position that Rio must take full responsibility for an environmental clean-up and for dealing with other major mine legacy issues," he told Bougainville Parliament. "We stated clearly the need for Rio to honour the lessons that it had learnt from its Bougainville experience and which it has since applied to its operations world-wide.

"As a result, widely published and advertised Rio policies emphasise principles of corporate social responsibility, informed consent by impacted indigenous communities and the need to operate on the basis of terms that are just for all stakeholders," Mr Momis said. "I can understand that they might have some difficulties with what we put to them. Rio might feel, for example, that its majority-owned subsidiary (BCL) operated legally in accordance with the laws of the day. Yet it lost

everything at Panguna as the result of what they might see as a small violent group opposed to mining. "But if that is Rio's position, then quite apart from the fact that the mine did not close because of Bougainville opposition to mining, in addition Rio would be ignoring its gravely serious responsibilities. "In today's world, there is no doubt that Rio Tinto would be subject to intense international public criticism if it tried to walk away from its responsibilities for the environmental damage and other unjust legacies it created, or contributed to." The President said if Rio decides to end its involvement in BCL, the company must accept its full historic responsibilities and honour its obligations to Bougainvilleans.

PNG Government Attempt To Take Over Bougainville Mine Criticized

ABG President: 'Not an option' for Rio Tinto to sell to National government

PORT MORESBY, Papua New Guinea (PNG Post-Courier, April 13, 2016) – The National Government's ongoing attempts to take over Rio Tinto's shares in Bougainville Copper Limited (BCL) have been slammed by Bougainville President John Momis. The mining company began a review into its BCL holdings after the passing of the Bougainville Mining (Transitional Arrangements) Act in July 2014. The National Government has since expressed interest in the stake holdings. BCL was the operator of the ill-fated Panguna mine which sparked the bloody ten-year Bougainville War. "It is not an option for the National Government to become majority shareholder of BCL," the President told Bougainville Parliament.

[PIR editor's note: On April 13, 2016 PNG Post-Courier reported that 'Bougainville President John Momis has warned that Rio Tinto must take responsibility for the environmental clean-up of its abandoned mining operations if it relinquishes its stake in Bougainville Copper Limited.']

He said the National Government has made a series of attempts since at least 2014 to purchase Rio Tinto's 53.6 per cent equity in BCL. The latest attempt was made in late November last year. Momis told Parliament, "I subsequently met Mr Micah, and then Mr Micah together with the Prime Minister Peter O'Neill. They said it was an urgent necessity for the National Government to purchase the equity as soon as possible. Initially we were told we had to give our agreement by December 7 (2015)," the President told the Parliament. "The reason given was that if PNG did not purchase the equity, there was a grave risk that Rio would sell the equity to an un-named third party. "Mr Micah emphasised how much that would be against the interests of both Bougainville and PNG."

Deeply concerned at the National Government attempts to take control of the Rio Tinto shares, Mr Momis re-established direct communication with the company in Singapore. "I was advised that the Rio process to review its investment was ongoing and that there was no immediate proposal to sell the equity in BCL. "The ABG did make clear our view that if Rio does decide to withdraw from BCL that the ABG strongly opposes transfer of the equity to the National Government. I also indicated that we would then seek transfer of the equity to the ABG."

Cook Islands To Review Seabed Mining Laws

Passed in 2009, first in world SBMA needs updating

By Rashneel Kumar

RAROTONGA, Cook Islands (Cook Islands News, April 12, 2016) – The Cook Islands Seabed Minerals Authority (SBMA) has taken a further step in its efforts to develop a sustainable world class regulatory framework for deep sea mineral activities in the massive Cook Islands Exclusive Economic Zone (EEZ). As the Authority awaits a bid for exploration activities for deep seabed

minerals in the Cook Islands waters, it has already started a comprehensive legal review of its national 2009 Seabed Minerals Act (SBM Act) to improve the effectiveness and clarity of the future processes under the SBMA Act. Seabed Minerals Commissioner Paul Lynch said in 2009, the SBM Act was the first of its type passed in the world, to deal specifically with the wise management national seabed minerals resources. However, he said it had been acknowledged since back in 2012 that the SBM Act would benefit from a full review to ensure that it adopted the latest international best practices and remains user friendly to potential applicants, stakeholders and the SBMA.

"In 2015, we completed the needed Exploration Licencing Regulations. So now this current legal review of SBM Act would be mainly focused now on improving the Act as a whole, with an eye regarding the controls needed even up to the possible extraction process taking place in the future," Lynch said. "This important legal review will also seek to adopt suitable parts of the new Secretariat of the Pacific Community-assisted, regional deep sea minerals law that has now been passed by Tonga and Nauru." The Authority did not receive any bid to explore the ocean floor for minerals in the country's EEZ from the 2015 tender it launched in August last year. The tender which closed in January was aimed at attracting applications for exploration licences over 10 blocks totalling about 100,000 square kilometres of the Cook Islands' 1.83 million square kilometre EEZ. Lynch said late-ly, however, they had received serious interest from a number of companies which were still considering exploring valuable seabed minerals in Cook Islands waters. One of the companies had even contracted a New Zealand scientist to analyse old Cook Islands seabed mineral samples stored with the National Institute of Water and Atmospheric Research (NIWA) in Wellington. Lynch said they would like to do the necessary preparatory exploration work over the next five years and then be ready for the next upturn in the cyclical global minerals market.

He added this was a long term sector and companies need to plan and invest for the long term, with sustainable benefits for all. Lynch said the legal review of the SBM Act aimed to prepare for every possible aspect related to a "good and effective" national seabed minerals sector, including the possible future extraction of the mineral resources in years to come. "Technical work on the current complex legal review is being funded externally by our national development partner, the Commonwealth Secretariat. It has contracted for the SBMA the services of expert legislative drafter, Paul Hibberd. "In 2015, under CITAF funding, Hibberd also drafted our national SBM Licencing Regulations and SBM Act amendment, which were passed unanimously in our Parliament in June 2015. "The results of drafting in this current 2016 legal review will again be shared with a wide range of local and overseas stakeholders for feedback and input."

In 2015, legal assistance on that on-going legal review work of the SBMA was also provided by the SPC EU DSM Project. SBMA were able to recruit short-term legal counsel Amelia Ponton to provide legal support, while local SBMA lawyer Alexandrya Herman went on a UN Seabed Minerals-related study opportunity. "That study is now completed. Both Ponton and Herman were former legal interns of the DSM project." Ponton, who is of English and Tuvaluan descent, graduated from Griffith University in Brisbane with Bachelor of Laws and a Bachelor of Arts Degree majoring in Cultural Sociology. Ponton is now employed in the legal sector in London. Lynch said Ponton was well able to assist the SBMA with legal advice and drafting assistance on relevant legislation, licensing regulations, negotiations and contracts.

Pogera mining, workers agreement praised

The National, April 12th, 2016

AN agreement signed between the Allied Workers Union and Barrick (Niugini) Limited has been described as "the best ever". Union president Dassil Mangapen said the agreement signed on March 22 was an achievement for the workers. It reviewed five areas and contained the bulk of the initial

agreement signed in 2013. It has two new clauses added, including a proposal to implement the Medical Insurance Care, a five percent adjustment to allowance and supplements, another five percent increase to the base pay, and an increase in the education assistance. Department of Labour and Industrial Relations deputy secretary Maria Lavaga said it was very encouraging to see how Porgera had managed its industrial issues focusing on human resources as the most important capital asset. Industrial registrar Helen Saleu told both parties to build on the good partnership. Executive managing director Greg Walker commended representatives of both parties for the leadership displayed throughout the negotiation process. The Porgera Gold Mine is a large gold and silver mining operation in Enga.

Health Warning Issued Over Solomons Mine Spillage

Reports over uncontrolled release of mine tailings unconfirmed

By Pacific Affairs reporter Liam Fox

MELBOURNE, Australia (Radio Australia, April 11, 2016) – Health authorities in Solomon Islands have warned villagers living downstream of the defunct Gold Ridge mine on Guadalcanal island not to use river water because it could be contaminated by arsenic. The warning follows the uncontrolled release of untreated water from the mine's tailings dam. Downstream communities using the Kwara, Tinahula and Matepono rivers are affected. The mine's owner, local landowner company Gold Ridge Community Investment (GCIL), announced at the start of the month it had begun a controlled removal of treated water from the dam, located about 40 kilometres from the capital Honiara.

It was welcome news after several warnings over many months that the dam was close to bursting. There were also fears that the dam's walls could collapse and send a torrent of water and toxic mining waste to communities downstream. At the time, GCIL did not disclose that only days earlier there had been an uncontrolled release of untreated water over the dam's spillway caused by a period of heavy rain. GCIL company secretary Ben Afuga told Radio Australia the situation was under control. "We've actually been doing something for over a month and the tests were done in Australia," Mr Afuga said. "I can confirm the test results have shown, in fact, zero concentration of cyanide and very low concentration of arsenic and other hazardous chemicals."

Villagers advised to prepare for evacuations

But the Ministry of Health and Medical Services has released a statement advising downstream communities not to use rivers for drinking, cooking and bathing. The Ministry said the untreated water from the tailings dam "may carry sediment containing high levels of arsenic". Dr Gavin Mudd, head of environmental engineering at Monash University in Melbourne, backed the Government's findings. "We have an issue where we have water that we know is carrying arsenic and potentially other heavy metals and so on into a local river system, which is far from an ideal outcome." Dr Mudd obtained the results of recent water tests taken downstream from the tailings dam after the uncontrolled release of untreated water. He said they indicated that there was "certainly an arsenic signature there" and the situation was potentially more serious than GCIL had described. The results did not necessarily mean the water was unsafe, Dr Mudd added, but there was "not enough information to make a decision one way or the other".

Long-term environmental risks 'underestimated'

The Health Ministry has advised villagers in affected areas to prepare to evacuate their homes quickly if the dam walls collapse. Dr Mudd said the whole situation was entirely avoidable. "We know the basic engineering concepts in tailings dams and the way they interact with rainfall and storm events so I think at heart, we've consistently underestimated the long-term environmental

risks," he said. "That raises questions about what's next, how do we get this under control so that we don't have waters carrying arsenic at low levels going down a river system?"

The Hidden Costs of ‘Mining Development’: A View from the Rai Coast of PNG

Mineral Policy Institute, April 11, 2016

This article explores how a large-scale mining development located upon the Rai Coast of Papua New Guinea is transforming how a local community value their land. Throughout history, different cultures have ascribed different meanings and values to their local environments. These values are important, as they shape personal and collective behaviours – behaviours that largely determine the long-term sustainability of communities and societies (Diamond, 2005). It is a grim fact of the modern condition, however, that there remains little opportunity for people to express the value of land beyond simple economic measures. Indeed, much has been written about the universalising qualities of neoliberal globalisation and how it affects peoples’ attitudes and values towards land (e.g. Plumwood, 2002; Shiva, 1993). To be ‘rational’ human beings in the neoliberal age is to conform to the logic of the market. To do so, we are required to think of land as ‘property’ and to view ‘value’ purely within economic terms. In the process, the intangible value of land – as a place of home, identity, spirit and culture – is silenced, or lost.

Over the last twenty years, neoliberal-styled globalisation has spread to all corners of the Earth. Even in the most remote places, conflicts between industrialised and traditional modes of valuing land now exist. This is evident in research conducted by Professor James Leach: Directeur de Recherche at the Centre for Research and Documentation on Oceania (CREDO) and ARC Fellow with the University of Western Australia. Over the course of two papers (2011, 2014) Leach examines how a modern mining venture is impacting relationships between people and land in Reite, a small community located on the Rai Coast of Papua New Guinea (PNG).



Image: James Leach

Like many communities throughout PNG, the Reite are mostly subsistence farmers who depend upon locally sourced tubers and vegetables, hunting, and some small-scale cash crops. In a very direct sense, the Reite are dependent upon the land for their nourishment, shelter, livelihoods and well-being. The most striking feature of Leach’s writing, however, is his ability to portray the centrality of land for the Reite’s way of life. The Reite’s relationship to land, and to each other, is one of mutual interdependence and reciprocity. It is a way of life in which the boundaries between self,

other and land blur. As Leach observes: “The Reite social world is one in which land and people are explicitly and consciously interwoven in the processes of social formation, production, and reproduction [...] Kinship is rooted in particular places; land underwrites the social relationships it nurtures” (2011, p. 310).

Put simply, the Reite are “land made mobile” (Leach, 2011, p. 312). The importance of taro in Reite culture demonstrates the interrelatedness that exists between land, family and self. Taro is a staple food source gardened in the forests surrounding the community. In addition to nourishing bodies, Leach observes: “taro gardening provides form and structure to people’s activities, to their interactions, and to the landscape in which it has played a part” (2015, p. 59). Young people gain knowledge of the taro and of its gardening as part of their initiation into the Reite community. Once completed, the young person becomes a full member of a social structure whose origins, present and future is bound to taro and to the land from which it is grown. Here, the notion that the self can exist independently of land cannot occur, for the Reite see themselves as people whose existence is contingent upon, and emergent from, the taro deity. The land is thus animated, nurtured and valued by the Reite as the basis and source of all things.

The sense of interconnectedness and reciprocity the Reite feel towards the land is, perhaps, difficult to apprehend for those of us who have been taught to view land as mere “property”. It is testament to the strength of Leach’s writing, however, that we are invited to see the land as the Reite do. And it is from this position of empathy for the Reite’s worldview that Leach’s work gives us insight into the paradoxes that exist for the Reite in their relationships with mining specifically, and neoliberal ways of valuing land more generally. Located 20 kilometres from the Reite community is Ramu Nickel’s Basamuk processing plant. The facility has been a source of great consternation for the Reite people since construction began in 2006. Much of the community concern relates to potential impacts on the regions’ flora, fauna and fisheries, as well to the livelihoods of those located near and around the processing plant. Of particular concern to the wider Rai Coast community was Ramu’s proposal to dispose of mine tailings using a method known as ‘Deep Sea Tailings Disposal’ – a controversial practice banned in many countries, including the United States and Australia – and the lack of environmental oversight provided by PNG’s pro-development government.

Stories about local communities fighting mining developments and complicit governments are all too common (think Ok Tedi, Panguna, Porgera, Misima and Tolukuma to name a few). Where Leach’s research departs from the usual analysis of community-development conflict, however, is to examine how proximity to the Basamuk processing plant is changing the Reite’s relationships to land, degrading the Reite’s way of life, and undermining the health of their local environments. This is a transformation that is familiar and symptomatic of broader development changes in PNG. To understand this process, it is first necessary to provide some context. Since gaining independence in 1975, PNG has protected the rights of its citizens to uphold traditional land practices through the mechanism of ‘customary tenure’. Customary land tenure has its basis in customary law, the content of which is reflective of the societal customs, values and beliefs of those to whom it applies.

In the case of the Reite and other landowners throughout PNG, customary land tenure has allowed these people to maintain control over their lands and to participate in forms of land management consistent with their cultural beliefs. According to Leach, however, customary landowner rights have been eroded throughout PNG over recent years by ‘neo-liberal’ economic advisers based in Australia who argue that the economic value ‘locked away’ in customary land should be realised and re-invested in Western-styled ‘development’ (2015, p. 55). In part due to these pressures, the PNG Government passed new legislation in 2009 that allows ‘Incorporated Land Groups’ to lease land under customary tenure for the purposes of deriving compensation from mining activities that use or destroy land (Independent State of Papua New Guinea, 2009 as cited in Leach, 2015).



Image: James Leach

Although the leasing of customary land via Incorporated Land Groups is an entirely voluntary process, Leach argues that these amendments to customary title arrangements play on the Reite's fears of losing autonomy over their land. As the Reite see it, either they will lose their land to extractors, or they will miss out on the perceived benefits of mining development (e.g. money, education, employment opportunities) if they fail to join an Incorporated Land Group. This has resulted in many people paying significant amounts of money to join land groups in the attempt to protect their claim to the economic benefits that are assumed to come with mining development. Not only has this process caused much social division as individuals fight each other's claims over land, the situation is also accelerating a transition from traditional modes of relating to land to one based upon private property rights and economic exploitation.

Partly as a result of this milieu of legislative and social change, traditional ways of according value to land have come under immense pressure. According to Leach, many people in the Reite community consider themselves to be living in the *'time of money'* as opposed to the *'time of taro and yam.'* Broadly defined, this speaks to the Reite's perception of themselves as people who now accord more importance to 'money' than to traditional and customary values. As a consequence, people are increasingly realising the economic value of their land by transitioning from subsistence horticulture to a 'market-orientated' agriculture. In the case of the Reite, the transformation is exacerbated by the existence of Ramu NiCo's Basamuk processing plant. Desperate to participate in the money economy but having no direct access to the benefits of the mine (the mine neither employs nor pays compensation to the Reite), community members have taken to growing cash crops to sell to the catering companies that service the mine workers. In this sense, not only does the processing plant act as a powerful symbol of the perceived virtues of Western-styled development, it also creates the markets that incentivise the growth of market-agriculture.

It is an intriguing aspect of Leach's analysis that the Reite's shift from traditional land-use relationships to a market-based agriculture is motivated not so much by economic necessity, but by the imaged power of money to deliver a future of wealth and ease. Indeed, as Leach's analysis clearly demonstrates, Reite farmers receive such poor prices for their cash crops that market-based agriculture exists only to the extent that it is supported by subsistence farming. In the pursuit of cash-cropping, however, not only is the area left for traditional taro gardening and hunting diminishing, in many instances the land itself has become degraded as individuals seek to maximise their economic return. When challenged about their over-exploitative behaviour, Leach notes many individuals reply with a stock answer: *"now is the time of money, and the land is their land to do with as*

they wish” (p. 58). It is therefore a terrible irony that the more the Reite pursue market-based agriculture and the more they destroy the land required for subsistence farming, the more likely the Reite will be left without a viable version for either mode of food production. And in the process, the Reite people are caught in a paradox in which the fear of losing their land motivates them to participate in a process that further alienates from the land they fear to lose, the cultural and familial bonds they wish to retain, and the wealth they so desire.

We can hardly blame the Reite for wanting to better their situation. As a people who lack access to even the most basic conveniences of modern living the pursuit of wealth via market agriculture is understandable. However, like so many marginalised people unwittingly or unwillingly brought into the fold of the global money economy, the Reite are subject to the full force of its unequal machinations.

The themes raised in Leach’s research have broader implications for global society in the 21st century. An increasing number of scholars have argued that there is something very wrong with how dominant modes of economic thought value land, people and places. Not only does the dominate mode of economic thought tend to disappear alternative modes of land valuation (Shiva, 1993), it also encourages a particular way of perceiving land that allows people to justify its exploitation (Berry, 1995). In the process, cultural and ecological diversity becomes diminished as communities reimagine themselves as market actors rather than members of an ecological community. It is this cultural transition, perhaps more so than any other factor, which underpins the non-sustainability of our global society. In this sense, if the Reite way of life were to fade away – subsumed into the folds of the globalised money economy – we should all mourn its passing, for gone will be another unique expression of the human mind that could teach us how to live in harmony with the world neoliberalism is so desperate to sacrifice in the name of ‘rational’ economic development.

Author: Neville Ellis – first appeared in the Mining Monitor, Vol.6. March 2016

[The hidden costs of ‘mining development’: a view from the Rai Coast of Papua New Guinea](#)

References

- Berry, W. (1995). *Another turn of the crank: essays by Wendell Berry*. Washington D. C.: Counterpoint.
- Diamond, J. (2005). *Collapse: How Societies Choose to Fail or Succeed*. New York: Viking.
- Leach, J. (2011). “Twenty toea has no power now”: property, customary tenure, and pressure on land near the Ramu Nickel project area, Madang, Papua New Guinea. *Pacific Studies*, 34(2), 295-322.
- Leach, J. (2014). “The time of money”: property and sovereignty as alternative narratives of land and value near the Ramu NiCo mining project (Madang, PNG). *Journal de al Societe des Oceanistes*, 1, 53-62.
- Plumwood, V. (2002). *Environmental culture: the ecological crisis of reason*. London: Routledge.
- Shiva, V. (1993). *Monocultures of the mind: biodiversity, biotechnology and the third world*. Penang, Malaysia: Third World Network.

Unequal distribution of wealth bemoaned

The National, April 11th, 2016

NEW Ireland Governor Sir Julius Chan has bemoaned the manner in which the national economy is being managed despite an abundance of natural resources. Sir Julius, who had overseen the creation of the banking and economic system of PNG, said that his greatest challenge was to translate the great wealth of the national economy into real development, real benefits for every one. “Lately, we have become somewhat complacent. But throughout those tumultuous years (early days of becoming an independent nation with limited natural resources), we were constantly on the alert to ad-

just to changing times.” Sir Julius said that he could not understand why there was an unequal distribution of wealth to every one these days. “Each year, billions of kina worth of minerals, oil, gas, timber, fish and other resources flow out of the country. “According to the corruption perception index, we are the most corrupt country in the Pacific region. In terms of overall human development – which includes health, education and infrastructures - we have fallen consistently over the years. “We are now 158th out of 188 countries in the world. Iraq and Syria, both countries wrecked by war and violence are 37 and 24 places respectively above us.

Sir Julius predicts looming Bougainville-like crisis

The National, April 11th, 2016

By CLIFFORD FAIPARIK

NEW Ireland Governor Sir Julius Chan has predicted that a Bougainville-like crisis is looming among resource-rich provinces. His precaution came last Thursday night as he launched his memoir – *Playing the Game* – detailing his 50 years of national and international politics. “I wrote this book as a wakeup call for all our leaders in politics and all businessmen in PNG,” he said. “If there is one lesson above all that we should have learnt in the past 40 years of independence, it is that those who are treated unfairly by the central Government, those who receive only a pittance of the wealth coming from their land, will not simply sit down and take that abuse. “They will react. They will react strongly. Bougainville has shown that beyond a shadow of a doubt. “And if *Playing the Game* delivers that message, then both the writing of the book and my entire 40 years of political career will not have been in vain.” Sir Julius was also concern about the numerous allegations of corrupt practice in and by the Government. “If the national government fails to curb corruption, if it fails to change the current mining and other laws to give people a fair share of the wealth that is coming from their land, if it fails to recognise the serious threat to the integrity of the country, then more parts of this country will inevitably be forced into following the example of Bougainville. “We can no longer pay only lip service to democracy, to the right of the people to benefit from the wealth of their own land, their own country.”

Solomons Mine Ownership Denies Toxic Overspilling

Rejects Aus SBS report, part of mine de-watering

WELLINGTON, New Zealand (Radio New Zealand International, April 11, 2016) – The chairperson of the community group that owns the Gold Ridge Mine in Solomon Islands has angrily denied reports the mine's tailings dam is dangerously overspilling into nearby rivers. Australia's SBS reported last week that the dam was spilling tens of millions of litres of water polluted with toxins and heavy metals, including arsenic and mercury uncontrollably. It quoted members of downstream communities saying they were panicking and didn't know what was happening. But Walton Naezon, the chair of Gold Ridge Community Investments, which bought the mine last year, said the spill was part of a planned de-watering process to make the mine safe, and communities were warned well in advance. "We have monitored the quality of water, the people downstream are enjoying the water, there is no information received by us, we have visited the site. We went down there, there is nothing. They just made up all this story. I totally reject -- outright -- all these reports." Walton Naezon said the toxins in the rivers were well within required safe levels.

Fiji: Green light for mine

Serafina Silatoga, Fiji Times, April 09, 2016



Members of the Natural Resource Standing Committee from Parliament during their tour to the bauxite mines in Bua last year. Picture: FILE

BAUXITE mining will go ahead in the district of Wainunu in Bua. That has been confirmed by the Tui Wainunu Ratu Orisi Baleitavea who has headed a team of traditional leaders to consult villagers about the mining project. "A lot has been said about bauxite and the lush vegetation of Wainunu and we admit it is all true, including the survey carried out by our children who hail from Bua," Ratu Orisi said. "But there remains a true fact that the people of Wainunu need some form of constant financial income. "And mining is a project that will bring in a lot of income for the people of Wainunu as we all know the hardships we face financially." Ratu Orisi said Wainunu had survived on agriculture but people continued to be in financial needs.

"There are some successful farmers we have but there are other villagers who need assistance in earning a constant income. "So bauxite mining and logging are two major capital projects in the district and logging started in 2014. "The people that will benefit most from these major projects are our children because we have and will put aside money for their education." Ratu Orisi said the traditional leaders didn't want their children to go through the life many of them lived. "We didn't complete our education, most of us dropped out at secondary and even primary school level and we struggled through life. "We don't want our children to go through that life. We want them to be successful people and the money earned from bauxite mining will help them achieve their educational needs." He added such projects would boost development in the district and improve the livelihoods of his people.

Major tailings dam spill at Solomon Islands 'disaster' gold mine

Tens of millions of litres of water has escaped from a toxic gold mine tailings dam in the Solomon Islands declared a 'disaster zone' by the government last year.

By Stefan Armbruster, SBS, 8 Apr 2016

Heavy rain last week pushed the already critically full Gold Ridge dam to overflow uncontrollably for the first time in more than 20 years. Eight-thousand people live downstream from what was, until two years ago, the country's largest mining operation. The shutdown Gold Ridge mine was sold last year by an Australian company to local mine site landowners for \$100.



Water spills over the Gold Ridge tailings dam wall

'We are panicking'

Scientists and villagers fear an environmental disaster is looming. “We are panicking, honestly we are panicking, we don't know what is happening. Woman, pikinini, everyone of us (is) upset,” downstream community leader John Keara told SBS World News. “The government didn't do anything for us. They ignore it, they ignore us. Now we become victims already.” Tens of millions of litres of water escaped from the dam, that contains arsenic and cyanide and heavy metals in its sediment. “At the moment there's really no way to stop the spill way. The spillway was put in to relieve pressure and reduce the risk (of a dam collapse),” said Dr Gavin Mudd, an environmental engineer from Monash University. “That's the way it's supposed to work but the issue though is it's not the end scenario you want, untreated tailings water getting out into the environment. “There is an arsenic issue in the water with processing ore, it comes from the gold ore. Other heavy metals include selenium, mercury is often a very important one, and range of other heavy metals like copper and zinc. “We need to make sure we are monitoring all of those downstream.”



Gold Ridge shut down after extreme flash floods

Australian miner St Barbara shut down Gold Ridge two years ago after extreme flash floods hit the Solomon Islands, damaging the mine and leaving the tailings dam dangerously full. Australian Federal Police were deployed to protect the mine from looters, but the water treatment plant and dam pumps were already damaged. The Solomon Islands government would not allow St Barbara to release untreated water from the tailings dam. A frustrated St Barbara last year sold the mine, and all legal liability, to local landowner company Gold Ridge Community Investment Limited (GCIL) for \$100, with the government's consent.

“St Barbara completed its commitments relating to the sale of the Gold Ridge project in November 2015 and has no remaining obligations in relation to the mine,” the company said in a statement. As a condition of the sale, St Barbara last November installed a new water treatment plant and pumps to dewater the dam but they were only turned on last month. “So far we’ve discharged over 200,000 cubic litres of water and the water has almost stopped discharging from the spillway,” said Walton Naezon, chairman of GCIL. “We have discharged about 96,000 cubic litres of untreated and more than 120,000 cubic litres of treated water. There are some issues but we haven’t experienced any big ones.

'Disaster zone'

The uncontrolled flow over the spillway is estimated at another 100,000 cubic litres of water. “We sent the samples down to Australia and we rule out cyanide, and almost ten different results that came back, it was low. The arsenic was a bit high,” he said of tests conducted more than a year ago. After the sale last year, the Solomon Islands government declared the Gold Ridge mine a “disaster zone”. “You can certainly point fingers at everyone in some capacity and at the end of the day. The environmental risks have not been taken seriously by all parties involved,” said Dr Mudd. “That's government, the mining companies and the communities have underestimated it.” Water samples taken from the tailings dam and downstream this week are due to be tested at the University of Queensland but that will not stop the spill.

An unreleased Health Ministry media statement dated 5 April obtained by SBS warns the water “may contain high levels of arsenic”. “All downstream communities are advised to immediately STOP using the Kwara, Tinahula and Matepono rivers until advised by MHMS (Ministry of Health and Medical Services) and the World Health Organisation that it is safe to do so. "Do NOT use river water for drinking, washing, bathing/swimming or fishing". The Ministry of Health has not responded to an SBS enquiry about the unreleased statement or what action they have taken to inform downstream communities. “We asked them not to use the water, even though the water is clear,” said Walton Naezon, chairman of GCIL. “The people are still using the water to swim, they are still using the water but we advise them to reduce the usage.”

Letter to the editor

Leave mining for the future

Cook Island News, April 07, 2016

With the exploitation of many forms of mineral globally, and the resultant oversupply of minerals collapsing global mineral prices, why don't we just leave the seabed mining of nodules issue alone for a 50-year mandated term for future generations of Cook Islanders to sort out? After all, the technology and the ecosystem repercussions of this deep sea form of exploitative raping of our seabeds, are still pretty much big unknowns, and it's apparent that those individuals who have a vested interest in pushing government into issuing the relevant sea bed mining licencing rights, do so to enrich themselves, and not necessarily in the nation's best interests. If a mandated 50-year moratorium on seabed mining term was legislated, it would allow our own people, together with elected government officials, to observe other island nations and the difficulties and challenges they experience; the good, the bad and the ugly. Then, armed with informed knowledge and better and more advanced technology in this area of deep sea mining, our future peoples and government officials can decide by referendum yes or no, whether or not they will proceed. It's simple really.

Papa Williams, Tauhunu, Manihiki

Heavy Rains Threaten Solomons Gold Mine Tailing Dam

Seeming uncontrolled release of water to river to be tested

HONIARA, Solomon Islands (Solomon Star, April 7, 2016) – The controlled de-watering of Gold Ridge tailings dam in central Guadalcanal is reportedly gone out of control due to heavy rain in the area. Downstream villagers have lodged complaints to health authorities in the past week about the safety of the water that was released into their streams. This had prompted teams from the Ministry of Health's Environment Division and Guadalcanal Province Health Division to visit the dam early this week. Pictures sent to the Solomon Star saw water from the tailings dam flowing freely into the nearby streams. "From our observation, the dewatering process appeared to be out of control," one of the members of the team visiting the site told the Solomon Star. "Due to the heavy rain in the area over the past few days, water from the dam was allowed to flow freely through the spillway into the streams below," the officer said. He said the team had taken samples of the water, which will be tested for its safety in the coming days.

The officer added that they were surprised authorities overseeing the dewatering process have excluded the Ministry of Health in the exercise. "It's the Ministry of Health's technical officers who should be heavily involved in the process. "They are the ones who should be manning the dam's spillway, taking samples every time the tailings water are released to ensure no contaminated water is released into the environment." The dewatering process started late last month. Guadalcanal premier Anthony Veke yesterday confirmed technical officials from his province were dispatched to the tailing dam site because of the heavy rain in the area. MrVeke said the directive given to the officers was to get an independent report on the ground following the rain in the last few days. "With the level of rain in the last few days, we are of the view that it will put the lives of our people living downstream at risk," MrVeke said. "Therefore, we decided to send a team to collect information on the dewatering process in the area," he added.

MrVeke said the team should arrive in Honiara today and will produce a report to the Premier's office. The premier also pointed out that Guadalcanal has been left out in the process of consultation of the tailings dam dewatering process. "We have not been seen as an authority that needs to be informed of the tailings dam dewatering process. "Therefore, we decided to do our own investigation of the situation," he said. The Solomon Star understands the Minister of Health and his Permanent Secretary have been briefed about the situation yesterday. Secretary of Gold Ridge Community Investment Limited (GCIL), the local company that now owns Gold Ridge mine site, Benjamin Afuga, said water released from the dam are treated. He said any claim to do with contamination of the river downstream must come from a specialist. "I just received a report from Dr Simon Albert of University of Queensland who carried out an assessment from the top of Metapona river and downstream," Mr Afuga said.

"The report did not mention anything about contamination," he added. Chairman of Gold Ridge Mining Limited (GRML) Walton Naezon earlier said the de-watering process will take about three months to complete. He said one cubic meter of the treated water from the facility will be discharged into the nearby river. "After the dewatering of the one cubic meter of water from this dam, we will make sure that the remaining waters are treated and dewatered. "This is one of the company's priorities to make sure that the six meters of cubic water content in this dam are dewatered this year," Mr Naezon added. According to operators of the tailings dam treatment plant, about 550 cubic meters of water are expected to be treated per hour and the treatment duration will take up to 59 days. The Permanent Secretary of the Ministry of Environment and Climate Change Dr Melchior Mataka said during the course of the dewatering, the ministry will work alongside the company to make sure that the company complies with the conditions of its licence.

New Caledonia OKs Nickel Exports To China

Government trying to offset loss of export to Australia

WELLINGTON, New Zealand (Radio New Zealand International, April 6, 2016) – The New Caledonian government has authorised the exportation of low grade nickel ore to China to offset the loss of exports to Australia. This also comes after truckers threatened to block the capital, Noumea, to force a favourable decision. Two companies will be allowed to sell 350,000 tonnes each for a year but have to avoid producers which are in direct competition with New Caledonia's smelters. The new export channels are meant to compensate for the loss incurred by the suspension of work at Queensland Nickel in Australia. Last October, the government gave only one company an export licence for China. The entire sector is in a deep crisis, prompting the government last month to release 5.5 million US dollars of a special Nickel Fund to help exporters and contractors hit by the slump of the nickel price.

PNG Fails To Turn Resource Wealth Into Improved Living Standards

Despite high growth rates, human development lagging: Minister

PORT MORESBY, Papua New Guinea (The National, April 5, 2016) – Papua New Guinea has a serious problem of translating its mineral and hydro-carbon wealth to improving living standards, Rural Industries Council chairman Sir Brown Bai says. Speaking at the 19th graduation of the University of Natural Resources and Environment last Thursday, Sir Brown said PNG's social development performance had fallen short of expectations. "Despite the unprecedented positive economic growth of more than 10 per cent in the last 10 years, and the resultant positive economic growth during the period of great mineral, petroleum and gas booms, the revenues have not translated to improvement in the country's human development index."

Sir Brown said while PNG posted a growing economy of 9.2 per cent last year, which was regarded as one of the highest growth rates globally with a current GDP pricing of more than K4000 per annum, the country still lacked translating the wealth into improving living standards. He said PNG's index ranking by the United Nations had dropped from 128th from 175 countries in 1994 to 145th out of 179 in more recent times. "The country's low indexes reflect badly on its efforts to date and concerted effort is needed to uplift these poor development indexes; compare these with other Asia Pacific countries and this record is cause for concern and worry," Sir Brown told 172 graduating students, their teachers, parents and guests, including people from the surrounding communities.

Glaring problems with Pacific Community deep sea mining framework: Blue Ocean Law

ABC Radio Australia, 5 April 2016

An international law firm says a framework for future deep sea mining projects in the Pacific has glaring problems and omissions that could cause problems for indigenous communities and entire nations. Deep sea mining projects could open up a wealth of new resources to the world and new revenue streams for Pacific nations. To prepare for the future, the Pacific Community is developing a regional and legislative framework for Deep Sea Mining. The Blue Ocean Law firm has looked at that framework and says the rights of indigenous people have been omitted, and there are also trans-boundary issues. Julian Aguon is a human rights lawyer at Blue Ocean Law and said indigenous people need protection. "Indigenous peoples have been singularly impacted by large-scale extractive industries, so for deep-sea mining which is so new and so untested, it almost feels as if we're living in a Cold War moment a la the nuclear testing program with the US and the Marshall Islands.

"In Papua New Guinea... We already have reports coming in from communities on the ground of actual adverse impacts on certain traditional and cultural practices, which would otherwise trigger protection under international law."

New Uncertainty About Future Of New Caledonia Nickel Plant

Reports that Glencore may end involvement with Koniambo

WELLINGTON, New Zealand (Radio New Zealand International, April 5, 2016) – There is renewed uncertainty over the commitment of the mining conglomerate Glencore to New Caledonia's Koniambo plant. Last week, it was reported that a deal had been struck for tax relief for a power plant at Koniambo while Glencore assured that no decision about its future engagement would be made before December. But the territory's public broadcaster now says this won't override comments made earlier by the company's head who spoke of a June deadline to decide its future involvement in Koniambo. Glencore has a 49-percent stake in the seven-billion US dollar Koniambo nickel plant which last year needed a furnace rebuild at a cost of about \$US 60 million. The Koniambo plant is majority-owned by SMSP, which belongs to the pro-independence northern province and is seen as a key element in efforts to re-balance the territory's economy dominated by the southern province.

PNG not yet a member of EITI

Post-Courier, April 04, 2016

BY MELISHA YAFOI

PAPUA New Guinea is still a long way from becoming a member of the Extractive Industry Initiative as it is still a candidate country. Head of the national secretariat for the PNG EII Lucas Alkan briefly told the *Post Courier* that in order for PNG to become a full member it has to achieve a number of key milestones under the EITI International requirements. Mr Alkan said the launch of the PNGEITI 2013 report is one of the key prerequisites for PNG to meet global standards such as the release of an annual activity report and follow up actions on the findings and recommendations made from it. He explained that PNGEITI achieved candidacy status in March 2014 and the country have not yet fulfilled all requirements.

He said the team is still working towards meeting all the requirements as set by EITI International Board and this is an ongoing process. "The most critical report that will be used for validating PNG's membership is the PNGEITI second country report that will be due by the end of this year,"he said. He added that the secretariat board based in Oslo, Norway will be engaging an external validator who will be coming into the country by early next year to authenticate the country's candidate status and determine whether it is admitted as a full pledge member of EITI or not. He said currently the PNG EITI secretariat is working on the second report (2014 report) with an independent administrator (auditor) and the multi stakeholder group to ensure its completion by December 31 this year in preparation for its validating early next year.

Chamber hails launch of first EITI report

The National, April 1st, 2016

THE PNG Chamber of Mines and Petroleum says the launching of PNG's first Extractive Industries Transparency Initiative 2013 Report is a significant step in ensuring greater transparency of benefit streams from the resource industry. Executive director Greg Anderson said this following the launching of the report by Prime Minister Peter O'Neill on Wednesday. PNG became a candidate count-

ry for the EITI in March 2014. The EITI is a robust mechanism that facilitates transparency of revenues from oil, gas and mining. It is a global standard to promote open and accountable management of natural resources.

The PNG EITI is guided by a multi-stakeholder group comprising representatives of Government, resource industry and civil society. “The PNG Chamber of Mines and Petroleum which is a member of the PNG EITI multi-stakeholder group strongly supports greater transparency of payments made to the Government by oil, gas and mining companies. These payments play a critical role in PNG’s economy. “The inaugural report contains a number of recommendations for all stakeholders to work together to ensure PNG becomes a fully EITI compliant country. “Enacting the recommendations is critical to ensuring the success of the 2014 report which, in accordance with EITI requirements, must be finalised by the end of 2016.

Petroleum & Mining Resources rights given to people

Post-Courier, April 01, 2016

BY JEFFREY ELAPA

FOR the first time in 40 years, the people of PNG will have complete ownership of the petroleum and mining resources after Parliament passed the ownership laws yesterday. The passing of the Organic Law on ownership of hydrocarbons and minerals, and the consolidation and commercialisation of business law 2014 will establish the Kumul companies that will give effects to the amendments to the section 212 of the Constitution. The law will establish three entities under the Kumul Consolidation companies. The first is the Kumul Petroleum Holdings Limited which replaces the National Petroleum Company Limited that will regulate all State’s oil and gas assets and interest in the petroleum sector.

Secondly, it will establish the Kumul Minerals Holdings Limited which will replace the Petromin PNG Holdings Limited that will regulate all State assets and interest in the mining sector. The third entity to be created will be the Kumul Consolidated Holdings which will replace the Independent Public Business Corporation that will regulate all State-owned enterprises. Prime Minister Peter O’Neill said the new laws give oil and gas back to the people through the State and the Government will address the benefit issue. However he said that the Government will address how the benefit should go right to the people.

Tension Eases In New Caledonia Nickel Export Crisis

Blockade averted; government to authorize export to China

WELLINGTON, New Zealand (Radio New Zealand International, April 1, 2016) – An understanding has been reached in New Caledonia which appears to have averted a truckers' blockade of Noumea. The government is set to authorise the export of one million tonnes of low-grade nickel ore to China when it meets next week. Last Tuesday, it put off a decision, defying an ultimatum by the truckers who sought the export concession. After renewing their threat to block the city, the truckers, the government and miners agreed in talks this week to a process aimed at easing the pressure on the truckers. One political party has welcomed the deal, saying it is to be hoped that the exports won't go to plants which are in competition with New Caledonia's producers.

Deep Sea Mining: PNG's Sensitive Marine Ecosystems

By Simon Judd, Mining Monitor (Mineral Policy Institute), Vol. 6, March 2016, pp. 9-12

The integrity of marine ecosystems all over the world is threatened by human activities such as dumping of rubbish, disposal of chemical and radioactive waste, extraction of oil and gas, and fishing. Mining for sand and minerals in shallow waters has been conducted for decades, but the latest threat to ocean ecosystems comes from mining of the ocean seabed, otherwise known as deep sea mining (DSM) or seabed mining (SBM). Following the publication of an article by Boschen et al. *Seafloor massive sulphide deposits support unique megafaunal assemblages: Implications for seabed mining and conservation* in the scientific journal Marine Environmental Research, this article examines some of the implications of DSM for the ecology of the seabed. In the light of imminent DSM, it asks what conservation actions are required to identify significant risks and protect the biodiversity of ocean seafloor ecosystems. The first deep sea mine?

The Solwara 1 project being undertaken by Nautilus Minerals in Papua New Guinea (PNG) is the world's most developed commercial DSM project. It is located in the Bismarck Sea 30 km offshore of New Britain Island at a depth of 1,600 metres. A mining lease was granted in January 2011 for a gold and copper project. After much delay, the project is scheduled to begin in 2018. If successful, Solwara 1 is likely to be the first of many DSM projects within the Pacific Islands Region. There are three main types of deep sea mineral deposits of commercial interest to industry and governments. In the case of Solwara 1, a Seafloor Massive Sulphide (SMS) deposit is to be exploited. SMS deposits are in deep sea (1,500 m – 5,000 m) hydrothermal vents along volcanically active areas of the ocean floor and typically contain commercially-attractive concentrations of copper, gold, silver, zinc, as well as other trace metals.

What are Seafloor Massive Sulphides?

SMS deposits form through hydrothermal activity. When hot acidic water filters up through the seabed, it cools and releases dissolved minerals that can accumulate to form chimney and mound structures on the seafloor. These chimneys' structures can be either active or inactive, each type hosting a remarkably different group of plants, corals and animals. The ecology of seafloor systems is unlike any other marine or aquatic habitats. They are usually well below the level at which sunlight penetrates the ocean and consequently the organisms found there rely on chemosynthesis rather than photosynthesis. These deep and often remote systems make them one of the rarest and least understood habitats on Earth.

There are about 165 recorded SMS deposits worldwide. Commercial interest is centred in international waters of the Indian Ocean, on the Mid-Atlantic Ridge and in waters of Papua New Guinea (PNG), Vanuatu, Palau, Niue, Fiji, Micronesia, Solomon Islands, Tonga, and New Zealand. New Zealand is particularly relevant here because Boschen's study compared the physical properties and biological assemblages (communities) of two supposedly similar SMS seafloor sites of the north-east coast of New Zealand.

SMS conservation strategies

The main conservation strategy to counter threats to the marine environment has been to create marine protected areas or conservation reserves. This parallels the land-based approach in which a representative area of an ecosystem is designated for conservation. In theory, this area is considered to be both comprehensive and adequate; including all the species, communities and ecological processes of the ecosystem and being sufficiently large enough to persist into the future. These concepts have been applied to the marine environment despite the fact that the nature of physical or ecological boundaries and processes are markedly different in the marine environments. Unfortunately, globally marine protected areas account for a mere 3% of marine habitats and have largely been established in coastal areas to preserve species and habitats at risk from fishing. Given the ge-

neral decline in ocean ecosystems and the lack of protection for the deep sea areas, DSM is a clear threat to marine biodiversity.

In an effort to mitigate against the destructive impacts of DSM on SMS ecosystems, a further distillation of the protected area methodology is used. Where DSM mining is proposed in an area of the seabed, a similar area is proposed as a conservation or reference area. The reference area is excluded from mining to ensure that a representative and stable seabed biological community is retained so that changes can be measured and assessed. Reference zones are intended to be physically and biologically identical to the area being mined and can be source areas for species to recolonise mined areas after mining. SMS deposits provide a variety of seafloor habitats. These include hydrothermally active areas, often with chimney and vent structures, inactive areas with relict structures and non hydrothermal areas with a hard bedrock structure such as lava flows. Studies have suggested that each of these habitats supports a different type of biological community with high degrees of regional endemism. SMS mining has a number of direct initial impacts including; the removal of the majority of the fauna, altered hydrothermal activity, habitat modification and subjecting surrounding habitats to the effects of suspended sediments.

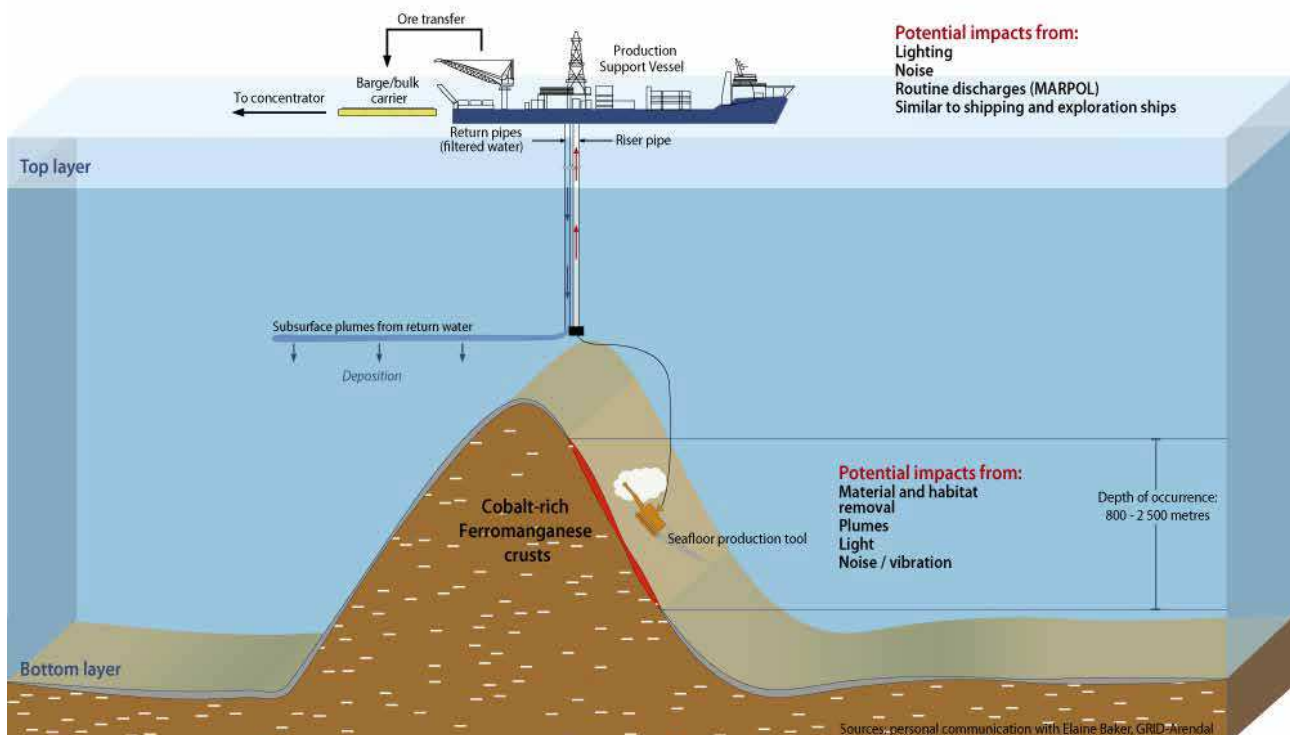
SMS deposits are not particularly stable environments and biological communities in hydrothermally active areas are subject to natural perturbations caused by changes hydrothermal activity. Active vent environments typically have a small number of specialised species which cannot exist away from such environments. Growth rates may be rapid enabling them to disperse and colonise new areas quickly in unstable environments, but species and their lifecycles are poorly understood. The fauna found in inactive vent habitats is remarkably different and is mostly sessile with many slow-growing suspension feeders.



Boschen's study looked at a potential SMS mine and reference site off the north-east coast of New Zealand. One of the sites was a known SMS deposit of commercial interest (Proteus 1) and the other a reference site 200 m away. The reference site was selected because of its similar size and perceived similar characteristics to Proteus 1. The study used remotely collected photographic and video data from between 1 and 6 m above the seabed. Biological and geomorphological data were analysed order to characterize the biological communities found at both the sites and to determine

been implemented. Clearly, there are uncertainties as to whether this will provide a comprehensive representation of the Solwara 1 habitats. The study highlighted in this article and other studies emphasise the importance conducting ecological investigations at multiple spatial scales and which include a regional assessment of the biological assemblages involved. There is a clear need to undertake species identification to the lowest possible taxonomic resolution, to understand community ecology, species distribution and genetics, life histories, resettlement patterns, resilience to disturbance, and to have medium- to long-term continuous time series observations and to understand community dynamics of proposed mining sites over time.

An Environmental and Social Benchmarking Analysis produced by Earth Economics (Batker & Schmidt, 2015) for Nautilus Minerals in May 2015 suggests that “vent fauna is naturally more abundant at sites such as Solwara 1 that are actively venting, than at other deep seafloor areas where venting does not occur”. Clearly, this is a comparison of two different habitats, and is answering the wrong question. It is known that active and inactive areas of the seabed have different biological assemblages. The question is how different is the Solwara 1 site and the reference site, South Su, in a regional context and, in light of the previous study, how similar or different are they to each other. Earth Resources also suggest that species density and diversity at both Solwara 1 and the reference site is low for all habitat zones when compared with other vent systems worldwide. This surely indicates a regional or local difference in assemblages that requires a scientific explanation. Furthermore, they go on to indicate remarkably high levels of genetic diversity amongst microorganisms found at the Solwara site, with few “dominant” species. They state that typical ranges for any given species are generally less than one metre. Species only a few metres away from each other might have little to no relation or shared genetic material. Rather than investigating life histories and dispersal characteristics of the organisms involved, the authors suggest that this is likely due to limited data.



Clearly, the data and ecological understanding of the SMS systems at Solwara 1 are not yet of the required standard. And, as the first operation of its kind, the requirement must be for the most comprehensive assessment possible. This requires the cooperation and resources of nation states, designing and funding multiple, replicable and all-encompassing independent monitoring systems to ensure we actually understand the direct and cumulative impacts of humanity’s latest foray into the oceans. Instead we have Nautilus Minerals, a small company, with no cash flow, implementing un-

tested technologies in a country beset with governance issues. Replacing competence with confidence is unlikely to lead to success, no wonder local communities and marine experts are concerned about and opposed to such a development.

Solomons Gold Mine Starts Tailings Dam Dewatering

Risk of flooding at Gold Ridge reduced

By Ronald Toito'ona

HONIARA, Solomon Islands (Solomon Star, March 31, 2016) – The dewatering treatment for the Gold Ridge Mining Ltd Tailings Storage Facility (TSF) at Gold Ridge in central Guadalcanal is currently underway, starting at around 6pm on Tuesday. This came after the government, through the Ministry of Environment, Climate Change, Disaster Management and Meteorology granted approval on the 19th of this month, for the dewatering process to take place. GOLD Ridge Community Investment Limited (GCIL), a company associated with landowners, is now the new owner of the mining site. A visit by government officials from the Ministry of Environment and Conservation together with members of the media yesterday, have witnessed the dewatering exercises kicking off smoothly. Speaking during the site tour, the Chairman of Gold Ridge Mining Limited (GRML) Walton Naezon said, its a relief, as one of the risky parts of the site has been taken care of.

"One of the risky parts of taking over Gold Ridge has now taken care of and it is a big relief to the company, the people living along the nearby rivers, the government of Solomon Islands and the country as a whole. "This process will take about three months to be completed and 1 meter of the treated water from this facility will be discharged into the nearby river. "This has been one of the top priorities of the company," Mr Naezon said. He added, on behalf of the company and its investor partners, he wished to thank the government through the responsible ministry to see it fit to issue the dewatering license so that the process can be carried out. "After the dewatering of the 1 meter of water from this dam, we will make sure that the remaining waters are treated and dewatered. "This is one of the company's priorities to make sure that the 6 meters of water content in this dam is being dewatered this year," Mr Naezon added.

According to operators of the tailings dam treatment plant, about 550 cubic meters of water will be expected to be treated per hour and the treatment duration will take up to 59 days. Joe Horokou, the Director of the Environment & Conservation Division within the Ministry, was responsible for issuing the license said, the process to grant the dewatering license is not easy. "Before we issue the license to the company, there are a lot of community talks taken place. And at the same time, the company also consider samples from the TSF to make sure that the discharged water is safe," the Director said. Meanwhile, the Permanent Secretary of the Ministry Dr Melchior Mataki said, during the cause of the dewatering, the ministry will work alongside the company to make sure that the company is complying with the conditions of the license.

EITI Report reveals 'gap' in extractive sector

The National, March 31st, 2016

By Eric Balaria

THE country's first Extractive Industry Transparency Initiative report has revealed some inconsistencies in the management of the country's extractive sector. The 2013 PNG EITI report was prepared by independent administrator Ernst and Young, and covers large-scale mining, oil and gas revenues and receipts made to the government. Gaps and inconsistencies were uncovered by the auditor, which included the lack of proper license registries and data management systems, and a lack of transparency over sub-national payments. According to the auditor, the Mineral Resource Authority

and the Department of Petroleum and Energy were also not independently verifying production data given to them. It also noted that there was a risk of corruption in Government agencies,” the report said. “Some agencies had few or absent controls over receipts from the extractive industries.

“We observed that payments were still often made via cash or cheque with manual processes for issuing receipts. “The absence of a robust system for managing payments leaves the system vulnerable to fraud, corruption, and human error.” Ernst and Young noted that information relating to sub-national transfers and payments were difficult to obtain. “Some benefits to regions impacted by extractives are set out in law via royalties, equity stakes, dividends and compensation arrangements. “Others are included in memoranda of understanding on a case-by-case basis. “However, these arrangements are in most cases not public and accountability mechanisms vary significantly.” The report said State-owned entities showed varied levels of capacity and transparency.

Ernst and Young noted that Kumul Consolidated Holdings had a “systematic lack of transparency”, and there were problems in extracting outdated data from the Mineral Resources Development Company. The auditors said these were concerns because both entities managed significant public funds, and denied the Government and people adequate information about their interests, and left room for misappropriation. The report recommended that measures be undertaken to engage State-owned entities in the Extractive Industry Transparency Initiative reporting process and multi-stakeholder group oversight activities. It said Government agencies should update their system of revenue data collection and storage as well as implement digital-based licensing management systems.

More Deals in Readiness for Seabed Mining Boom

By Wendy Laursen, The Maritime Executive, 2016-03-30



Secretary-General of the International Seabed Authority, Nii Allotey Odunton, and Linda Reiners, UKSRL Managing Director.

The International Seabed Authority has signed its first exploration contract for seabed mining for 2016. The deal was signed with the U.K. Seabed Resources Limited (UKSRL) and involves a 15-year contract for the exploration of polymetallic nodules in the eastern part of the Clarion-Clipperton Fracture Zone in the Pacific Ocean west of Mexico. The area allocated to the contractor covers a total surface of 74,919 square kilometers (29,000 square miles). The Clarion-Clipperton Fracture Zone is roughly 80 percent the size of the contiguous United States, and exploration contracts have so far been granted for 25 percent of the area. This latest contract is the 14th contract for exploration for polymetallic nodules in the zone and the second contract for exploration for polymetallic

nodules by UKSRL. UKSRL signed its first exploration contract with the Authority in February 2013 for an area of approximately 116,000 square kilometers (45,000 square miles).

A growing number of contracts

Last year, the Authority signed five new contracts bringing the total number of contracts for exploration around the world to 23 and another five are expected to be signed by July. Between 1984 and 2011, the Authority issued just six leases for mining exploration. In the last five years, it has granted 21. The permits allow for exploration only, but once certain conditions are met, the leases are expected to roll over into ones that allow commercial-scale mining. The new contracts signed in 2015 were for exploration for polymetallic nodules with Marawa Research and Exploration on January 19, and Ocean Mineral Singapore on January 22. Another was for exploration for polymetallic sulfides with the Federal Institute for Geosciences and Natural resources of Germany on May 6 and two for exploration for cobalt-rich ferromanganese crusts with the Ministry of Natural Resources and Environment of the Russian Federation on 10 March and with Companhia de Pesquisa de Recursos Minerais of Brazil on November 9.

Mining prospects

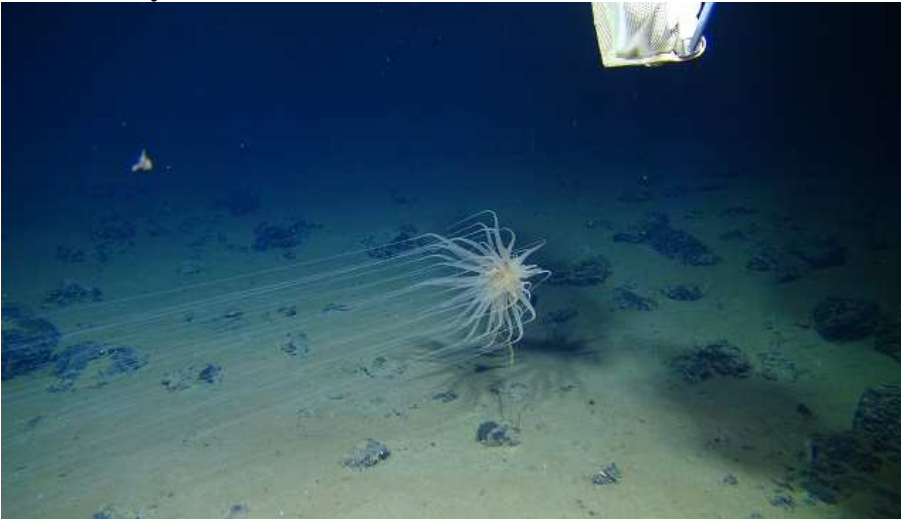


The first discovery of polymetallic nodules occurred in 1873 during a voyage by HMS Challenger. The vessel dredged up “several peculiar black oval bodies which were composed of almost pure manganese oxide.” In 1965, J. L. Mero studied the economic possibilities of manganese nodules mining and predicted that the manganese nodule mining should be a sound business proposition in about 20 years. Subsequently, it was discovered that the nodules cover vast areas of the ocean floor but are more abundant in areas off the west coast of Mexico, the Clarion-Clipperton Fracture Zone, in the Central Indian Ocean Basin and in the Peru basin. The nodules are composed mainly of manganese, iron, silicates and hydroxides. However, it is the trace metal contents such as nickel, copper, cobalt, molybdenum and rare earth elements that are attracting most interest.

The nodules vary in size from micro-nodules to about 20 centimeters (eight inches), the most common size being two to eight centimeters (one to three inches). They occur abundantly as two dimensional deposits at the unconsolidated sediment-water interface and sometime as scantily buried in sediments. The deposits of economic importance occur mostly at four to six thousand meters depths in areas of extremely low sedimentation rate. Sediment accumulates at the rate of a couple of centimeters every 1,000 years, and the modules can take a million years to grow by a few millimeters.

The nodules require a nucleus to start forming. This nucleus could be anything, varying from a piece of pumice, a shark tooth, old nodule piece, basalt debris or even microfossils like radiolaria and foraminifera.

Biodiversity



Relicanthus sp. - a new species from a new order of Cnidaria collected at 4,100 meters in the Clarion-Clipperton Fracture Zone that lives on sponge stalks attached to nodules. Credit: Craig Smith and Diva Amon, Abyssline Project.

Little is known about the marine life of the seafloor in the Clarion-Clipperton Fracture Zone. However, it is known that it contains ecosystems that are rarely perturbed. Under normal circumstances, the deep sea is one of the least changeable ecosystems on Earth.



A 26-year old test mining track (1.5 meters (five feet) wide) created at the seafloor of the CCZ illustrating the extremely slow recovery of these abyssal ecosystems from physical disturbance. Credit: Copyright Ifremer, Nodinaut cruise (2004).

The Abyssline research project (2013-2018) is currently gathering baseline ecosystem information at the abyssal seafloor of the manganese nodule province in the Zone. A paper published in the journal *Science* last year says that seabed mining may cause "serious, unpredictable, and potentially irreversible damage" to portions of the seafloor, and many scientists believe that marine protected areas may give the species the best chance of surviving the coming mining boom. Mining impacts could affect important environmental benefits that the deep sea provides, say the scientists from the

Center for Ocean Solutions. For example, the deep sea is important to the Earth's carbon cycle, capturing a substantial amount of human-emitted carbon which impacts both weather and climate. Mining activities could disturb these deep-sea carbon sinks, releasing excess carbon back into the atmosphere. The deep sea also sustains economically important fisheries, and harbors microorganisms which have proven valuable in a number of pharmaceutical, medical and industrial applications. The Authority is expected to decide this summer whether to accept protected areas proposed in 2013. The areas would nearly 1.7 million square kilometers (650,000 square miles) of the Zone.

Undersea Mountains

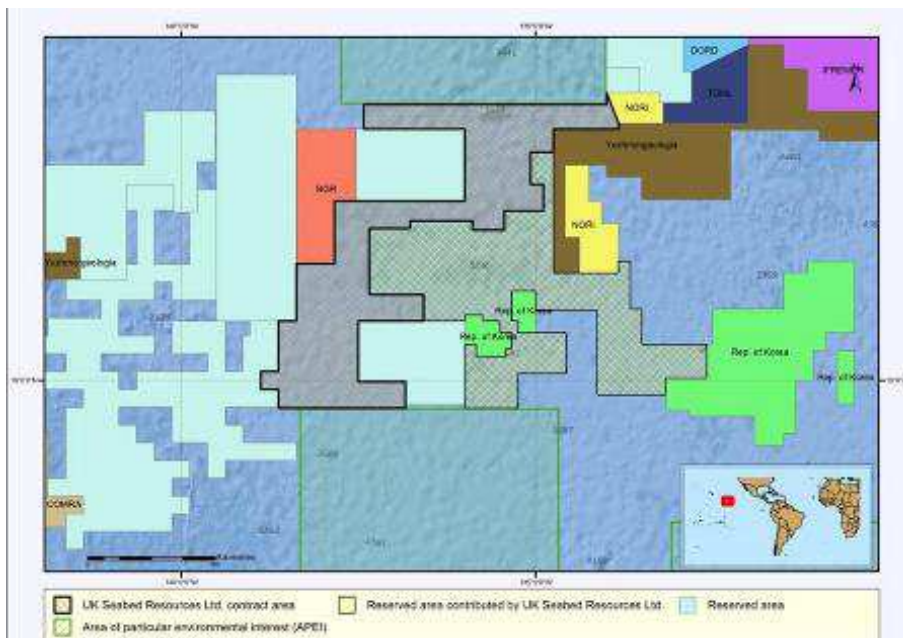
Elsewhere in the ocean, mining companies are preparing to mine the mineral-rich structures that form around hydrothermal vents. The first such project, by Nautilus Minerals, will be in the territorial waters of Papua New Guinea and is expected to begin in 2018.

The Law of the Sea

The Authority, which has its headquarters in Kingston, Jamaica, came into existence on 16 November 1994. The International Seabed Authority is an autonomous international organization established under the 1982 United Nations Convention on the Law of the Sea, and the Authority has been entrusted with the implementation of the "common heritage of mankind" which applies to mineral resources beyond the limits of national jurisdiction. This upholds a vision of sustainable development of mineral resources in the international seabed area and the sharing of benefits and responsibilities for all States, including the land-locked and geographically disadvantaged States.

The Clarion-Clipperton Fracture Zone

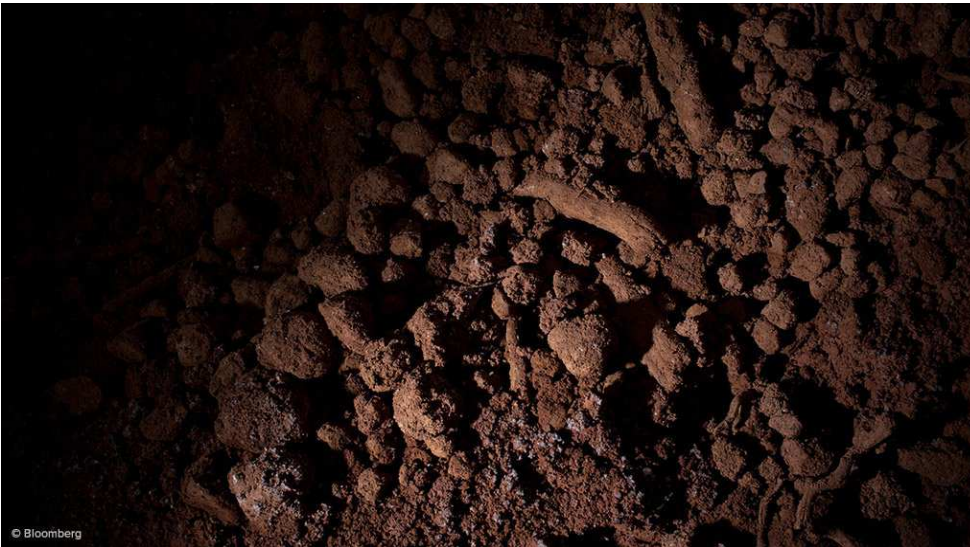
The Clarion-Clipperton Fracture Zone is a geological submarine fracture zone of the Pacific Ocean, with a length of some 7,240 kilometers (4,500 miles). It is one of the five major lineations of the northern Pacific floor, south of the Clarion Fracture Zone, discovered by the Scripps Institution of Oceanography in 1950. The fracture, an unusually mountainous topographical feature, begins east-northeast of the Line Islands and ends in the Middle America Trench off the coast of Central America. It roughly forms a line on the same latitude as Kiribati and Clipperton Island.



UKSRL allocated area (outlined in black) covers a total surface of 74,919 square kilometers in the eastern part of the Clarion-Clipperton Fracture Zone.

Australian Iron Mountain eyes bauxite on Solomon Islands

Mining Weekly, 30th March 2016



PERTH (miningweekly.com) – Junior explorer Iron Mountain Mining has secured an option over two bauxite projects in the Solomon Islands. The company reported on Wednesday that it had signed an option agreement to acquire a 50% stake in privately-held Au Capital Mining, which held two prospecting licences in the Solomon Islands. Under the terms of the agreement, Iron Mountain would pay a nonrefundable option fee of A\$100 000, and if the company elected to proceed with the transaction, Iron Mountain would issue 20-million of its own shares to Au Capital Mining. A further 20-million fully paid shares would be issued to Au Capital Mining on either the first commercial bauxite shipment, or within 12 months of completion of the transaction. The Au Capital Mining tenements include the Nendo project and the Choiseul project.

Iron Mountain MD Robert Sebek said the projects provided the company with the opportunity to explore for, and potentially develop a low-cost mining operation in a region beneficially situated close to end-users in Asia. “Our dealings with the people of Nendo and officials in Honiara have so far been extremely encouraging and initial support for proposed exploration and subsequent mining operations in this region have been overwhelming. The Solomon Islands are ideally located close to Asian markets and potentially offer low-cost development of new discoveries,” Sebek added. The acquisition was subject to a satisfactory due diligence and the completion of initial exploration activities to ensure that Iron Mountain was satisfied that the Nendo project had the capacity to host a resource of at least eight-million tonnes of bauxite, at greater than 45% alumina and less than 5% total silica.

Glencore maintains New Caledonia stake

The Swiss-based mining conglomerate Glencore has confirmed its commitment to New Caledonia's Koniambo nickel plant. Radio New Zealand, March 30, 2016

The territory's public broadcaster says this follows talks between the French overseas minister, George Pau-Langevin, and the head of the conglomerate's nickel division. It reports that a deal has been struck for tax relief for a power plant at Koniambo while Glencore has assured that no decision about its future engagement will be made before December. Glencore has a 49-percent stake in the seven-billion US dollar Koniambo nickel plant which last year needed a furnace rebuild at a cost of about \$US 60 million. Late last year, Glencore warned of a possible pull-out, saying the company was not in the business of burning cash. The Koniambo plant is majority-owned by SMSP,

which belongs to the pro-independence northern province and is seen as a key element in efforts to re-balance the territory's economy dominated by the southern province.



The Koniambo Nickel plant in North Province, New Caledonia. Photo: AFP

Extractive industry report set for launch

The National, March 30th, 2016

PRIME Minister Peter O'Neill is expected to launch the country's first Extractive Industries Transparency Report today. PNG EITI (Extractive Industries Transparency Initiative) Secretariat head Lucas Alkan said the report contained how much had been paid by mineral and petroleum companies in 2013 to the Government and how much the Government received for that financial year. He said it was one of the requirements for the country as a candidate to the EITI Group of countries leading to it becoming a fully pledged member country. "PNG signed the international standard for promoting transparency and accountability in the oil, gas and mineral sectors known as the EITI in March 2014," Alkan said. He said the EITI was a global standard to promote open and accountable management of natural resources in the extractive sector.

"It seeks to strengthen company and government systems, informed public debate and enhance trust," he said. "In each implementing country this is supported by a coalition of governments, companies and civil societies working together. "PNG is one of the rich countries in terms of gold, copper, oil and gas and other minerals. "The expectation is that, if the revenues generated from the extraction of these natural resources are prudently managed and spent, it can improve and improve the living standard of the people. "However when these expectations fall short, it brings about issues of mismanagement and perception of corruption in the extractive industries." He said the question was how PNG addressed the issues of mismanagement and minimised the perception of corruption in the industries. He said EITI provided one platform where these can be addressed through publishing of a report.

Mt Kare landowners push for greater benefits

Post-Courier, March 30, 2016

BY PEARSON KOLO

THE Government must look at agendas brought up by landowners from mining projects in order to achieve greater benefits in the project. THE Chairman of Kewai Terewana clan Sheppard Tara of

Mt Kare said this while calling on Mining Minister Byron Chan to consider the landowners interest before deciding on a company to continue exploration in the area. On behalf of the other 18 clans of Mt Kare gold project, Mr Tara said the landowners would want to know what interests the companies applying to continue exploration have do not want to see different mining companies if it wants to achieve. "We the landowners will be meeting with the Mining advisory council when a company is chosen and we would like to know their interest in the project," Mr Tara said.

"We the landowners say this because many different mining companies have conducted exploration and the project is still in its exploration stages and we the landowners and now thinking that the different exploration companies are the ones that are benefiting with the landowners seeing now benefit at all." Mr Tara said they now know that the Mining Minister has shortlisted new companies to continue exploration in Mt Kare after Summit Development Limited's license expired last year. "We want the Mining Minister Byron Chan to come clear on the three companies and what they will be doing in Mt Kare to take the gold project into the next stage," Mr Tara stressed. "We the landowners of Mt Kare gold project want to see the project go into the next stage which is mining as exploration has been happening over the last 30 years after Mt Kare gold rush in the early 1980s." The landowner added that summit Development Limited made a great impact in their lives in terms of job opportunities and other benefits.

PNG PM, Opposition Leader Disagree Over LNG Revenue

Polye asks where \$4.1 billion are; O'Neill dispute figures used

PORT MORESBY, Papua New Guinea (PNG Post-Courier, March 30, 2016) – PNG Opposition Leader Don Polye yesterday questioned the Prime Minister on where the monies earned from the PNG LNG gas were being kept. In a series of Questions, Polye claimed that PNG sold 336,000 tons cubic feet (tcf) of gas in 2015 at a price of US\$12.40 per tcf. Polye calculated that therefore PNG made US\$4.1 billion, or K12 billion, last year from gas sales. He claimed that with a 19.5% stake in the PNG LNG project, PNG would have made K2.5 billion to K3 billion. Therefore PNG would have made between K5 billion to K6 billion in two years. He asked where this massive amount of money might be. "Mr Prime Minister, where is the people's money? The money earned from the PNG LNG sales which is rightfully theirs; where is it? Or what have you done with the massive K5 billion to K6 billion?," Mr Polye asked.

Prime Minister Peter O'Neill in response accused Mr Polye of attempting to mislead Parliament and the people of Papua New Guinea with questions which were not based on facts. Prime Minister O'Neill said Polye was using incorrect figures and assumptions to make very serious allegation against individuals and companies such as ExxonMobil, which observes the highest standard of accountability in the world. "Mr Polye was a very senior Minister in Cabinet when this project was signed in 2009. He is aware of the details of the project and its revenue forecast. "He is aware that Hides has a reserve of 10 TCF of gas which, based on export volume would make the project last about 30 years. So how PNG would have exported 336,000 TCF of gas in 2015 no one knows. Only he can explain.

"Mr Polye should be aware that this project cost US\$19 billion, and 70% of this money came from a syndicate of lenders (banks) which has to be repaid. "Under the agreement, the banks take 70% of the proceeds of sale. This will happen for 10 years or so until all obligations are met. "The balance is used to pay operational and other project costs before dividend is distributed according to equity. The PNG Government's dividend share is received by Kroton (NPCP). The tax revenue is collected by IRC and remitted to consolidated revenue at Treasury. "The price of gas is measured US\$ per million barrel British Thermal Unit, not TCF as Polye thinks. With oil price down around 60%, so is the gas price. So our revenue would be lower than what we would have liked. "That is why our

2016 Budget estimates are lower than 2015 levels, and cuts we have made are across the board. But as situation improves during the year, we will restore funding to some of these areas," he said.

Jury still out on whether seabed mining is good for Pacific

Radio New Zealand, 29 March 2016

The Pacific Community says it is still not clear whether the potential economic benefits of sea bed mining will outweigh the negative effects on the environment and on local livelihoods. The comments come after the SPC's proposed legal and regulatory framework on sea bed mining was accused of neglecting indigenous and environmental safeguards. Koroï Hawkins looks at some of the pros and cons of the industry. According to the company involved, in 2018 Papua New Guinea's Bismarck Sea is set to host the first ever commercial deep water mine operation. The director of the Pacific Community's [SPC's] geoscience division, Mike Petersen, says Nautilus Minerals' Solwara 1 project will set the tone for the future of the industry.

MIKE PETERSEN: They will be the pilot everyone will be looking at them not only the people we are talking about here, you'll have the NGO's who may not wish this development to happen but also industry will be looking at it, government will be looking at it, environmentalists will be looking at it the fishing industry and others will be looking at it so it is under a lot of scrutiny actually.

But an outspoken PNG opposition MP, Gary Juffa, who is the governor of Oro province, says the Solwara 1 project is being steam-rolled by the government without any consideration for relevant regulations or legislation.

GARY JUFFA: There is no legislation that would allow the government or the communities to have avenues by which they can review, monitor and take action if necessary or penalise etc, nothing at all. You know, here we are embarking on this project completely blind.

One regional NGO strongly opposed to the Solwara 1 project is the Pacific Network on Globalisation.

Its coordinator, Maureen Penjueli, says there are too many unknowns and seabed mining legislation in Pacific countries is either non-existent or insufficient.

MAUREEN PENJUELI: If you look at advanced jurisdictions like New Zealand and Australia it is very clear that when they apply the law in relation to sea bed mining it sets out very precisely. What it means for indigenous peoples what it means for environmental protection etc. So we believe very strongly that at this particular point in time in history the Pacific is not their yet to pursue seabed mining.

Mike Petersen says as a regional scientific body the SPC is neither pro- nor anti-seabed mining. But he says as to the viability of the industry studies indicate seabed mining could be a profitable undertaking for Pacific countries and he suggests it has a comparable industry in the offshore oil sector.

MIKE PETERSEN: In the 1970s underwater petroleum extraction was considered to be science fiction and something which humans would never make money from or maybe could never achieve. If petroleum the petroleum industry can succeed then why not the mineral industry given technological advances, advances in robotics and so on and so forth.

PNG's Gary Juffa however says in the blind push to get the project up and running the views of local indigenous peoples have been ignored.

GARY JUFFA: Are we to just sit back and despair and moan and groan and whine and there is the government no longer serving its people but serving corporate pirates. Is this the situation now that we must accept?. These are questions that people are asking, you know, the people of the Pacific. Other countries in the region interested in seabed mining are Tonga and the Cook Islands with the latter currently in direct talks with several companies after an open tender last year failed to get any bids.

New Caledonia Government Puts Off Decision On Nickel Exports

Exports to Japan to continue, decision on China delayed

WELLINGTON, New Zealand (Radio New Zealand International, March 29, 2016) – The New Caledonian government has approved continued nickel ore exports to Japan amid threats by truckers to block roads. The truckers had been pushing for exports to be increased to include China as the entire nickel sector is reeling from low commodity prices. However, public radio said a decision on whether to ship ore to China had been put off for a week. Earlier this month, the government of Philippe Germain admitted the context had changed and the government would re-examine demands to export low-grade ore to China. Last August, the truck drivers blocked key access roads around Noumea for weeks over the nickel export dispute.

Letter to the editor

Give our landowners more than just hotels

The National, March 29th, 2016

THE majestic hotel in Fiji owned by the Mineral Resources Development Company (MRDC) was spared the wrath of the recent cyclone. MRDC's hotel in Samoa is nothing less than spectacular while the Star Mountains Hotel being built Port Moresby is going to set the standard in luxury. MRDC has other well managed properties here and elsewhere that are giving solid returns. Over the years, MRDC has grown the wealth of resource owners to great heights. This must be the result of prudent investment choices, risk taking, and management. The board and management of MRDC deserve our praise and admiration for a job well done. I had never been to Kutubu until recently and had imagined I was going to see a well-developed place because the locals receive substantial royalties regularly. I wasn't prepared for what I saw and witnessed — so much poverty in the land of plenty.

The landowners live in squalor, their houses for the most part are of very poor standards, some of their schools and health clinics are largely abandoned by teachers and health workers who got tired of being despised because of their low pay compared to the royalties landowners receive. The standard of living of landowners isn't improving, and I am told, it is actually deteriorating- despite them receiving huge regular amounts of royalties. This is a clear case that shows that having money to live on is a basic necessity, but money alone can't improve people's welfare. It is its optimal use that makes the difference. And to use it properly, one must be financially literate. Royalties, it seems, are for buying beer, gambling, buying trade store food items because many have stopped gardening.

Landowners make frequent expensive travels to Port Moresby and elsewhere, they indulge in day long taxi rides, hotel accommodation, more alcohol, and the list goes on. And if you run out of money, don't worry, borrow. Never mind the interest rate on the loan. After all, you are a landowner. This is why some landowners are hopelessly trapped in a vicious circle of getting into new debts to repay old debts even on royalty paydays. MRDC board members are very well respected people who qualify to sit on many Boards worldwide. Unfortunately, it seems that they are "big people" with one "big flaw". They are too big to care for the welfare of the people whose money they manage. They see the "big picture" when investing in assets outside of the resource locations. However, the "big picture" of how to help the "little" individual landowners' to properly manage their royalty receipts has escaped their attention. This is very sad.

Please, MRDC Board; teach these people how to use their money efficiently and effectively so that they can improve their standard of living. Teach them to become better managers of their finances

by learning how to live within their financial means. Teach them to embrace a savings culture so as to increase their economic security and wellbeing. Show them that there is a future beyond drinking, gambling, and reckless spending. The MRDC board cannot continue to be insensitive to the plight of landowners. MRDC's financial management success outside the resource areas is meaningless if it is not reflected in changes to the lifestyle of landowners. Educating landowners is part of MRDC's fiscal and community responsibility. For a minimal investment in landowner financial education, landowners and their children will learn what will benefit them and their future generations. Elling, Via email

Fight at LNG site

Post-Courier, March 29, 2016

By ANDREW ALPHONSE

A COUNCILLOR was brutally gunned down to death as tribal warfare erupts near Kobalu forward base camp of the US\$20 billion PNG LNG project site in Tari, Hela province. Two other youths have also been shot dead in the fight that started on Easter Thursday and continued over the Easter weekend. Hela provincial police commander Supt Michael Welly told the *Post Courier* in Mt Hagen yesterday that there were tribal fights everywhere in Hela thus making police job even more exhaustive and challenging. Supt Welly said the councilor identified as Talibe Tayanda of Telabo ward 2 in Hayapuga local level government (LLG) area of Tari Pori district was murdered by three suspects last Wednesday at Pai-Kela village near Kobalu. Supt Welly said the attackers fled after gunning him down while in retaliation, angry relatives went on rampage and burnt down 15 houses near the Kobalu LNG camp. Kobalu camp is located on the road between Tari and Hides gas field project areas.

Supt Welly said the motive of the councilor's killing could not be established but police believe it may be related to outstanding tribal disputes. Supt Welly said two other young men were also killed in the attack and tension is building up between the warring factions. Supt Welly said he has established communication with LNG project operator ExxonMobil (PNG) Ltd and developer Oil Search Limited (OSL) to deploy some of his policemen to be accommodated at the Kobalu camp as of today (Tuesday) to prevent further fighting and also to protect the lucrative hydro carbon projects in the area. Supt Welly said he would lead policemen to Kobalu there today (Tuesday) to demand the people to have the suspects involved in the murder of the councilor and the two youths surrendered to police. Supt Welly said only when these perpetrators are arrested and behind bars, both sides would not take up arms and cause more destruction and prevent the loss of lives. Apart from the Kobalu fight, Hela generally witnessed a peaceful Easter weekend with the International Women's Day celebrations last Thursday in Tari too.

New Caledonia Truckers Again Press For Nickel Exports

Blockades threatened if more exports aren't approved

WELLINGTON, New Zealand (Radio New Zealand International, March 29, 2016) – The New Caledonian government has been put under pressure by truck drivers who want the territory to export nickel ore to China. They have issued an ultimatum to the administration of president Philippe Germain to use its sitting on Tuesday to authorise more exports or face fresh blockades. The threat comes after a sharp drop in the price of nickel triggered huge industry-wide losses and damaged exports markets, including Australia. Earlier this month, Mr Germain admitted the context had changed and the government would re-examine demands to export low-grade ore to China after earlier opposing exports to shore up the price. And two weeks ago, the government said it would disburse US\$5.5 million of a special Nickel Fund this year to help exporters and contractors. They say

however that they don't want money but work for their trucks. In August, the truck drivers blocked key access roads around Noumea for weeks over the nickel export dispute.

Survey: Need to protect natural resources

Serafina Silaitoga, The Fiji Times Online, March 28, 2016

VILLAGERS of Wainunu have expressed through a survey the need to protect their natural resources. The survey, "Wainunu Scoping Report", conducted by the Bua Urban Young Professionals Network in October last year, indicated that 100 per cent of participants from six villages felt the need to protect their natural resources. A comment that came out strongly from villagers during the survey was that they had survived for centuries without mining and they did not see a need to begin now. The survey stated those who wanted to protect the resources gave their reasons as "...for the sake of the future generation".

"In addition, they shared that villages situated in the highlands were concerned about the impacts on coastal villages because they were all family and would not want to add to existing challenges," the survey stated. "They even shared that they had witnessed the impact of bauxite mining in Nawailevu and do not want that to happen in Wainunu. "In all villages, 50 per cent of respondents showed they had an understanding of the ecosystem value of resources." In addition, 95 per cent of those interviewed could not put a monetary value to their natural resources labeling it as too precious to have a dollar value. The survey was conducted in Coga, Daria, Nadua, Nakawakawa and Navakasali villages.

Mining Science

CBC Radio, 24 March 2016



Children playing in tailings downstream from the Ok Tedi Mine in Papua New Guinea, 2009. (Brent Stirton/Getty Images)

Listen to Full Episode:

<http://www.cbc.ca/radio/popup/audio/listen.html?autoPlay=true&clipIds=&mediaIds=2685878282&contentarea=radio&subsection1=radio1&subsection2=currentaffairs&subsection3=ideas&contenttype=audio&title=2016/03/24/1.3502958-mining-science&contentid=1.3502958>

Cultural Anthropologist Stuart Kirsch spent decades working with native peoples living along the Ok Tedi River, in Papua New Guinea, trying to oppose the social and environmental threats posed by an enormous open-pit copper mine situated near the river's source. He tells Paul Kennedy about what they learned in the process of taking on a multi-national mining giant; and what the people of

PNG taught him.

"How is it possible that despite spending tens of millions of dollars on environmental research and monitoring, the consultants and other scientists employed by the Ok Tedi mine failed to predict the impending environmental catastrophe, or even to accurately report on it while it was occurring? Their failure calls into question the way science is deployed by mining companies, and by extension, how corporations strategically exploit science."

The Ok Tedi copper mine in Papua New Guinea is at the centre of one of the worst environmental disasters in the world. Tailings from the mine have polluted the Ok Tedi River, and devastated a huge area of previously pristine and virgin jungle. People in the tribes who live along that river will never be the same. Their home was once a rich verdant paradise. It now looks more like the surface of the moon. In a recent lecture at Memorial University of Newfoundland, anthropologist Stuart Kirsch discussed the questionable science that the mining industry uses to justify their destructive activities.

Frieda's feasibility study on track: Hess

The National, March 24th, 2016

A FEASIBILITY study on the Frieda River gold-copper project in West Sepik is on track, according to lead explorer PanAust. Managing director Dr Fred Hess said the company's primary focus was the Frieda River copper-gold project with the report to be submitted in the first half of 2016. In the company's report for the three months to December 31 last year, Hess said it was a mega project for the company which would boost the national economy. "The company continued to advance the Frieda River feasibility study including undertaking geotechnical analysis and engineering studies relating to mining, ore processing, waste rock and tailings storage, logistics and power," he said.

Hess said the feasibility study programme was structured around a stage-gate decision process that incorporated the findings from the technical and economic programmes. "The study is on track for submission to the Government in the first half of 2016, initiating the process for regulatory approvals," he said. "Work commenced on an exploration access track which will improve access to the main camp site from the Frieda River airstrip. "Ongoing positive engagement with the Government, provincial administrations in Sandaun and East Sepik and host communities continued to support the project." PanAust holds an 80 per cent interest in the Frieda River project, with Highlands Pacific holding the remaining 20 per cent.

Nautilus makes good progress: CEO

Post-Courier, March 24, 2016

SIGNIFICANT gains were made by Canadian Miner Nautilus Minerals in 2015 mainly in its technical preparations for the world's first deep sea mine. The consolidation has enabled it to meet its first production target to commence in 2018. Nautilus' chief executive officer, Mike Johnston, hailed the progress as "a milestone year for Nautilus." "By year end, work on the seafloor production equipment had significantly progressed, while we had also recommenced targeted exploration on our tenements in the Solomon Islands and the Clarion Clipperton Zone (CCZ), as we build a pipeline of resources. "There is a real sense of momentum building as we work towards commencing seafloor operations at the Solwara 1 project site in Quarter One in 2018." The miner says it had in 2015:

- Advanced the Solwara 1 project (seafloor production tools (SPTs) assembled and commenced factory acceptance testing (FAT));
- Advanced production support vessel construction (all major long lead time orders placed, design underway, steel cutting commenced and block fabrication started);
- Conducted targeted exploration programs in the Solomon Islands and CCZ;
- Released Earth Economics' independent Environmental and Social Benchmarking Analysis. The report had concluded that seafloor mining can significantly reduce the social and environmental impacts of copper mining;
- Signed a new offtake agreement for Solwara 1 with Tongling Nonferrous Metals Group Co. Limited (Tongling), with improved payment terms and lower operating costs;
- The State nominee elected not to exercise its option to take up an additional 15 per cent equity;
- US\$56.5 million in cash and cash equivalents as at December 31, 2015

As a result of these achievements it had:

- Awarded contract for equipment storage and wet testing of the SPTs;
- Seen its SPTs arrive safely at Duqm Port in Oman
- Completed assembly of the subsea slurry and lift pump and commenced FAT and announced rights offering to raise C\$103m.

Pacific Community Defends Seabed Law Review

Document 'just a starting point'

WELLINGTON, New Zealand (Radio New Zealand International, March 23, 2016) – The Director of Geoscience at the Pacific Community has fended off criticism of the organisation's framework for seabed mining legislation, saying the document is just a starting point. The NGO, Pacific Network on Globalisation, carried out an assessment of the framework with Blue Ocean Law and said it lacked indigenous and environmental safeguards. But the SPC's Michael Petersen said the authors could have consulted the SPC and found the framework, which was first published in 2012, was currently being overhauled. "For a 57 page document personally I think we do cover some of the areas which the criticism is alleging that we don't cover. We probably can improve, of course we can. But I think it is unfair to say that we haven't at least given this significant treatment in the document itself." Michael Petersen said there were some valid points raised in the review but it was mostly too harsh on the framework, which was designed as a starting point and not a benchmark for seabed mining legislation in the region.

Meeresbergbau: Raubbau in der Tiefsee

Am Meeresgrund liefert sich Deutschland mit Russland und China einen Wettlauf um die wertvollsten Ressourcen. Ein Forschungsprojekt zeigt: Der Mensch kann in der Tiefsee ungeahnte Schäden anrichten. Von Christopher Schrader, Süddeutsche Zeitung, 23. März 2016

Im Sommer 2015 brach das deutsche Forschungsschiff *Sonne* von Ecuador nach Westen auf, in Richtung auf das offene Meer. Ziel war ein Fleck im Pazifik: 7 Grad 4 Minuten Süd, 88 Grad 28 Minuten West, weit und breit nichts als Wasser. Was diese Stelle im sogenannten Peru-Becken auszeichnet, lag vier Kilometer unter dem Kiel in der Tiefe: ein Areal von zehn Quadratkilometern Meeresboden, das deutsche Forscher 1989 umgepflügt hatten. Das bis heute einzigartige Projekt namens "Discol" sollte untersuchen, was Tiefseebergbau in der fragilen Lebensgemeinschaft dort unten anrichten könnte.



Mysteriöse Tiefsee: ein Viperfisch, fotografiert im Pazifik in einer Tiefe von über 1000 Metern (Foto: AFP)

Als die Forscher am 30. Juli 2015 mit der *Sonne* ankamen, hatte seit einer letzten Kontrolle 20 Jahre zuvor kein Mensch mehr die Pflugspuren angesehen. Im vergangenen Jahr tauchten Roboter in die Tiefe, kartierten den vernarbten Boden, erhellten die Dunkelheit mit Scheinwerfern, nahmen Proben und schickten Filme nach oben. "Eigentlich sah es noch genauso aus wie 1996", erzählt Gerd Schriever von der Firma Biolab, der damals wissenschaftlicher Leiter mehrerer Expeditionen war und diesmal als Berater mitfuhr. "Damals hatte die Wiederbesiedlung erst begonnen, und viel ist seither auf den ersten Blick nicht passiert. Die Spuren des Pfluges waren so gut zu erkennen wie zuvor."



Roter Tintenfisch, gesichtet vor Australien (Foto: AFP)

Das 1989 umgegrabene Sediment ist immer noch viel heller als der Untergrund

Auch Antje Boetius kannte die Pflugspuren in der Tiefe schon. Die Meeresbiologin hatte auf einer früheren Fahrt ins Peru-Becken Daten für ihre Diplomarbeit gesammelt. Heute ist sie Professorin und teilt ihre Zeit zwischen dem Alfred-Wegener-Institut in Bremerhaven und dem Max-Planck-Institut für marine Mikrobiologie in Bremen auf. Sie hat eine von zwei Expeditionen der *Sonne* zum Peru-Becken im vergangenen Sommer geleitet - und staunte: "Wo damals der Boden aufgekratzt wurde, sind manche Arten auch nach 26 Jahren nicht zurückgekehrt. Nicht einmal Bakterien haben

die Pflugspuren wieder vollständig besiedelt." Meeresboden in 4150 Meter Tiefe ist schließlich ein nährstoffarmer, kalter und finsterner Lebensraum unter enormen Druck. Und noch etwas fiel Boetius auf: Noch immer könne man das helle Sediment erkennen, das der Pflug aus 20 Zentimeter Tiefe emporgeschaufelt und auf die dunklere Oberfläche geworfen hatte. "Warum ist das eigentlich noch nicht nachgedunkelt?", fragt sie.

Es gibt viele solche unbeantworteten Fragen über die Tiefsee, und bei der Suche nach Antworten stehen die Wissenschaftler in einem Wettlauf mit der Industrie. Tiefseebergbau gilt für rohstoffarme Industrieländer wie Japan, Südkorea und auch Deutschland als ein Weg, sich beispielsweise von Metallimporten weniger abhängig zu machen. Die Südseestaaten Tonga und Nauru sehen darin die Route zum Wohlstand. Angesichts der gestiegenen Marktpreise erkunden aber auch Nationen wie China und Russland, die heute mit Rohstoffexporten viel Geld verdienen, die Bodenschätze am Meeresgrund.

Besonders Manganknollen faszinieren die Experten. Die kartoffelgroßen Metallknubbel enthalten neben dem in der Stahlindustrie begehrten Mangan, von dem es auch an Land viel gibt, Kupfer, Kobalt und Nickel sowie Spuren von selteneren Elementen wie Tellur oder Molybdän. Unmengen der Knollen liegen zum Beispiel auf dem vier bis fünf Kilometer tiefen Meeresboden der sogenannten Clarion-Clipperton-Zone (CCZ), die sich im Pazifik von Mexiko aus Tausende Kilometer nach Westen erstreckt. Die Internationale Meeresbodenbehörde ISA in Kingston auf Jamaika hat dort 13 Erkundungslizenzen an verschiedene Nationen und Konsortien vergeben.

Für Deutschland hat sich die Bundesanstalt für Geowissenschaften und Rohstoffe (BGR) in Hannover einen Claim von insgesamt 75 000 Quadratkilometern gesichert, das ist mehr als die Fläche Bayerns. Dass in den kommenden fünf Jahren die industrielle Förderung von Manganknollen beginnt, hält man zwar bei der BGR derzeit für ausgeschlossen. Aber ernst wird der Meeresbergbau durchaus genommen: Es gibt Pläne für einen riesigen Kollektor, der die Knollen vom Meeresboden erntet. Das Wirtschaftsministerium lässt prüfen, was ein Pilotversuch kosten würde. Und die Ende 2014 in Dienst genommene Sonne hat 2015 volle fünf Monate mit der Erkundung von Manganknollen verbracht: Von Mitte März bis Mitte Juni war das Schiff in der CCZ, August und September im Peru-Becken. Es geht um viel Geld, der geschätzte Wert des Metalls allein in den beiden wirtschaftlich interessantesten Teilen des deutschen Lizenzgebiets liegt nach heutigen Weltmarktpreisen bei mindestens neun Milliarden Dollar.

Um das mögliche deutsche Tiefsee-Bergwerk vor Mexiko zu erkunden, war Carsten Rühlemann von der BGR seit 2008 siebenmal dort; im April geht es wieder los. "Wir möchten ein Teilstück für einen Test auswählen, mit dem man die Umweltfolgen des Abbaus abschätzen kann. Und es so detailliert erkunden, dass ein künftiger Tiefseebergbau dort beginnen könnte", sagt er. Dazu sammeln die Forscher neben Manganknollen auch Daten über all die Wesen, die im oder auf dem Boden leben. Spuren menschlicher Eingriffe gibt es auch in der CCZ bereits. 1978 hatte eine US-Firma mit einer Art Baggerschaufel Streifen in den Meeresboden gezogen. Mit vier Zentimetern Sediment hatte das Gerät auch die Manganknollen eingesammelt. 2004 haben Wissenschaftler an der Stelle zum Beispiel Fadenwürmer untersucht: Wo die Schaufel gegraben hatte, gab es 26 Jahre später deutlich weniger Würmer und deutlich weniger Artenvielfalt.

Neben Plastiktüten und Coladosen fand sich ein Tiefsee-Tintenfisch, der jahrelang Eier ausbrütet

Das deutsche Discol-Projekt von 1989 war jedoch das größte derartige Experiment, und das einzige außerhalb der CCZ. Damals hatten die Forscher einen acht Meter breiten Pflug kreuz und quer umhergezogen und etwa ein Fünftel des Untergrunds umgegraben. Die Manganknollen blieben zwar im Boden, wurden aber verschoben oder verschüttet, und die aufgewirbelten Sedimente senkten sich auf unberührte Flächen. "Bei einer vollständigen Simulation des Abbaus würden die Knollen

entfernt und hinterher der Abfall, metallische Schlämme, wieder eingeleitet - auf riesigen Flächen", sagt Antje Boetius. Das ist auch deshalb problematisch, weil auf den Knollen viele Lebewesen den einzigen sicheren Halt finden. Werden die Metallbatzen aus dem Sediment gezogen, haftet an ihnen ähnlich viel Untergrund wie am Wurzelballen einer Gartenpflanze.



Als die Wissenschaftler von der *Sonne* aus jetzt im Peru-Becken nachschauten, fielen ihnen neben Plastiktüten, einigen alten Bierflaschen und Coladosen die großen kriechenden oder schwimmenden Tiere auf. Diesen war die Rückkehr noch am leichtesten gefallen. Viele sind trotz der Dunkelheit, in der sie leben, sehr bunt: orange Seeanemonen, Seesterne in Pink, Seegurken grün und stachelig, violett und glatt oder schneeweiß mit Tentakeln. Auch einen kalkweißen Tintenfisch fanden die Forscher. Die Art klebt ihre daumennagelgroßen Eier an die Stiele von Seelilien und schlingt den Körper um das Gelege. "Vier bis sechs Jahre brüten sie, und wenn die Jungen schlüpfen, stirbt das Elterntier", sagt Boetius. Viel mehr weiß man noch nicht über diese Spezies.

Klar ist immerhin, dass sie die Seelilien zur Fortpflanzung braucht und diese nur auf Manganknollen Halt finden. Wer also die Metallknubbel wegräumt, nimmt auch den rätselhaften Tintenfischen den Lebensraum. Zwar sieht die Meeresbodenbehörde ISA vor, dass neben jeder künftigen Mine unberührte Areale bleiben, aus denen das Leben in die zerfrästen Gebiete zurückkehren kann. Doch wie lange das dauert und ob es überhaupt gelingt, weiß noch niemand. "Wir können ja noch nicht einmal genau definieren, welche Funktionen der Meeresboden wieder erfüllen muss, damit wir von einer Heilung sprechen können", sagt Boetius.

Vorhersagen über die Umweltfolgen von Bergbau in der CCZ werden auch dadurch erschwert, dass der Untergrund dort anders ist als im Peru-Becken. "In unserem Lizenzgebiet", sagt Carsten Rühlemann, "ist der Boden bis in einige Meter Tiefe von Sauerstoff durchdrungen." Im Peru-Becken reiche der Sauerstoff nur zehn Zentimeter tief. Würde der Boden dort aufgewirbelt, gelangten vermutlich gelöste Metalle ins Bodenwasser; diese Gefahr drohe in der CCZ eher nicht. Allerdings sehen die Bergbaupläne vor, die Manganknollen in der Tiefe zu zerkleinern und die Bruchstücke an die Oberfläche zu pumpen. Der Knollenstaub in dem Wasser, das dann zurück in die Tiefe geleitet wird, könnte wegen der Metalle auch dort zur Gefahr für Lebewesen werden. Um solche Effekte zu studieren, haben Mitglieder von Boetius' Expedition Seegurken mit dem Roboter in Käfige gesetzt und mit Metallschlamm berieselt. Die Seegurken versuchten zu fliehen.

"Nach dem, was wir bislang wissen, halte ich einen Tiefseebergbau durchaus für vertretbar", sagt Carsten Rühlemann. "Es wird aber vermutlich eine öffentliche Debatte darüber geben müssen, wenn die Ergebnisse der Umweltstudien vorliegen." Eigentlich hat diese längst begonnen: Die Organisation Brot für die Welt lehnt Tiefseebergbau ab, die Umweltgruppe WWF betont die Risiken, der Bundesverband der Industrie hingegen die Chancen. Im Sommer 2015 forderten US-Forscher

im Magazin *Science*, die weitgehend unbekannte Tiefsee schleunigst ausreichend vor kommerzieller Nutzung zu schützen. Antje Boetius teilt die Forderung. "Wir könnten doch die Investitionen umleiten und zuerst das Recycling der Metalle an Land deutlich verbessern", schlägt sie vor. "Damit gewinnen wir ein paar Jahrzehnte Zeit, um die Lebensgemeinschaften der Tiefsee besser zu verstehen und Schutzkonzepte zu entwickeln." Vielleicht zeigen sich bis dahin auch in dem 1989 umgepflügten Versuchsfeld Erholungseffekte.

URL: <http://www.sueddeutsche.de/wissen/umweltschutz-narben-am-grund-1.2918500>

Nautilus: Seafloor Production Tools safely delivered in Oman

Post-Courier, March 23, 2016

THE three seafloor production tools to be used to mine Solwara One in New Ireland have arrived safely at Duqm Port in Oman for further extensive testing. Canadian miner Nautilus, on behalf of the Solwara 1 joint venture (comprising Nautilus 85% and Eda Kopa (Solwara) Limited 15%, a subsidiary of Petromin Holdings PNG) announced that the three SPTs are scheduled to undergo extensive wettesting there. The testing is one of the next major steps in the progression towards seafloor production, and will involve submerged testing of:

- Control systems operations and feedback;
- Hydraulic functions;
- Collection system functions; and
- Survey and visualization systems.

The wet testing program is being undertaken by the Solwara 1 JV production team and representatives of Soil Machine Dynamics, with further logistics and engineering support from United Engineering Services Ltd. The preparatory works for the program will commence in April with initial testing operations scheduled to occur shortly thereafter. The SPTs were designed and assembled in Newcastle upon Tyne by Soil Machine Dynamics, and the company ultimately plans to use the SPTs to cut and extract high grade copper and gold from the seafloor at the Solwara 1 JV's project site in the Bismarck Sea. Initial seafloor production operations are planned to commence at the Solwara 1 project site in Q1 2018. Nautilus' CEO, Mike Johnston said: "The Solwara 1 JV partners are delighted that the SPTs have made it safely to Duqm Port. We look forward to commencing our wet testing program with the support of UES and Soil Machine Dynamics (UK), and I look forward to reporting the results to our shareholders and the market in general."

Axiom Mining's nickel license revoked by Solomon Islands' court

TOKYO, Teuters, March 22, 2016

The development of a large nickel deposit in the Solomon Islands is back to square one this week, as the nation's highest court ruled that neither of the two firms in Japan and Australia fighting over the discovery were entitled to the license. The Solomon Islands Court of Appeal on Monday rejected a portion of Sumitomo Metal Mining's appeal that the country's [government](#) should not have cancelled in 2011 Sumitomo's license to develop the Isabel nickel laterite discovery. In the same ruling, the Court of Appeal accepted another portion of the appeal by revoking Axiom Mining's current license for the Isabel site. The ruling also returns the site of the Isabel discovery to government ownership without restoring Sumitomo's earlier license. Japanese mining giant Sumitomo and tiny Australian explorer Axiom Mining have been fighting over the Isabel discovery since 2011.

Sumitomo won an [international](#) tender for prospecting licences in 2010. The licences were cancelled in 2011 and similar rights were later that year awarded to Axiom. Sumitomo in 2013 sued the

Solomon Islands Government and Axiom, claiming that the government wrongly cancelled Sumitomo's rights and wrongly granted similar rights to Axiom, even though Axiom did not take part in the 2010 international tender. The High Court of the Solomon Islands in 2014 rejected all of Sumitomo's claims, and Sumitomo filed an appeal to the nation's Court of Appeals, the country's court of final appeal. Analysts estimate the Isabel discovery compares in size or grade to other large South Pacific nickel mines, such as Vale SA's Goro mine in New Caledonia and the China-owned Ramu mine in Papua New Guinea.

"We will look closely into the court's decisions and think about what steps we would take next," a spokesman for Sumitomo Metal Mining said, adding that [the company](#) had no information on whether the Solomon government will conduct a new tender. Sumitomo Metal's shares were up 1.4 percent against the 1.9 percent rise in benchmark Nikkei average. Axiom halted [trading](#) in their shares on Monday, according to a release to the Australia Stock Exchange, without giving a reason for the halt. Axiom officials were not available for immediate comment on the decision. (Reporting by Osamu Tsukimori and Yuka Obayashi in TOKYO and James Regan in SYDNEY; Editing by Christian Schmollinger)

Solomons Nickel Prospector Confident Despite Court Ruling

Court dissolved company's prospecting licence

WELLINGTON, New Zealand (Radio New Zealand International, March 23, 2016) – Australian miner Axiom KB is confident of recovering the rights to mine nickel deposits in Solomon Islands after a court ruling dissolved the company's prospecting licence. The appeal court ruling, delivered yesterday in Honiara, quashed the process by which the Takata (Kolosori) customary land was originally registered, returning it to its original customary land status and rendering null and void the freehold lease and licence which Axiom had over the property. Axiom chief executive Ryan Mount however said the ruling also negatively impacted the first respondent Sumitomo Metal Mining Solomon Islands Ltd.

He said it effectively quashed that company's original international tender on the basis that it already has three existing prospecting licences - the maximum allowed in the Solomons. Mr Mount said this had put his company on the front foot to re-engage in the project and an application for a new prospecting licence was already underway. "Obviously this will set us back a few months at the least. At the moment, however, we feel relatively comfortable considering the support especially just recently we are receiving from the community on Isabel and from the initial comments from our interaction with government that we will be reapplying and that we will be successful in doing so," said Ryan Mount.

Gold firm awaits nod from Government

Post-Courier, March 22, 2016

BY JEFFREY ELAPA

GOLD Mountain Exploration chief executive officer (CEO) Matt Morgan says the company will begin exploration on Keman gold project, in Enga Province, as soon as it is given the nod by Government. Mr Morgan said this would be a challenge but that it would be working to ensure that this investment will be of mutual benefit to all including the landowners, the company as well as the Government. He was responding to concerns raised during a warden hearing which was held in the Wali-Talua LLG in Kompiam District recently. "As soon as the tenement application by the company for the ELA 2426 is granted by the Government through the Ministry of Mining, the exploration for both EL 1966 and ELA 2426 will get off the ground," the CEO said. Meanwhile, the first

warden hearing held in October 7, 2015 and this was the second to be headed by Mineral Resources Authority (MRA) officer, Iso Sando. Also present were landowners and community leaders including councilors and public servants from the area.

Deputy Chairman of Keman Village Court Manos Poko who is also a landowners had said the people of Keman and the entire Wali-Talua LLG had been waiting for Gold Mountain to come and do actual exploration. He said the people believed that the project is an intervention for them after missing out on basic services such as road infrastructure for decades. Women representatives have also expressed the lack of health services that has affected their health and that is likely to be addressed with the development. Women speakers Grace Mathias and Josepha Was a good road network reaching their communities will be a great relief for the women and children who have been carry heavy things like building materials glass, cement bags, roofing iron, and plywood. The exploration company would be a light at the end of the tunnel for services to flow.

Porgera mine suspends operations

Post-Courier, March 22, 2016

BY JEFFREY ELAPA

BARRICK Niugini Limited, the operator of the world-class Porgera Gold has suspended some of its operations after the landslide that occurred on Friday, a few kilometres outside the mine site. Barrick Niugini Limited executive director Greg Walker said in a statement the landslide in the Porgera district has affected the Highlands Highway, blocking road access to the mine that occurred about noon last Friday, in a community area about 2km from Porgera mine. A number of similar landslips have occurred along parts of the Highlands Highway in recent weeks as a result of heavy seasonal rainfall. "At present there have been no reports of injuries in the affected community, for which we are all thankful, however, several homes and buildings belonging to that community have been significantly damaged, and there is always a risk of further earth movement," Mr Walker said.

"Given the restricted road access, we have shut down non-essential activities at the mine, and are working closely with local and provincial authorities to help secure the area, and make geotechnical assessments regarding any risk of further land movements. "General mining operations have been suspended temporarily, and mine employees who are not directly involved in essential operations have been advised to stand down until the Highway is cleared, and ground access to the mine is re-established." Relevant authorities, including the provincial and national governments, the National Disaster Management Office and the Police Commissioner have been alerted to the landslide. "The immediate priority at present is to ensure the safety and well-being of those impacted by this slide," Mr Walker said, noting that the mine was standing ready to provide humanitarian assistance to those affected.

Mining Company Wins Appeal In Solomons' Nickel Case

Gov can now work with a mining company for development

WELLINGTON, New Zealand (Radio New Zealand International, March 21, 2016) – The mining company, Sumitomo Solomon Ltd, has won most of its appeal against Australia's Axiom Mining over the rights to mine nickel deposits in Isabel Province in Solomon Islands. The Solomons government said it welcomes the resolution of one of the longest and most costly legal battles in the country's history. SMM Solomon Ltd is a subsidiary of Japan's giant Sumitomo Metal Mining. The government said the Court of Appeal decision effectively dashes any hopes of Axiom mining the ore on Takata and San Jorge Island in Isabel. The prime minister, Manasseh Sogavare, said the government is looking forward to working with the relevant stakeholders to ensure the development

benefits every stakeholder. He said with the legal battle out of the way the Department of Mines can now start the process of ensuring a reputable mining company develops the nickel source.

Report Finds Pacific Deep Sea Mining Framework Lacking

Needs more indigenous and environmental safeguards

WELLINGTON, New Zealand (Radio New Zealand International, March 21, 2016) – An independent assessment of a proposed framework for sea bed mining has found it lacks indigenous and environmental safeguards. The Pacific Community's legislative and regulatory framework for deep sea minerals exploration and exploitation is supposed to be the standard for Pacific countries to aspire to when drafting their own laws. But Blue Ocean Law's Julian Augon said the document only pays lip service to the protection of indigenous peoples and the environment. He said from an international law perspective it leaves a lot to be desired. "So what is really necessary now is that because this document does purport to be a model framework that it actually lives up to its task and it becomes a model framework and actually better incorporates free prior and informed consent as a international legal norm." Julian Augon said Blue Ocean Law, in collaboration with the Pacific Network on Globalisation, wants to meet with the Pacific Community to discuss the findings.

Oversight liabilities

Monika Singh, The Fiji Times Online, March 19, 2016

THE oversights in the SPC-EU funded Regional Legislative and Regulatory Framework for Deep Sea Minerals (DSM) Exploration and Exploitation could expose individual countries to liability including compensation claims under established international law for harms resulting from DSM that take place from activities under their control, both within and beyond domestic waters. Pacific Network on Globalisation (PANG) co-ordinator Maureen Penjueli said while they appreciated the attempt to provide a model legal framework for the Pacific region, they urged SPC to supplement the framework with comprehensive provisions that properly enshrine both free, prior and informed consent. Ms Penjueli says the assessment of the framework should act as signposts for Fiji and other Pacific Islands in terms of safeguarding the human rights and environmental protection of their land. She says Fiji is reviewing its legislation on the issue which was a positive move.

"The Pacific Network on Globalisation and our collective partners — Pacific Conference of Churches, DAWN (Development Alternatives for Women in a New Era), BRG (Bismark Ramu Group), Act Now! PNG — have been closely following the issue of seabed mining in the region since 2010, which coincided with the SPC-EU funded project looking at seabed mining in the region. "At that time we were gravely concerned by the lack of scientific knowledge particularly around potential and or actual impacts of seabed mining from an environmental, social, and cultural perspective. "There was also a significant lack of knowledge about the technology and its potential impact. "This is an industry that has never been tried, tested anywhere in the world. The Pacific is ground zero, a testing ground, new frontier. "We were concerned that there was an overt emphasis on the purported benefits of seabed mining which was purely an economic benefit, including jobs for island nations. "In our view at that time it was very clear that there was insufficient information for informed policy-making at the regional level and national level.

"We knew that international law (environmental law precautionary principle, human rights law particularly around indigenous rights) offered clear best practice that the region could seek to incorporate in such a situation." "The launch of the SPC-EU funded Regional Legislative Framework for DSM Exploration and Exploitation in 2012, in our view, sent a clear signal to the world that the Pacific was ready for seabed mining. We saw a correlation between the launch of the SPC-EU funded

framework and a race to divide up the last remaining territory — ocean floor." She said a significant number of exploration and exploitation licences were issued across the Pacific and by 2014, a total of 4,323,000 square kilometres of ocean floor were under contract between mining companies and island nations. Many Pacific Island governments rushed to enact legislation and policies after many had already issued exploration and exploitation licences, creating a sense of inevitability that seabed mining is going to take place in the Pacific Ocean. "Any opposition to, or attempts to caution, resist or halt was considered unrealistic, anti-development, anti-progress which is simply not true.

"We had over 30,000 signatures to present to leaders to call for a moratorium on seabed mining in 2012 the Cook Islands," Ms Penjueli said. "Indigenous communities who are at the forefront particularly in PNG were already opposed to seabed mining. This created an environment in which the burden of proof shifted from transnational mining companies to indigenous communities, civil society organisations to prove the need for caution and prudence. "In this regard we sought the technical expertise — legal, scientific, social, cultural even the artistic community to respond to this; which brings us to the collaboration between Blue Ocean Law and the Pacific Network on Globalisation. "It is a recognition of the significance of the SPC framework to establish a comprehensive framework for deep sea mining, which governments can consider and adopt through corresponding implementing legislation." Ms Penjueli said the culmination of their collaboration was the analysis of the SPC-EU funded framework, which was launched to the public to be part of their tool kits in responding to the issue of seabed mining in the region. Blue Ocean Law will elaborate on the specific omissions in the framework and recommendations on how to bring it into full compliance with international environmental and indigenous safeguards.

Third LNG train expected, says minister

The National, March 18th, 2016

THE Government will make a major statement on a third liquefied natural gas train and the Papua LNG project, says Petroleum and Energy Minister Ben Micah. Micah said this would be a confidence booster for the country despite the low prices on the world market and a glut of supply. "I will be making, after consultation with the prime minister, a major announcement on the PNG LNG project third train and the Papua LNG project," he told The National. "In spite of all these things, we are going to pull off these projects." Micah said buyers, investors and financiers were ready for the projects. "We will be announcing a final investment decision (for Papua LNG Project) next year, and we will be ready to deliver gas when business is coming back," he said. "Prices are expected to leap to US\$50-60 per barrel." Micah said the current low prices and glut on the world market was no excuse for PNG to be complacent. He said PNG would soon have five LNG trains in the next three years – three for the PNG LNG project and two for the Papua LNG project. "We'll be delivering LNG cargo (from Papua) by the time the market evens out and prices will stabilise," Micah said. "We are not going to sit around and wait for the prices to go up. We are going to deliver another three trains of gas."

Legal analysis calls for greater safeguards in SPC framework for experimental seabed mining

PNG Mine Watch, March 18, 2016

International law firm Blue Ocean Law (BOL), together with Fiji-based regional non-governmental organisation, Pacific Network on Globalisation (PANG), have released "*An Assessment of the SPC Regional Legislative and Regulatory Framework (RLRF) for Deep Sea Minerals Exploration and Exploitation.*" The report is an independent analysis of the RLRf, the legal framework produced by the Secretariat of the Pacific Community (SPC), funded by the European Union (EU). "Our assessment analyzes the RLRf from an international law perspective, focusing on problematic aspects of

the SPC-EU framework,” says Attorney Julian Aguon of BOL. The framework, says Aguon, is striking in its omission of any serious discussion of the right of indigenous peoples to free, prior, and informed consent (FPIC), inasmuch as large-scale development activities such as experimental deep sea mining trigger protections under international law.



The SPC framework is striking in its omission of any serious discussion of the right of indigenous peoples says international law firm BOL

These include the right to be meaningfully consulted throughout every stage of the development process, and the right of affected indigenous communities to give or withhold their consent to these activities. Also troubling, say PANG and BOL, is the fact that the SPC-EU framework undercuts established environmental law tenets such as the precautionary approach and the avoidance of transboundary harm by emphasizing the purported benefits of seabed mining while minimizing both the risks and adverse impacts of seabed mining. In addition to creating an overly positive picture of deep sea mining, the framework appears to prioritise creating a climate favorable to industry operators over the economic, cultural, and environmental rights of indigenous peoples.

“While we appreciate the attempt to provide a model legal framework for the Pacific region, we urge the SPC to supplement the RLRf with comprehensive provisions that properly enshrine both FPIC and the precautionary and transboundary harm principles,” says PANG Coordinator Maureen Penjueli. This is critical because some of our island nations will likely adopt this framework with all of its problematic aspects. Only by properly embedding these norms can the framework be brought into conformity with international best practices respecting environmental protection and the rights of indigenous peoples. The BOL-PANG report has been published by the University of South Pacific. It is anticipated that the report will serve as a useful tool for many indigenous communities and civil society organizations currently at the forefront of these activities.

[Download: An Assessment of the SPC Regional Legislative and Regulatory Framework \(RLRF\) for Deep Sea Minerals exploration and exploitation - FINAL Report](#)

European consortium launches seabed mining project

David Foxwell, Offshore Support Journal, 17 March 2016

February saw a European consortium launch a new Horizon 2020 project known as Blue Nodules. The project addresses the challenge of creating a viable and sustainable value chain to retrieve polymetallic nodules from the seabed. It will develop and test new highly-automated and sustainable technologies for deep-sea mining with minimal environmental pressures. The technical side of the project is dedicated to subsea harvesting equipment in addition to the in-situ seafloor and sea surface processing of polymetallic nodules. The operational aspect focuses on sea operations and

logistics, including compliance with, and development of, rules and regulations, and the business case. The independent, environmental part of the initiative will focus on environmental pressures and on an environmental impact assessment. In all areas, Blue Nodules will build on the results of the European FP7 projects, MIDAS and Blue Mining and the EcoMining pilot action funded by the JPI Oceans initiative of the European science foundations.



Blue Nodules is one of a growing number of projects focusing on technical solutions for extracting resources from the seabed

Rodney Norman, director at IHC Mining, part of Royal IHC, which is co-ordinating the project, explained that Blue Nodules is significant because it allows the European consortium to expand technological development beyond the vertical transportation system of Blue Mining to the seafloor mining vehicle and other components of the system. On 9 and 10 February, IHC Mining, which is the coordinator of the project, hosted a Blue Nodules kick-off meeting at its premises in Kinderdijk. “The partners are excited to launch the project and start working together to achieve its objectives,” they said in a statement. “Stakeholder expectations will be taken into account by way of a stakeholder group and an advisory board. An independent ethics advisor will safeguard the ethics standards of the project.”

West Papuan Diplomat In Running To Head Freeport Mine

Ambassador Manufandu not considered supportive of pro-independence

WELLINGTON, New Zealand (Radio New Zealand International, March 17, 2016) – A West Papuan diplomat has emerged as a contender to be the next head of PT Freeport Indonesia, which operates a major gold and copper mine in Papua province. The company's CEO, Maroef Syamsoeding, resigned last month, and Tabloid Jubi reports that calls are growing for the vacancy to be filled by a Papuan. Michael Manufandu, who is a former mayor of Jayapura, has until recently been Indonesia's ambassador in Colombia.

He told Tabloid Jubi that if nominated by Jakarta he is ready to become CEO of PT Freeport, whose parent company is American. Because of its massive Papua mining complex, Freeport has been the largest single source of corporate tax for the Indonesian state for years. Mr Manufandu said he has the attributes which the job require, including high level managerial abilities, as well as extensive knowledge of the economy. He has also represented Indonesia at meetings of the Melanesian Spearhead Group, of which the country is now an associate member. Mr Manufandu is not considered to be supportive of West Papuan pro-independence efforts.

Papuan push for participation in Freeport

A rector at Papua's Cenderawasih University, Dr Onesimus Sahuleka said it was time for Freeport to give credence to indigenous Papuans by having one selected as the CEO of the company. He's the latest of a series of Papuans to call for more involvement of the indigenous people in the man-

agement of Freeport's local operations as well as a greater share of the benefits. This comes amid protracted negotiations between Jakarta and Freeport over the renewal of its contract to operate in Papua beyond 2021. Despite the huge revenues generated by the mine complex in their province, Papuans have largely been ignored by the negotiations. The Papua provincial governor, Lukas Enembe has indicated his administration would push to get a ten percent stake in PT Freeport Indonesia.

Repsol pushes ahead at Stanley

The National, March 17th, 2016

SPANISH company Repsol is pushing ahead with development of Stanley and the drilling of exploration wells in petroleum prospecting license 269 in Western, according to the company. The company was warned by the Government to push forward with its development work which was slow. The company in a statement yesterday said it had started its procurement process for the Stanley project by completing an expression of interest exercise. "The results received thus far show excellent participation from the industry, enabling Repsol to progress a competitive tender to select a suitable engineering service provider to design and develop the Stanley resources," it said. Repsol expects the contract, for front end engineering design and potentially engineering, procurement and construction activities, to be awarded in the third quarter of this year."

It is currently in discussion with Ok Tedi Mining Limited about the potential of supplying gas-fired power from the Stanley gas field. The company's Australia-Papua New Guinea country manager Jesus Chillón said: "This project is in the interest of many stakeholders. "It helps kick-start the Stanley project in a very challenging environment to provide Ok Tedi Mining Limited with a more sustainable, cleaner and weather-proofing energy supply solution. "It also helps create jobs and benefits for the people and landowners in Western. "We need to ensure that economic conditions are sound in order to make the project commercially feasible." He said Repsol had made progress with its drilling campaign in petroleum prospecting licence (PPL) 269 (Strickland wells) in Western "despite severe drought caused by El Nino affecting the navigability of barges in the Fly River.

Barrick focuses on improving efficiency

The National, March 17th, 2016

THE operator of the Porgera mine in Enga, Barrick Niugini Ltd, says it is focused on improving efficiency and reducing cost to ensure it remains cost-effective and productive. It was responding to questions from The National regarding what 2016 holds for the mine as global metal prices remained inconsistent. "The prevailing view across the industry is that the coming year will see a continuation of the challenging economic conditions that have impacted resource in recent times," the company said in a statement. "In anticipation of those challenges, Barrick (Niugini) Ltd remains highly focused on improving the efficiency and reducing operation cost at the Porgera Operations to ensure the mine remains as cost-effective and productive as possible.

"We have an ongoing strategy for continuous strategy and development of our workforces along with strong focus on safety, operational and environmental excellence which will ensure that PJV operates efficiently during these challenging times." It said the drought late last year created some minor challenges with regards to mine drainage in the Pogera mine complex but mining engineers were addressing these issues to good effect and production levels are expected to increase again soon. The company says law and order issues, including illegal mining, continued to be a challenge for the mine. A Government taskforce deployed to Progera had been having a positive impact on law and order situation in recent months, it said.

Gold project to start in Keman, Enga province

The National, March 17th, 2016

AN exploration company is ready to start work on the Keman area gold project in Enga as soon as it receives its licence from the Government, an official says. Gold Mountain chief executive officer Matt Morgan told landowners at Keman in the Kompiam-Ambum district last Monday that the company was ready. "My company is gearing up to carry out exploration in the area for gold in this challenging environment and the investment will be of mutual benefits to all including landowners, the company and the Government," Morgan said. The hearing was conducted by Iso Sando from the Mineral Resources Authority. Responding to concerns by some landowners that it was taking a long time to start, Morgan said exploration would be carried out as soon as the Exploration License Application (ELA) 2426 was approved by the Government. He said they were awaiting approval for Exploration License Application 2426 and Exploration License 1996. Women leaders Grace Mathias and Josepha Was said it was a breakthrough for the people. They said the people still lacked Government services in the area and the company's interest in minerals in the area was godly intervention that would bring benefits to the people.

MRA upset with OTML's fatal mine incident

Post-Courier, March 17, 2016

A disappointed Mineral Resources Authority has taken issue over the compliance standards applied by Ok Tedi Mining Limited following last week's fatal accident. It has already commenced what will be a thorough investigation into the exact circumstances surrounding the safety measures taken given the prevailing circumstance last Thursday. The deceased with two others were buried under a massive landslide of which the investigation will primarily focus questioning why the necessary safety precautions were not applied resulting in the trio being where they were not supposed to be. MRA managing director Philip Samar said it is disappointing that the incident had happened after the mine had just been granted permission to resume operations after a six-month shut down. He said the accident was one too many for the mining sector.

Mr Samar said OTML must take full responsibility of the tragic accident. "When we did our inspections a few weeks back and gave OTML the approvals to resume operations, we did so, on the company's proposed safety management systems, and the management's commitment to ensure that health and safety of persons employed at the mine is not compromised. "It is the responsibility of the mine operator to ensure that its daily operations are conducted in accordance with its safety management plans and systems," Mr Samar said. Mine inspectors issued a notice to OTML on Monday restricting work in the centre pit area except for some pit safety activities. Mr Samar said this fatality itself was one too many for the mining sector and appealed to all the mines to conduct their operations in a safe and responsible manner ensuring that the safety and welfare of its workforce is priority. He extended MRA'S deepest condolences to the family of the victim.

Micah hails LNG potential

The National, March 16th, 2016

By MALUM NALU

PETROLEUM and Energy Minister Ben Micah says the Papua LNG joint venture in Gulf is making strong progress on commercialisation with Total transitioning as operator from InterOil last year. He told a LNG conference in Singapore yesterday that the location of the plant had already been decided "with the liquefaction plant to be located right next to the PNG LNG plant". "Antelo-

pe is currently being appraised and we will soon make the all-important concept select decision for size and type of LNG train,” he said. “The project expects to enter FID (final investment decision) next year and will target sanctioning after that. “While we face an oversupply of LNG today, LNG production from Papua LNG is only expected to commence in early to mid-2020s. “This is exactly the time when LNG markets are expecting a rebalancing of demand and supply, with over 100 million tonnes of uncontracted demand.”

He said the key partners in the project were Total as the operator, InterOil, Oil Search and the State through Kumul Petroleum. “This is truly an exciting project, which has already received a lot of interest from investors, financiers, contractors and more importantly, buyers.” Micah said PNG had enough gas reserves for export and domestic use. He said he spent two days in Japan talking to potential gas buyers, upstream investors, petrochemical proponents and financiers. “I have been encouraged by the level of enthusiasm shown by the Japanese to consolidate and expand the level of their participation in the development of the hydrocarbon industry in Papua New Guinea, despite the current depressed market conditions in oil and gas prices.”

Porgera: ‘Tribal fights destroy Government services’

Post-Courier, March 16, 2016

BY JEFFREY ELAPA

Lagaip-Porgera MP Nixon Mangape said the independent state of PNG, through the Porgera Development Authority, has spent a lot of money to develop the area but many of those developments have been destroyed by the people. Speaking during the peace reconciliation ceremony between warring factions in Porgera last week, Mr Mangape said the Government has spent millions of kina to build schools, health facilities, agriculture projects and roads, but the people have destroyed and burnt them down during tribal fights. He said one of them was the level seven Tipinini Primary School and the Yuyan Primary School that were burned to ashes in a tribal fight. Mr Mangape said the people should not blame the Government because vital services were delivered, but the people were negligent in looking after these services, not only in Porgera but also in the Paijala-Hewa areas. He said most of the tribal fights have erupted as a direct result of royalty payments from the Porgera gold mine. Mr Mangape called on the developer to clarify them.

Ramu: Test confirm spill not toxic

Post-Courier, March 15, 2016

GOVERNMENT officers have confirmed the slurry that leaked into the environment as a result of damages to the pipeline operated by Ramu Nickel in Madang is not toxic and poses no danger. In a statement released yesterday the Chinese miner said a senior officer with the Conservation and Environment Protection Authority (CEPA), Gabriel Luluaki had confirmed this following a site visit last Friday. The incident had occurred on March 2, and 29 kilometres away from the Kurumbukari Mine at Kamakama in Uguruwe ward 17 of Usino LLG along the Madang-Lae highway. The miner said Mr Luluaki was taken to the site by RamuNiCo Corporate Health Safety and Environment Officer, Steven Opur after it had convened its First Quarter Review Meeting of Ramu NiCo Project memorandum of agreement (MOA). It was clarified from the stakeholders meeting that the slurry contains no toxic chemicals and chromite, except fresh water with mixture of soil in the form of mud before it is transported along the 135 kilometre slurry pipeline to Basamuk Refinery. Mr Opur during his presentation at the First Quarter Review Meeting explained that the slurry has no negative impact on water, food gardens, fish and people who use them. Mr Luluaki’s inspection also refuted media report that the slurry contained acid and pose danger to the lives of the inhabitants within the surrounding environment.

Court: PNGSDP to release accounts

Post-Courier, March 16, 2016

THE Government's move to wrest control of the PNG Sustainable Development Program (PNGSDP) inched forward when the High Court ordered the Singapore-based operating company to release key accounts for inspection. The *Strait Times of Singapore* reported that the court found the Government had the right to examine the documents based on its contract terms with PNGSDP. The items for inspection include ledger and management accounts as well as disputed documents involving expenditure. Justice Judith Prakash, in judgment grounds last month, further held the State had a right to make copies of the documents. "Accounting documents are some of the most information-sensitive documents in a company's records and often require detailed and lengthy study that is not achievable during the physical inspection of documents," she added. The Singapore-incorporated PNGSDP is a non-profit firm which was tasked with developing the mines for Papua New Guinea's social and economic benefit.

It was formed in 2001 and is based there so that it can remain independent and unaffected by any potential change in the PNG Government, according to former Prime Minister Sir Mekere Morauta, who was the PNGSDP board chairman. A third of the annual dividends from the company that runs the mine - OK Tedi Mining was to be used for a fund to support PNG development projects while two-thirds were ploughed into a long-term fund to benefit PNG after the mine closed. PNGSDP owned 52 per cent of the shares in OK Tedi while the PNG state owned 20 per cent. The judge noted that at the end of 2012, the development fund contained US\$158 million (S\$217 million) while the long-term fund had US\$1.35 billion. PNG claimed PNGSDP had amended its Memorandum and Articles of Association (M&A) in 2012 without State consent. Justice Prakash found there was an enforceable collateral contract between the parties that incorporated the M&A as part of its terms. "This point is relatively uncontroversial," she said, in allowing the accounts inspection but making clear the minutes of meetings and disputed papers involving gifts or sale of subsidiaries and assets were excluded.

Japanese keen on LNG

The National, March 15th, 2016

By MALUM NALU

SEVERAL of Japan's largest energy importing companies have expressed great interest in becoming customers of Papua New Guinea's second liquefied natural gas project, Petroleum and Energy Minister Ben Micah says. He said this from Japan yesterday after meeting with the heads of the companies. Micah said he was satisfied with the discussions on the next phase of petroleum development in PNG and reaffirmed ongoing commitments to guarantee Japan's energy requirements. "The discussions have established understanding to build on the strength of the PNG LNG Project, where the focus of the discussions has been on Papua LNG Project," Micah said. "The Japanese gas buyers, especially Osaka and Jera – a joint venture between Tepco and Chebu Electric – have expressed strong desire to buy more LNG from PNG. "Other companies that I had very constructive meetings with were JX Nippon and Sojitz Corporation, who are very keen to increase their interest in upstream exploration and development, especially in the new development of the Papua LNG Project and other assets in the Gulf.

"There is also strong interest on development of petrochemical industry in PNG by Sojitz Corporation, Itochu/Mitsubishi Gas Chemical Company and Marebuni. "I met with Japanese Bank for International Corporation (JBIC) and gave assurance that their investment in PNG through Japanese companies in PNG LNG Project will be safe and on behalf of the PNG Government thanked them for their continued support and investment in PNG." Micah described his first trip to Japan as Petro-

leum and Energy Minister as “very fruitful”. “I am confident PNG’s national oil company, Kumul Petroleum Holdings Ltd, will now follow through with the Japanese corporations and drive the PNG LNG Project expansion, Papua LNG Project and other projects in partnership with ExxonMobil, TOTAL, Oil Search and InterOil,” he said. Micah left Japan yesterday to attend an LNG conference in Singapore.

Pacific region: Deep sea mining hyped by vested interests, but serious concerns remain

By Duncan Roden, Green Left Weekly, March 14, 2016



A cost-benefit analysis released by the Secretariat of Pacific Communities (SPC) and the European Union on potential deep sea mining (DSM) projects in three Pacific countries found that the projects can be viable. But other research suggests there remain serious concerns about the new, untested DSM industry. DSM involves mining rich deposits of minerals on the sea floor. Some deposits exist as nodules that can be vacuumed up. Others form from hydrothermal vents that spew out minerals over thousands of years, creating rich beds of deposits. These vents sustain unique deep sea ecosystems that rely on the venting chemicals for survival. DSM puts such ecosystems at risk. The SPC-EU report looked at specific deposits of seafloor massive sulphides in Papua New Guinea, manganese nodules in Cook Islands and cobalt-rich crusts in the Marshall Islands. It found that mining the deposits in PNG and Cook Islands would yield net benefits, but that the Marshall Islands deposit would not be economically viable.

But Papua New Guinea Mine Watch said the report:

1. Fails to put a monetary value on many of the potential environmental costs;
2. Fails to deal with the fact that billions of dollars in mining revenues have already failed to improve the lives of ordinary people in PNG;
3. Fails to acknowledge the past failure of PNG authorities to manage land based mining and its terrible social and environmental impacts; and
4. Assumes, totally against the evidence, that any environmental damage will be fixed by the mining company.

DSM has been identified as a possible economic “game changer” for Pacific Island countries, the SPC said. The potentially huge increase to GDP for these small nations, which mostly rely on agriculture, fishing and tourism, could end their dependence on foreign aid. But the future of the industry is uncertain, due to the falling price of resources and untested new technologies. The Cook Islands, for instance, is struggling to attract investors for its deep sea minerals. Cook Islands finance minister Mark Brown said: “The current economic climate I guess is not conducive to investment in this particular area right now.” There are also many uncertainties about the environmental and socioeconomic risks that DSM might have on Pacific island environments, economies, societies and

cultures. The SPC is running the Deep Sea Project, a €4.4 million joint initiative with the EU active since 2011. Its stated goal is “helping Pacific Island countries to improve the governance and management of their deep sea minerals resources in accordance with international law, with particular attention to the protection of the marine environment and securing equitable financial arrangements for Pacific Island countries and their people”.

The project has aided some Pacific nations with developing deep sea mining laws, which are virtually non-existent around the world. Recently, China joined that short list, passing a DSM law on February 26. China has indicated its interest in a DSM pilot project in Antarctica — despite a treaty that bans mining there — and a joint expedition with Russia to the Arctic Ocean. The positive findings of the SPC-EU cost-benefit analysis have fuelled concerns of DSM activists that the EU has other motives. The European Commission is funding a DSM project to develop and test new DSM technologies. One of the project's industrial partners is DEME. Its subsidiary Global Sea Mineral Resources has exclusive rights for exploration over 76,728km² of seabed in the eastern part of the Central Pacific Ocean. Despite potential conflicts of interest, the SPC has had to heed the concerns of Pacific civil society. During the DSM Project several countries and other stakeholders have raised concerns about the potential impacts on fisheries “given the extremely high importance of fisheries, including commercial, artisanal and subsistence fisheries, to Pacific Island economies, societies and cultural identities”.

The SPC plans to start an independent assessment of the impact of DSM on Pacific Island fisheries, expected to be completed later this year. But there are many other concerns besides fisheries, such as biodiversity. A [study](#) published in *Marine Environmental Research* found that hydrothermal vents have unique combinations of species that can vary from one vent to another. The ecological communities at active vents also differ from those at inactive vents. The study concludes that a mining operation would need a network of protected areas to ensure that the biological diversity can bounce back after mining has stopped. This is at odds with current mining proposals that have single or very few protected areas. <http://www.deepseaminingoutofourdepth.org/wp-content/uploads/accountabil...> The Deep Sea Mining Campaign's report [Accountability Zero](#) critiqued Canadian company Nautilus' Environmental and Social Benchmarking Analysis (ESBA) of its Solwara 1 DSM pilot project off the coast of PNG. It found that the ESBA lacked a cost-benefit analysis, which makes it effectively useless to policymakers. It also:

- rated Solwara 1 against assets, ecosystem services and values that relate to terrestrial mining sites rather than deep sea. For example, it rated Solwara 1 favourably in terms of ground and fresh water quality, air quality, pollination, soil formation and retention, recreational activities such as hiking and bike riding, and loss of agricultural land;
- failed to account for social, cultural and economic values of oceans;
- failed to account for the cumulative impacts of the several deep sea mines Nautilus intends to operate in the Bismarck Sea;
- used a questionable comparison with selected mines on land; and
- rests its case entirely on copper production and omits the analysis of gold production, which Nautilus expects will make up 40% of revenue.

Mining companies are understandably eager to get their hands on the potential profits from DSM. But it is clear there is a lack of understanding of the effects the industry might have, especially on the already vulnerable Pacific Island countries.

Malnourishment woes persist in drought-hit PNG

Water and food shortages remain critical in parts of Papua New Guinea such as Western Province and Milne Bay Province amid a prolonged drought.

Johnny Blades, RNZ International, 14 March 2016



A mother and her malnourished child, Bimadbn Village, Morehead, Western Province, Papua New Guinea. Photo: Penny Johnson

The El Nino-linked drought, which began in the middle of last year, appears to finally be over in some parts of PNG, following recent bouts of rain. However, a specialist in PNG agriculture and food, Mike Bourke, explained that large parts of the south had still not had any significant rain since the drought began. Dr Bourke, who is an honorary associate professor at the Australian National University, said the drought situation remained bad in Western Province where many remote communities remain malnourished. "The images that we're seeing from particularly the Nomad Mogulu area up in the Strickland in the centre of that province, and also down the south of Morehead where Queensland islands, Indonesia and Papua New Guinea meet, they're very disturbing, frankly, very disturbing images of what's happening to children and adults."



A father holds his malnourished son in Western Province, Papua New Guinea. Photo: Sally Lloyd

Church groups continue to play a leading role in assessment of the drought impacts across PNG. Dr Bourke, who has been getting drought updates from various church and provincial government figures around the country, said reports from Milne Bay were also grim. "Most parts of PNG have

got better or are getting better, but in Milne Bay the authorities are telling us the drought is getting worse, particularly in the grassland areas north of Alotau, but also in the very small islands where they report eighteen thousand, seven hundred people are still struggling with both water supply and food supply."



Dry landscape, Wararais, Markham Valley, Papua New Guinea. Photo: Rebecca Robinson

Many affected

The head of Papua New Guinea's National Disaster Committee, Dickson Guina, said last week that up to 3 million people in the country were still affected by the drought. "But it may increase because the drought effects are still continuing in most areas of the country, in the low coastal areas." There was not enough data available yet to give a firm death toll from PNG's drought at the national level, according to Dr Bourke. "We do know the death toll has gone up particularly in parts of Western Province, probably in some of the high altitude areas," he explained. The various drought updates from around the country are being presented this week by Dr Bourke to government officials as well as some of PNG's development partners such as the United Nations. The PNG country director for the UN Development Programme, Roy Trivedy, said last month that many thousands of people remained in stress for lack of adequate food and clean water. Mr Trivedy warned it would be months before some of these communities could provide for themselves from their own food gardens.



Yahoma, Kandep Valley, Enga Province, Papua New Guinea Photo: Supplied

Meanwhile, communities in regions at higher altitudes are still working to build up their staple crops again after last year's frosts, combined with the drought, devastated many food gardens.

Drought response

PNG's disaster management agency has been co-ordinating the official drought response, but the PNG government has not yet asked its main international partner, Australia, for help with delivery of food. Dickson Guina dismissed the suggestion that the government has tried to wash its hands of the drought crisis. "I think the government has responded positively," he said, describing an improvement in overall delivery of relief supplies for affected parts, while admitting some gaps in the response. "In terms of the logistics, the accessibility, some districts have not got relief on time because of those challenges." Mike Bourke said that so far, there had been useful food relief efforts in some drought-impacted areas, but very limited relief in other affected parts.

In Western Province, the Ok Tedi Development Foundation has been distributing food relief around some parts of the province with transport help from Australia and New Zealand. In Milne Bay, the provincial government utilised money made available by central government late last year to distribute relief. However in both cases, authorities appear to be faced with a big backlog of communities needing urgent relief. Dr Bourke said help in getting food and water to the was very much still needed. How long that help would be needed for, he advised, would depend on access to staple foods such as sago, recovery of crops at the higher altitudes, as well as when the rains might come in the far south.



Frost damage in Kaugul Valley, Western Highlands province, Papua New Guinea. Photo: Kud Sitango

World's largest sovereign wealth fund dumps PanAust shares

PNG Mine Watch, 14 March 2016

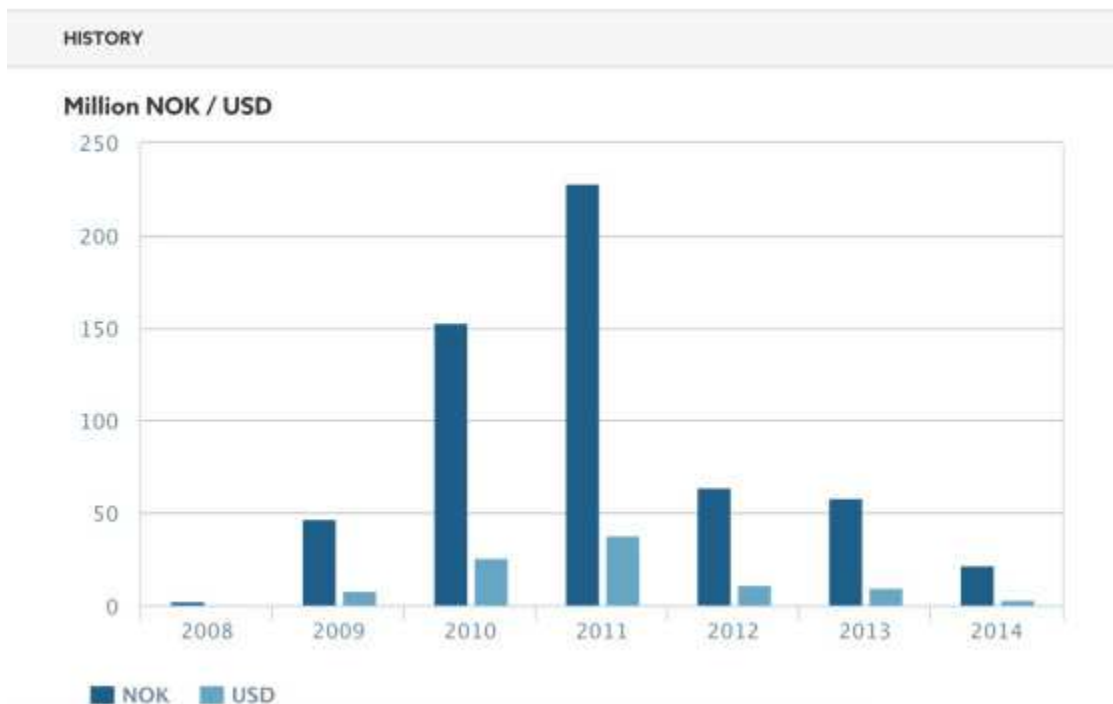


The mighty Sepik river is under threat from mining

Norway's Government Pension Fund has dumped its shares in Australian mining company PanAust, the company planning to build the controversial Frieda open pit copper mine.

The Fund is advised by a formal Ethics Committee and is sensitive to both environmental and human rights concerns. The Fund has recently divested from 11 international companies because of their involvement in rainforest destruction. In 2011 the Fund owned PanAust share worth US\$38 million, by 2014 that holding had been reduced to just \$3 million and the Fund's 2015 report reveals it has dumped the miner completely from its portfolio.

PanAust acquired its interest in the controversial proposed Frieda river mine from Xstrata in 2013. The mine site sits in the headwaters of the Sepik River, which winds its way through 1,000 kilometres of jungle valleys and wetlands. The Sepik River, one of the largest pristine river systems in the Asia-Pacific region, is home to hundreds of thousands of people who rely on the river. Prominent Papua New Guineans are concerned about the proposed mine's environmental and social impacts and claim PanAust is dumbing down the mine plan and safety standards to save money.



The Norwegian Fund has been dumping PanAust shares since 2012.

Lihir defends operations

The National, March 14th, 2016

By Gedion Timothy Lapan

LIHIR Gold Limited (LGL), operator of the Lihir mine in New Ireland, says it continues to honour environmental obligations already in place with the Londolovit community. This followed threats by the Londolovit Sagomana Association (LSA) that Lihir was next in line to be closed after Ok Tedi because LGL failed to honour its commitment to environmental obligations. The LSA is a newly-formed association of resource owners of the Londolovit River where the mine gets water for its operations. Association spokesperson Roselyn Arau said they were disappointed after LGL refused to sign as a party to a new proposed Water Use and Compensation Agreement they submitted to LGL on Feb 12, 2016. She claimed the new proposed water agreement was mandatory under recommendation number four (4) of the Londolovit River Environmental Audit Report by Australia's Moroka Pty Ltd in August, 2015 sanctioned by State through CEPA (Conservation and Environment Protection Authority). "In the proposed agreement, the Londolovit impacted community

through their newly-formed Londolovit Sagomana Association Inc. (LSA) had sought among other demands the following,” Arau said.

1. A K6 million annual payment under Lease for Mining Purpose (LMP) 34 and Mining Easement (ME) 73;
2. Initial payment of K12 million representing these payments for the years 2014 and 2015;
3. Increase payment of water use from K0.01 per litre to K0.50 per litre amounting to some K19 million annually;
4. K10,000 every day of extraction when water flow is below 200 litres per second;
5. LGL to fix and maintain the current established extraction facilities including the cut off valve and water metre; and,
6. Londolovit community shall be allowed to enter the LGL water extraction facility to access the metre readings.

However, LGL general manager Craig Jetson in statement said LGL’s position was that it already had an agreement in place with the Londolovit community for impacts on the river adding it has honoured and continues to honour the terms of this agreement. Jetson clarified that the proposed new agreement was not a recommendation of the CEPA audit. “What was recommended by CEPA was a review of the current settlement agreement that LGL has in place with the community and LGL is committed to doing this,” he said. Jetson said the terms of the new proposed agreement were inconsistent with the terms of the Environment Act as it requires that LGL to pay a water extraction fee to the Londolovit Sagomana Association. “The two key State regulatory authorities (CEPA and MRA) have both confirmed in various letters to LGL and the Londolovit community that water rights and water extraction fees are exclusively vested in the Independent State of Papua New Guinea,” he said. “LGL has copied both the MRA and CEPA on its response to the Londolovit Sagomana Association so that they can provide guidance and clarify the legal position to the members of the Association.”

Ok Tedi mine suspends operations after fatal accident

Post-Courier, March 14, 2016



By JEFFREY ELAPA

OPERATIONS at the Ok Tedi mine in Western Province have been suspended after a senior employee lost his life in a landside that occurred at the main open pit mine last Thursday. The Ok Tedi Mining Limited management said in a statement that the accident occurred at about 5pm when a section of rock and dirt fell from the western wall of the mine into a sump located at the bottom of the pit and covered one of its employees as he was attending to pit drainage. OTML said all other employees in the mine were positively accounted for the night before they returned from the mine to the camp. Managing director and chief executive officer Peter Graham said initial efforts were carried out to recover the body but was postponed to ensure the safety of emergency response personnel, and the rescue efforts continued at daylight on Friday morning.

Mr Graham said that Ok Tedi mine has contacted the family of the employee and advised of the accident and also extended their sympathy. Graham said as a mark of respect for a lost workmate, all operations across the company have been suspended until further notice. He said Government authorities have been notified and an investigation has started. According to sources, heavy rain in the area during the previous two days had caused a huge landslide and covered three employees of which two were rescued. Several machinery at the mine pit were also covered. The work at the storage facilities at Kiunga where the ores are stored before shipment has also been suspended. A similar landslide occurred at one of the main open pit where high grade gold is mined back in 2015, but no lives were lost. Last Thursday's accident happened only 10 days after the resumption of mine operations after being closed for almost seven months following the extreme dry weather caused by the El Nino phenomena. It comes when the company announced its achievements in trying to export the first production since resuming operations that is expected to be shipped on March 20.

Ceremony marks end to Lihir mine conflict

Post-Courier, March 14, 2016



A RECONCILIATION ceremony marked the end of a six-year conflict over the ownership and benefits from the Lihir Gold Mine in New Ireland Province. The ceremony marked an understanding that was signed in Kavieng by Governor Sir Julius Chan, Nimamar Local Level Government president Ambrose Silul and LMALA chairman James Laketan in March 2015 to work together for the best interest of the people of Lihir and New Ireland. The reconciliation process concluded that there would be two parts to the peace process: the first being the spiritual reconciliation held on February 26-27. The second part was performed on Lihir Island at Potzlaka, a Government station on March 5. A provincial Government delegation led by chairman sports and youth representative Engelberth Lutham attended the reconciliation ceremony at Potzlaka.

Mr Lutham congratulated the leaders of Lihir, especially the LMALA chairman James Laketan and Nimamar president Ambrose Silul for their initiative, dedication and commitment through hard work towards the preparation of the successful event. "Working together, there is nothing we cannot do," Mr Lutham. The reconciliation process paves the way forward for the six-year conflict over the ownership and benefits of Lihir sustainable development plan as stipulated in their integrated benefits package 2 signed in 2007. The six clans and 15 wards, with all the leaders of Lihir Island stood together to express great satisfaction as a result of the successful ceremony after suffering from past years' difference over the benefits from Lihir gold mine. Governor Sir Julis Chan, who was overseas and could not attend, said this was a significant event not experienced elsewhere in the country. "Once again, New Ireland has shown the way to a peaceful and lasting settlement of disputes," he said.

PNG government closer to gaining control of mines in Western province

Court orders their S'pore-based operating firm to release key accounts for inspection

K.C. Vijayan, The Straits Times, Mar 12, 2016

The Papua New Guinea (PNG) government's move to wrest control of gold and coal mines in its Western Province inched forward when the High Court here ordered the Singapore-based operating company to release key accounts for inspection. The court found the PNG government had the right to examine the documents based on its contract terms with the PNG Sustainable Development Program (PNGSDP). The items for inspection include ledger and management accounts as well as disputed documents involving expenditure. Justice Judith Prakash, in judgment grounds last month, further held the PNG state had a right to make copies of the documents. "Accounting documents are some of the most information-sensitive documents in a company's records and often require detailed and lengthy study that is not achievable during the physical inspection of documents," she added.

The Singapore-incorporated PNGSDP is a non-profit firm tasked with developing the mines for PNG's social and economic benefit. It was formed in 2001 and is based here so that it can remain independent and unaffected by any potential change in the PNG government, according to the country's former prime minister Mekere Morauta, who is the PNGSDP board chairman. A third of the annual dividends from the company that runs the mines - OK Tedi Mining - was to be used for a fund to support PNG development projects while two-thirds were ploughed into a long-term fund to benefit PNG after the mine closed. PNGSDP owned 52 per cent of the shares in OK Tedi while the PNG state owned 20 per cent. The judge noted that at the end of 2012, the development fund contained US\$158 million (S\$217 million) while the long-term fund had US\$1.35 billion. PNG claimed PNGSDP had amended its Memorandum and Articles of Association (M&A) in 2012 without state consent.

The state is suing PNGSDP for failing to provide an account of all its dealings with its assets, claiming PNGSDP had dealt with them in breach of new programme rules. In denying the allegations, PNGSDP is counter-claiming that the state's purported removal of PNGSDP's directors and CEO in October 2013 was void and they had full authority to run the business. In the run-up to the pending main suit, the state sought this court order to access PNGSDP's books. PNGSDP, defended by Cavenagh Law lawyer Nish Shetty, argued the state had no right of inspection and, even if it did, the right did not include the documents sought. Wong Partnership lawyer Koh Swee Yen countered that the state must succeed, "especially in the light of the many admissions PNGSDP has made to the effect that the state has a right of inspection". Justice Prakash found there was an enforceable collateral contract between the parties that incorporated the M&A as part of its terms. "This point is relatively uncontroversial," she said, in allowing the accounts inspection but making clear the minutes of meetings and disputed papers involving gifts or sale of subsidiaries and assets were excluded.

Four major gas, oil project under department plan

Post-Courier, March 11, 2016

ACTING Secretary for Petroleum and Energy David Manau said there are four major gas and oil projects that are under his department's radar to make sure they are developed. In an exclusive interview Mr Manau said that his priorities are to look at the Papuan LNG project in the Gulf province to make sure that Total is true to its development. He said his next project will be to make sure the P'yang gas project by working together with the state team led by Chairman Daire Vele. He said as the regulator, his department will make sure that all regulatory processes are observed and do not want to rush things. Mr Manau said under his watch he also wants to make sure that the Petroleum retaining License (PRL 2) the K2 Elevala project is on stream to contribute to the development.

Ok Tedi mine shuts down after 3 killed in landslide

Post-Courier, March 11, 2016

BY JEFFREY ELAPA

THREE Papua New Guineans are said to be trapped in a landslide at the Ok Tedi mine in Western Province. Sources from the mine said last night that heavy rain in the area has caused huge rainfall that caused a landslide burying the three. Sources said operation closed as rescue team attempts to recover the bodies of the miners who are believed to be trapped among the collapsed ground and rocks. The Ok Tedi mine is an open mine and Ok Tedi Mining Limited the management would make an official report on the incident as rescue team continues to search for the bodies. The sources said heavy rain in the area has caused the landslide. They said that a similar incident caused the open pit mine, where high-grade gold is mined, to be covered with debris even before the mine shut last year. The latest incident happened only few weeks after the mine was reopened after the seven-month closure because of the El Nino-induced drought. The OTML management is expected to make an official statement today.

Court orders State to account for petroleum funds

Post-Courier, March 11, 2016

BY ADAM MERA

THE National Court has ordered the Southern Highlands Provincial Government, Governor William Powi and the State to account for all monies received from Petroleum Development Licences (PDL) 3 and 4 under the PNG LNG Project. The order was sought by the Gobe landowners of PDL3 and 4. The landowners who sought the orders are Dasa Limited, Seretapake Integrated Landowner Group, Kupo Construction Management Limited and Simbulu Resources Limited. The money in question was paid to the provincial government and the State under the Infrastructure Development Grants (IDG) and Business Development Grants (BDG) funds. The court has also ordered that no funds intended for PDL3 and 4 will be paid out to anyone with the consent until the matter has been fully deliberated on by the courts. Both parties – the State and the provincial government – have also been restrained from the dealing with the money in the trust account name Gobe PDL3 and 4 with account number 10006315731 and the court ordered for the account to be frozen.

The parties have been given one week – March 16 – to account for the monies before the matter returns to court. In handing down the decision, the court said that parties will be at liberty to have the matter resolved in a court ordered mediation exercise that is underway for the PDL8 of Tari, Hela Province. According to lawyer representing the landowners, Johnak Sakol Langah of Greg Manda Lawyers, the motion for the orders was filed in a proceeding seeking orders for cheques the landowners are entitled to from payments to PDL3 and 4 to be paid to them. The orders are also applicable to Southern Highlands provincial administrator Joe Kaiyo, provincial treasurer Kevin Pururno, Finance Secretary Dr Ken Ngangan and his deputy Steven Nikuiti who are all parties in the proceeding.

Upgraded mine facility transferred

Post-Courier, March 10, 2016

Australian miner-Crater Gold Mining Limited- yesterday announced that the upgraded gold mining plant has been transported to the HGZ Gold Mine project site situated in the Eastern Highlands Province. The company said commissioning of the gold plant will commence immediately. According to its market report the upgraded gold mining plant includes two new hammer mills, two high speed

centrifugal concentrators, gravity shaking tables and a new compressor. The incorporation of the upgraded gold mining plant will result in higher gold mining production, while the new centrifugal concentrators and shaking tables the company said, will also provide better gold recovery when compared to the existing testing plant. It said full mining capacity is anticipated during the 2nd quarter 2016 as the mining plant upgrade is fully commissioned. The company's PNG manager Richard Johnson said: "The company is excited by the upcoming phase, during which we anticipate an acceleration of our process of transition from gold developer to profitable gold producer.

"The objective of the Company is ongoing cash flow to establish the Company as a profitable gold producer. When we reach gold mining plant capacity, we anticipate producing some 10,000 ounces of gold in the first full year of production, at an all-in cash cost of below \$400 per ounce average over the mining lease term. The HGZ project is a high margin operation." Mr Johnson said. The company had stated that in addition to mining the HGZ, its recent discovery at the South Artisan Workings (SAW) Zone also represents the potential for additional mineralisation in close proximity to the HGZ gold 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 compliant resource of 24Mt at 1.0 g/t Au for 790,000 ounces at the nearby Mixing Zone project at Crater Mountain" Mr Johnson said.

New Caledonia Tables Plan To Support Nickel Industry

Huge losses due to global price drops addressed

WELLINGTON, New Zealand (Radio New Zealand International, March 9, 2016) – The New Caledonian government has tabled a plan to support the nickel industry which is facing a sharp decline because of the drop in the price of nickel. The president Philippe Germain has described the plan as a complete response to the current situation and being in line with the undertaking made in France last month when New Caledonian leaders met the prime minister, Manuel Valls. Mr Germain says the context has changed and the government will now re-examine demands to export low-grade ore to China. He says up to two millions tonnes a year could be considered for export. In October, his government approved one application to ship 300,000 tonnes to China over 18 months. The plan also provides for the shipment of 550,000 tonnes of nickel ore to a South Korean plant set up in partnership with New Caledonia's northern province. The territory's three plants incurred huge losses last year, triggering concern about their viability. Last month, Mr Valls said the state would guarantee that the SLN plant in Noumea could continue to operate.

Mining Act review ensures sustainability: Chan

Author: Freddy Mou, PNG Loop, March 9, 2016

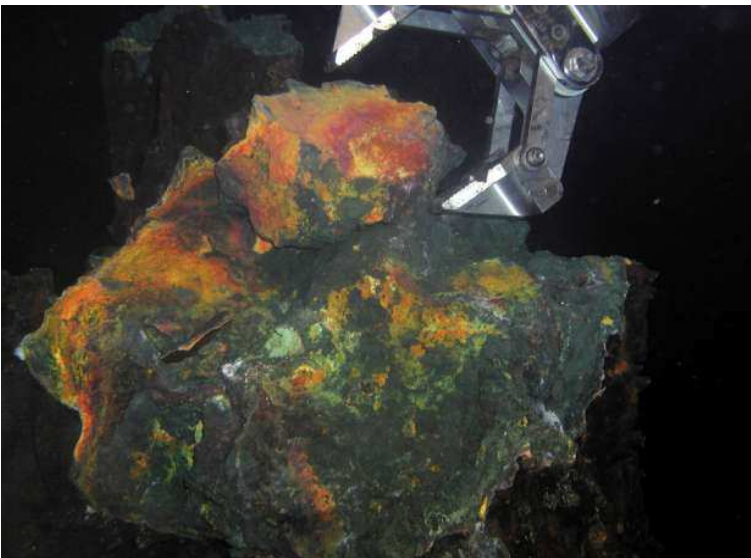


Mining Minister Byron Chan says the review into the Mining Act and the Mineral Resources Authority Act is aimed at ensuring “sustainability”. Chan said the review will bring in six new mining policies. “We must ensure the footprint left behind by mine development brings about tangible benefits that are sustainable after mine closure.” Chan said the policies had been derived after wide consultations with provincial governments, landowners, the civil society, non-governmental organisations and State agencies over a four-year period with more than one-and-a-half-years of talks with the industry through the PNG Chamber of Mines and Petroleum.

However, he did not mention that the industry was opposed to many of the proposed changes on the grounds they would adversely impact future investments in the country. Meanwhile, executive director of the PNG Chamber of Mines and Petroleum, Greg Anderson said the Chamber is very concerned that the proposed changes to the Mining Act and the Mineral Resources Authority Act could potentially curtail future exploration and development activity. “We therefore hope that the Government will carefully consider the implications of these amendments for future economic growth and prosperity,” he said. He added that stable government policies and a favourable investment climate are critical for future growth within PNG’s resources sector.

PDAC 2016: Conversation starting to change on Nautilus and seafloor mining

Peter Koven, Financial Post, March 8, 2016



Nautilus. A "hand" of a remote operated vehicle picks up a piece of rich gold-copper ore recovered from the seafloor in 1,700m of water in the Bismarck Sea offshore Papua New Guinea.

Seafloor mining is one of those things that a lot of investors won’t believe in until it is actually proven to work. But there is a growing acknowledgement that it could well happen soon. As Nautilus Minerals Inc., the pioneer of this business, inches closer and closer to a planned start of operations in 2018, chief executive Mike Johnston said the conversation around Nautilus is changing. In general, people no longer doubt this company will ever put its mining plan into action. Instead, they simply question whether it will work the way Nautilus hopes.

“This project is pretty binary to people — you either like it or you don’t,” he said in an interview. He said investor confidence is building each time Nautilus reaches another milestone. Last month, the company took delivery of seafloor production tools. Johnston said the preparation of the 230-metre-long vessel is also going well and it should leave the dock in the middle of next year. Nautilus still needs more capital to initiate production at its Solwara 1 project in Papua New Guinea. The company wants to raise another \$125 million to \$175 million, which is bigger than its current market capitalization (about \$94 million). Johnston maintained he is confident Nautilus will be able to

raise those funds, which could come from a combination of sources such as strategic investors, debt, equipment financing and a royalty. The company has spent about \$225 million to date.

LNG removes gold to be PNG's top export commodity

Post-Courier, March 08, 2016

LIQUEFIED natural gas (LNG) has overtaken gold traditionally PNG's top export commodity, PNG Chamber of Mines and Petroleum executive director Greg Anderson says. In his views carried in the chamber's new look newsletter, also its first edition for 2016 Mr Anderson said this is since the September quarter of 2014. Mr Anderson said as long anticipated, the LNG project has taken the PNG economy to a new level. "According to the Treasury Department, LNG exports were valued at K6.3 billion (gold – K5.46 billion) with associated condensate sales worth K1.38 billion in PNG. "As a result, total PNG exports soared from K13.3 billion in 2013 to K21.6 billion in 2014. "According to data from the Bank of Papua New Guinea LNG exports by the September quarter last year were already valued at K7.59 billion with condensate sales worth an additional K1.16 billion, taking total PNG exports to K17.5 billion. "When the BPNG publishes its 2015 year-end figures, PNG export revenues are likely to hit another record high even though crude oil and LNG prices are much lower than they were when LNG exports commenced in May 2014,"

Mr Anderson said. He said in 2014 total mineral exports – gold, copper, nickel and cobalt – were worth K7.97 billion or just a little more than the value of LNG and condensate exports. He said that picture changed last year when mineral export revenues in the nine months to September totalled K5.33 billion versus K7.59 billion for LNG and an additional K1.16 billion from condensate. "By contrast, PNG's mining sector has been doing it really tough. The Ok Tedi Mine will resume operations in March after it was temporarily closed down as a result of the *El-Nino* induced drought, the Porgera mine saw a sharp fall in gold production in the December quarter with mill operations also hit by the drought," he said. However he expressed optimism stating that despite these ongoing challenges, the mining sector's contribution to the economy should improve in 2016 with re-commencement of Ok Tedi, possibly better gold production at both Porgera and Lihir, and nameplate production at Ramu nickel-cobalt project.

Cooks' Tongareva Rejects Sea Bed Mining, Fishing Development

Government plans for fishing hub a no-go for Penrhyn

By Cameron Scott

RAROTONGA, Cook Islands (Cook Islands News, March 7, 2016) – Tongareva (Penrhyn) has issued a firm "no" to sea bed mining, purse-seining and fishing hub proposal – and even the idea of a police patrol boat base on the island. The rejection of purse seining and the development of an ambitious harbour and service facilities for local and foreign fishing boats is a blow for development venture Merchants of Paradise – and for government, which was said to support the idea of a fishing base on the island. A government delegation led by Prime Minister Henry Puna and including Minister of Finance Mark Brown and three MPs made a controversial tour of the northern islands last week and claimed they had received plenty of support for rejection of an anti-purse seining petition presented to parliament last year. However in his weekly article for CI News today, columnist Wilkie Rasumssen says at the group's meeting on Tongareva, things quickly went wrong for the delegation. "Without any reservations, the verdict was "no" to the fishing hub idea, the trans-shipment facility. No to any fishing boats coming to the island and no, people do not even want the new patrol boat to be based there."

Wilkie says that at the Tongareva meeting, Puna played on the issue that the people opposing the delegations ideas were being emotional and that he and his delegation based their arguments on facts." Plans to establish a fishing base on the island were first revealed in CI News by former Penrhyn MP Wilkie Rasmussen, who said at the time that he and all other Penrhyn Islanders in the Cook Islands would firmly oppose the project. Government, through prime minister's media man Trevor Pitt, quickly denied that there were any official plans to develop the island, a claim that was soon countered by Tepaki, who revealed that at his group's meetings with the Ministry of Marine Resources, secretary Ben Ponia had claimed government was very interested in the idea. Tepaki said government wanted to take the harbour development idea even further than the Merchants of Paradise plans, with berths for more fishing boats and even floating docks. Pitt later admitted that the idea that government was interested in developing a base on the island may have been the result of Ponia getting "a little bit carried away" during his discussions with Merchants of Paradise.

Why Is Mine Waste Being Dumped Directly Into the Ocean?

Terry Odendahl, Roy Young and Gary Wockner, EcoWatch, March 4, 2016

Picture a 4-foot diameter pipe running into the ocean filling the offshore canyons at a rate of 160,000 tons per day. The pipe runs from an enormous gold and copper mine directly into the Indian Ocean. The pipe is filled with mine "tailings"—a toxic sludge of heavy metals, rock and coagulants mixed in with the pulverized mine wastes that spreads and covers the seabed dramatically impacting plant and animal life and polluting the surrounding water. That is the Deep Submarine Tailings Disposal (DSTP) system at Newmont Mining's Batu Hijau copper and gold mine in Indonesia.



The Los Pelambres Mine in Chile proposes to dump wastes into the ocean.

Although Batu Hijau is the biggest mine that is using DSTP, at least 16 mines in eight countries are also using DSTP, with others to follow. Indonesia, Papua New Guinea and Norway lead the way using DSTP at their mines. In Chile, mines in the mountains north and east of Santiago are proposing to run pipes 50-100 kilometers so they can dump into the canyons of the Pacific Ocean off of the Chilean coast. The enormous Los Pelambres Copper Mine in Chile proposes to use DSTP in the future, discharging its wastes directly into the ocean.



The 4-foot diameter pipe dumping mining wastes into the ocean at Batu Hijau mine in Indonesia.

While you might think this mining disposal would be limited to the unregulated developing world, Norway actually leads with the most mines using this polluting disposal system. The mining wastes are dumped into Norway's pristine fjords, filling much of those fjords over time. One such mine has prompted a backlash by Norwegians who, working with Friends of the Earth International, have started the Save The Fjords campaign. As stated on their website, "In April 2015, the Norwegian government gave its final permission for an open-pit mine in a mountain called Engebo. The mine will dump more than 250 million tons of chemicals and waste into the pristine Forde fjord."



The Forde Fjord in Norway would be partially filled with mining wastes.

The Norwegian proposal sparked the "biggest civil disobedience actions in newer Norwegian history" where hundreds of people protested and 80 people were arrested blocking the mining action and trying to save the fjord. Through Global Greengrants Fund, a grant has been given to Friends of the Earth International to help inform Norwegians about the Engbo mine and its ocean disposal.



Norwegian protestors rally against filling their fjords with mining wastes.

It could make sense in some cases to dispose of mining wastes in the ocean, but only if those wastes were non-reactive and only if the toxic heavy metals in the wastes are removed. In addition, if ocean disposal does take place, it should be closely monitored and regulated and it should only happen where local people are not dependent on the marine environment for food. Proposals to use DSTP along the coastline of Chile threaten the Humbolt Current System (HCS) which sustainably produces almost 20 percent of the annual harvest of fish biomass. The HCS is the most productive marine ecosystem on the planet. Just four mines would dump one million tons of mine waste into the HCS every day, one gigaton every three years.

Over the last 25 years, international regulatory bodies including the 1996 London Convention and Protocol by the International Maritime Organization and the 1992 Oslo Paris Convention have attempted to set minor regulations for DSTP, but those standards are mostly being ignored. In the very few places where monitoring has occurred, studies have measured dramatic decreases in the amount of benthic meiofauna (animals less than 1 millimeter long) as well as all forms of benthic macrofauna (larger than 1 millimeter), which, along with phytoplankton, form the basis of the food chain in marine environments. Almost no research has occurred about the consequences of dumping 100's of millions of tons of mine wastes at current DSTP sites. This phenomenally destructive pollution is virtually unregulated across the planet's marine environments.

Terry Odendahl, PhD, is president and CEO of Global Greengrants Fund. Roy Young is the former executive director of Global Greengrants Fund and founder of Nature's Own. Gary Wockner, PhD, is an environmental activist, writer and consultant to Global Greengrants Fund.

Ramu NiCo pipe breaks, destroys food garden

The National, March 7th, 2016

MUD covered a section of the Usino Highway in Madang when a Ramu NiCo slurry pipe burst and sprayed its content 10 metres into the air. It burst last Wednesday morning at the Igiruwe area in Usino LLG. The welded pipes linked the Kurumbukari mine facility in Bundi and connected the processing plant at Basamuk refinery in Rai Coast. Ward councillor of the area, Moses Kuruwara, said the pipe was leaking since the previous Sunday and was reported to the Ramu NiCo management last Monday. Jacob Winis, a local from the area, said a woman saw the leakage. Winis said the pressure forced the red mud mixture of nickel and chromite deposits high up in the air and when it

rained down, the vegetation around the area was covered in mud. “The banana trees were destroyed, the grass on the side of the road laid flat,” Winis said.

The Ramu NiCo management told landowners along its 135 kilo metres slurry pipeline that the slurry at I guruwe village was not a “disaster”. The company described the leakage “unfortunate” at a challenging operation period and assured the landowners that there was no short and long-term environment impact on their food gardens, animals and human beings. “The slurry or ‘red mud’ that initially came out from the pipeline is pure mud and water with no chemical in it,” a statement from the management said “It is normally present in the environmen. “There is no acid in it and we ask people not to mislead the lanowners. “We maintain our stand and told people time and time again that what we transport along our 135km pipeline is non-toxic and does not contain any form of acid or foreign elements.” It however, urged the public to be careful on how they report the matter.

OK Tedi set for challenges

The National, March 4th, 2016

OK Tedi Mining Limited (OTML) says it is in good shape to meet the expected challenges this year and beyond. The state-owned mining company said this after it resumed operations at the Ok Tedi mine in Western on Tuesday, following a seven-month stoppage. The mine suspended operations on August 22 last year due to the drought conditions which made ships carrying critical supplies impassable up the Fly River coupled with the depressed copper price. A spokesperson told The National that costs were tightly managed during the temporary shutdown period with a number of large important projects completed, “which otherwise would have resulted in lost production for several months in 2017”. The spokesperson said copper price currently was around US\$2.10 (K6.24)/lb. “Reputable industry analysts forecast the price averaging US\$2.20 (K6.53)-US\$2.30 (K6.83/lb in 2016,” the spokesperson said. “OTML benefits from gold as a by-product and gold price typically benefits during periods of financial volatility. It is in good shape to meet the expected challenges in 2016 and beyond.”

Lihir Mine stakeholders make peace

Post-Courier, March 04, 2016

THE Lihir Mining Area Landowners (LMALA) and the Nimamar Local Level Government have signed a peace agreement. The New Ireland Province stakeholders have agreed to end the political issues and differences on the Lihir Sustainable Development Plan (LSDP) that had affected the delivery of goods and services, including mining benefits, to the people. Known as the “Kavieng Accord Principles”, the agreement signed in Kavieng last Saturday ends more than six years of disunity between them that affected the delivery of sustainable benefits and services to their people. Signatories to the agreement include the chairman of LMALA James Laketan and the president of Nimamar LLG Ambrose Silul, chairmen of the six major clans on the island and their witnesses, the New Ireland Provincial Government, the Mineral Resources Authority and Newcrest Mining Limited, operator of the Lihir Gold Mine. The signing of the Kavieng Accord Principles by LMALA and NLLG, the six major clans and their witnesses, paves the way for them to work together to review the MoA and the second integrated benefits package, which are well overdue for review. The Lihir operation on Niolam Island is 100 per cent owned and operated by Lihir Gold Limited.

Tolukuma report biased, says Siow

Post-Courier, March 04, 2016

BY JOE GURINA

THE developer of Tolukuma mine in Central Province says it will not deal with a landowner association which has no valid office bearers. Asidokona Mining Resource Limited executive director Vincent Siow said this in relation to threats to close the mine by Yulai Landowner Association. He was commenting on a statement by the association last week which said that Asidokona had ignored the local landowners' company and was bent on exploiting the locals. Mr Siow said the article had tarnished the owners, shareholders and the employees of Asidokona and Tolukuma Gold Mine Ltd. It was biased and did not verify the allegations levelled against the company, he added.

Mr Siow said that landowner George Gusi's term as chairman of Yulai Landowner Association had expired on August 4, 2014. He said the constitution of the association allows the office bearers to hold office for five years and there after the term expires. Mr Siow said Mr Gusi was still holding office through a court order obtained on August 4, 2009. "He is well aware of this fact and yet he continues to mislead the public without restraint and therefore we cannot deal with an organisation that has no valid management team," he said. The election of a new chairman is expected to be held next week and results made known later this month.

PNG could see US\$80m benefits from seabed mining

A new report says seabed mining could see Papua New Guinea reap economic benefits of US\$80 million over two years.

Radio New Zealand, 3 March 2016



Sampling copper under the sea Photo: Nautilus Minerals

The cost benefit analysis report, commissioned by the Pacific Community (formerly the Secretariat of the Pacific Community) and the European Union, aimed to provide information to Pacific countries about the impacts of seabed mining. The report looked into mining in three counties - seafloor massive sulphides in PNG, manganese nodules in the Cook Islands and cobalt-rich crusts in the Marshall Islands. The SPC's deep sea minerals project manager, Akuila Tawake, said the benefits of seabed mining in PNG and the Cooks would outweigh the costs, but not in the Marshall Islands. "Based on the report - the main net social benefit for mining in PNG for two years, around US\$80 million, and for mining manganese nodules in the Cook Islands for 20 years will bring a mean social

benefit of around US\$500 million for the government," Mr Tawake said. The report said if proper steps were taken to manage environmental risk, there would be a higher possibility of social benefits outweighing social costs in all three countries.

Court dismisses election petition in Western

Post-Courier, March 03, 2016

THE Electoral Commission needs to improve processes to save candidates from wasting time and money on election petitions, says Western Governor Ati Wabiro. Mr Wabiro said this yesterday after the National Court dismissed an election petition filed against him and the Electoral Commission by his predecessor Dr Bob Danaya. Dr Danaya had disputed the election of Mr Wabiro in the 2012 election with allegations that he had committed acts of bribery with the EC officials committed illegal practices when counting the votes. Handing down his decision yesterday at the Waigani Court House, Justice Derek Hartshorn said that the allegations of bribery were too vague; the names of those who were allegedly bribed were not disclosed as well as whether or not they actually voted and whom they voted for. Justice Hartshorn also dismissed allegations that officials from the Electoral Commission committed illegal practices when counting votes as the number of votes in question were not disclosed. He ordered that the election petition be dismissed and Dr Danaya to pay Mr Wabiro and the Electoral Commission's legal bills.

Five-star hotel owned by landowners: Mano

Post-Courier, March 03, 2016

THE Star Mountain Plaza is a flagship of the landowners and not a Government project, MRDC managing director Augustine Mano said yesterday. Mr Mano said the Government is not investing K1.5 billion in the project as reported but is acquiring a 20 per cent equity, that is equivalent to K222 million, for the Asia-Pacific Economic Co-operation Leaders' Summit in 2018 while another K94 million might be required if the other hotel investment takes place. He said the project investors are the Mineral Resource Star Mountains, the Mineral Resource Ok Tedi and Petroleum Resource Kutubu. He said the total cost for the Hilton Hotel, the Kutubu Convention Centre and the Kikori Tower is K1.1 billion, and does not include K450 million for the second phase which includes another hotel. He said the landowners also have the option to buy the 20 per cent State equity in the project after three years as their main aim is to invest in the project is to invest in the facilities like the convention centre and the Hilton Hotel for the APEC meetings in Port Moresby.

"The five-star hotel is the flagship of the landowners, the first ever major investment in the country by any landowner companies. "The State is only investing 20 per cent (K222 million) in the project, in stage one for the infrastructures to be used in the APEC meeting and also as an investment for the Government. The Prime Minister's statement is that the National Executive Council has approved commercial terms for State investment in Star Mountain Plaza project is correct as they are investing 20 per cent because it is important to host the APEC meeting," he said. He said the project will be cost plus, meaning that there is no room for variations and so far K100 million has been spent on detailed designed documents, foundation and early works has already being completed. Mr Mano said the development is three folds with the Kutubu Convention centre and performing art centre with a total of 3900 square metres, a 212-room hotel and 140 residential apartments with the Kikori Tower that would also consist of retail, restaurants and other amenities.

Hides seven days notice

March 03,2016, 04:30 pm

By *ANDREW ALPHONSE*

THE US\$20 billion PNG LNG project operations at Hides gas field in Hela province would be forced to shut down by next Friday. Angry landowner leaders back home in Hides, Tari and Komo yesterday gave the Prime Minister Peter O'Neill, newly appointed Petroleum and Energy Minister Ben Micah and the State seven day's notice as of today (Friday 04 March 2016) till next Friday to respond favorably to some of their demands which includes the immediate payment of the K19.28 million outstanding Hides PDL 1 business development grant (BDG). The demand was issued in a letter to PM O'Neill by the group led by team leader Moses Mekeya (Pina/Ola clan), Makape Katia (Kenamu), Chief Thomas Kuruku (Well head E,F,G & H owner), Jackson Waruni (Well head D owner), Isaac Hambuali and Olape Pele (Well head B & C owners) with over 100 signatures.

Mr Mekeya said copies of the letter has also been delivered to LNG project operator ExxonMobil (PNG) Ltd community affair's (CA) team headed by Patrick Mako last week at Hides and Hela provincial police commander Supt Michael Welly. Mr Mekeya said the landowners from Hides PDL 1 also demand that Minister Micah come to Hides within the week and discuss with them the States' failures in honoring all outstanding umbrella benefit sharing agreements (UBSA) and licensed based benefit sharing agreement (LBBSA) signed before the commencement of the project in 2009. Mr Mekeya said the genuine and destitute landowners back home in Hides are also fuming over how the good Petroleum Minister could find time to entertain all the so-called Port Moresby based fly- by- night con- artists, paper- landowners and brief- case brigades while marginalizing the silent majority of genuine landowners back home who are providing the project security.

Mr Mekeya said the landowners back home want Mr Micah to convene another similar meeting with the people back home either at Hides, Nogoli, Hides 4, Tari or Komo so that the people can be able to communicate with the government once and for all their concerns and demands especially on the failure by the State in meeting its obligations despite more than 120 shipments of LNG cargoes exported to date. The group said all their demands are in the petition papers and amongst many others, they demanded that the K19.28 BDG be paid to Hides Hiwa Block Landowners Association Inc and Tugupa Laitopo Palamanda Landowners Association Inc within these seven days, failing which they would have no option but to force the closure of the LNG operations in Hides by next Friday. An ExxonMobil CA employee confirmed receipt of the petition which has been forwarded to their head office in Port Moresby for perusal.

Government to launch extractive industry report

The National, March 2nd, 2016

By *GEDION TIMOTHY LAPAN*

The Government is expected to launch the first Papua New Guinea Extractive Industry Initiative Report by end of this month, according to PNG-EITI Secretariat. Head of the secretariat Lucas Alkan, pictured, told The National the PNG-ETI Report 2013, which was the first report to be produced by PNG, would be launched by Prime Minister Peter O'Neill. Alkan said the report was a culmination of sustained efforts and collaboration between the Government, extractive industries and civil society to deliver an informative public picture of the extractive sector in Papua New Guinea, its impact on the economy and management of revenues it generated.

He said current multi-stakeholder group included the Department of Treasury, Department of Mineral Policy and Geo-Hazard Managements, Department of Petroleum and Energy, Ministerial Resource Authority, Department of National Planning, Department of Finance, Business Against Cor-

ruption Alliance, Consultative Implementation and Monitoring Council, Institute of National Affairs, the Papua New Guinea Council of Churches, Transparency International PNG, Papua New Guinea Mining Watch Group Association, Eco forestry Forum, Papua New Guinea Chamber of Mines and Petroleum, Barrick Niugini Ltd, Morobe Mining Joint Venture, Newcrest, ExxonMobil PNG and Oil Search Ltd.

“This is Papua New Guinea’s first report as a candidate country under the Extractive Industries Transparency Initiative (EITI),” Alkan said. “In accordance with the EITI standard, this report has been guided by a multi-stakeholder group (MSG) comprising representatives of government, industry and civil society, and has been prepared by an independent administrator.” He said the report covered calendar year of 2013 and encompassed large-scale mining and oil and gas and how they operated. He said the Government applied for EITI candidacy in 2013 and was accepted as a candidate country in March 2014 and this first report is one of the requirement of the country being entering into a fully pledged member state of the EITI group. Alkan commended the multi-stakeholder group for the job they did in delivering the report on time and said he is looking forward to a more comprehensive report with a wide range of stakeholders. He said the report would tell how we perform as a country in the extractive industry as a member of the group.

Link: http://www.inapng.com/pdf_files/PNG%20EITI%20FINAL%20110216.pdf

State to invest K1.5billion in five-star hotel

Post-Courier, March 02, 2016

CABINET has approved the commercial terms for the State’s participation and investment in the K1.5 billion Star Mountain Plaza project in Port Moresby. Prime Minister Peter O’Neill said the project and its facilities are 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 tourism. He said the State will invest in the project through a special purpose State-owned company; APEC Infrastructure Investment Corporation. Mr O’Neill said stage one of the project is expected to cost around K1.1 billion while the second stage, which will include a second hotel, will cost a further K450 million. He said the State will contribute K316 million - K222 million for stage one and K94 million for stage two, towards the realisation of this aspiration. It will buy 20 per cent of the shares by investing K100 million as its first payment towards the project next month through either its own lenders or the annual budget.

He 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 Limited. When stage one is completed, it will have a convention centre called the Kutubu Convention Centre, a parking space for 441 cars and the 212-room Hilton Hotel. "It will be developed in three stages; the first include a convention and performing arts centre which totals 3900 square metres of convention and meeting space over four levels, a restaurant, cafe 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. "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,"Mr O’Neill said.

Court confirms Western MP Kondra sacking

Post-Courier, March 02, 2016

BY ADAM MERA

THE National Court yesterday confirmed the dismissal of Mr Boka Kondra as North Fly MP on charges of misapplication of public money. Mr Kondra was dismissed from office on May 29 last year after a leadership tribunal found him guilty of misapplying K238,442.92 that belongs to the North Fly district. The leadership tribunal, which comprised Justice Salatiel Lenalia, magistrate Ignatius Kurei and magistrate Rosie Johnson, ruled that Kondra was guilty of six allegations of misconduct in office on April 27, last year. The monies Kondra used for his own purposes are from North Fly District Services Improvement Program (DSIP) and District Services Grant Funds. The tribunal in its findings said Kondra used K85,276 from the two accounts for rentals on an office space he occupies, K134,966.92 for rentals on his accommodation and K18,200 to pay an outstanding debt on a hire car company for motor vehicles he used for his 2012 election campaign.

Immediately following his dismissal, the ousted MP filed for leave for a judicial review of the tribunal's decision which was granted on July 16 last year. According to Justice Colin Makail who presided over the judicial review, Kondra went ahead and breached the leadership code despite being allocated K193,846 for the purposes, other than the payments for hire cars. Justice Makail said of the six allegations, three alleged that Kondra intentionally misapplied the money and the tribunal found them to be true. The other two allegations are that, because of the first three allegations, he failed to carry out his duties imposed by section 27 (1) of the Constitution therefore demeaned his office as a leader and in doing so, allowed his personal integrity to be called into question. The last allegation was that he failed to carry out his obligations imposed by section 27 (5) of the constitution and that is he used his own name for his personal gain.

PNG's Ok Tedi Mine Reopens After 7-Month Suspension

Copper, gold mine is major contributor to economy

By Rosalyn Albaniel

PORT MORESBY, Papua New Guinea (PNG Post-Courier, March 2, 2016) – Mine operations at OK Tedi in Western Province, Papua New Guinea's largest mine, has resumed following statutory approval from the Mineral Resources Authority. The PNG Chamber of Mines and Petroleum said commencement of operations was welcome news. It said that being a major contributor to the PNG economy, its resumption was good news not just for Western Province but the country at large. "The decision by the mine's board and management to suspend operations last year when the El Nino drought commenced was a decisive move and was exactly the right thing to do, based on the 1997 experience. "The temporary closure has given management an excellent opportunity to restructure the whole operation, as well as do some major maintenance programs. "With a much leaner and meaner structure, the Chamber believes that the mine can be profitable by the end of the year, even at current copper/gold prices," the chamber said.

Ok Tedi's commencement yesterday ended the seven-month suspension of operations due to the dry weather conditions which had affected its hydro-electricity power and transport of critical supply and copper concentrate on the Fly River. MRA managing director Phillip Samar said that MRA was pleased at the outcome of the statutory inspections that had been done to verify safety management systems at the mine, the mill and the river port sites, including Kiunga. "We commend OTML for ensuring that its safety management systems are in place to meet the MRAs Safety Inspections rigorous requirements. "As the operator of the mine, OTML is now directly responsible for ensuring the continued maintenance of the mines safety management system going forward," Mr Samar said. Ok Tedi Mining Limited's managing director and chief executive officer Peter Graham yesterday

welcomed back on site its 800 workers as operations progressively start, adding the numbers would ramp up to full complement by mid-March.

Miner starts project awareness

The National, March 1st, 2016

WITH the Solawara 1 project scheduled to start in the first quarter of 2018, Nautilus Minerals has kick-started awareness exercises in maritime communities in East New Britain. Nautilus is the first company to explore ocean floor for massive sulphide deposits. It was granted the first mining lease for such deposits at the Solwara 1 prospect off the west coast of Namatanai in New Ireland. An environmental permit was issued for Nautilus to start production in 2018 through to 2021. Last Friday a team comprising of officers from Nautilus Minerals, Mineral Resource Authority (MRA) and provincial technical team paid a courtesy visit to respective local level government managers and LLG presidents at Duke of York Island in Kokopo and Watom Island in Rabaul district to inform them of vigorous awareness activities set to commence in April and May. The aim of the visit was to inform communities on the progress of the project and deployment of production tools into the country. The visit by the team was also to identify community impact projects that the company could possibly provide assistance especially in improving water sanitation projects in schools. Team leader of the provincial technical team and deputy administrator, Levi Mano commended the visit by the Nautilus and MRA team saying, it was important to put in place interventions and make communities more aware of the project and for the company to fulfil its community obligations.

EU and SPC peddling dangerous misinformation



The European Union and SPC have published a new report [see below] claiming the money to be made from experimental seabed mining in PNG far outweighs the costs. Unfortunately the expensive report:

1. Fails to put a monetary value on many of the potential environmental costs
2. Fails to deal with the fact billions of dollars in mining revenues have already FAILED to improve the lives of ordinary people in PNG
3. Fails to acknowledge the past failure of PNG authorities to manage land based mining and its terrible social and environmental impacts

4. Assumes, totally against the evidence, that any environmental damage will be fixed by the mining company

The Report has been written by Cardno, an Australian firm who also work for the Mining Industry, including Newcrest and Harmony Gold in PNG, and AusAID!

Good to see no potential conflicts of interest there!

Report [4.4 MB]: <https://ramumine.files.wordpress.com/2016/03/cardno-seabed-mining-report.pdf>

China Mulls Ocean-Based Nuclear Power Plants

BreakBulk, February 29, 2016



Photo: China's Daya Bay nuclear power plant is land-based, but future plants may be offshore

Heavy lift professionals could face dramatically different and unique challenges if China's nuclear power industry follows through with a top official's proposal to build the world's first nuclear power plant at sea. Xu Dazhe, director of the China Atomic Energy Authority, who also serves as head of the nation's space agency, proposed the ocean-based power plant idea Jan. 27, according to state media. The plan calls for building platforms at sea that can support relatively small nuclear power plants to provide electricity for seabed mining operations in deep waters and desalination plants near the nation's shoreline.

Shipbuilding industry officials say they support the plan, which is already the subject of major research initiatives by science institutes linked to China National Offshore Oil Corp. and the state-run nuclear industry. Under the plan, according to media reports, the project would include building floating as well as submersible power plant platforms. The latter would be deployed in areas where stormy seas are prevalent. The report gave no timetable for launching the project. China is building dozens of land-based nuclear power plants and marketing its technology overseas. U.S.-based nuclear power plant builder Westinghouse proposed building offshore nuclear power stations in the 1970s, including a plant near the beaches of Atlantic City, New Jersey. But the plan was scrapped after the Three Mile Island plant disaster in 1979.

Cost benefit analysis of deep sea mining in Pacific released

SPC-EU Deep Sea Minerals Project, 29 February 2016

Various scenarios for mining deep sea minerals in the waters of three Pacific Island countries are assessed in a cost benefit analysis report commissioned by the Pacific Community (SPC) and the European Union. The report aims to assist Pacific Island countries with their decision making concerning deep sea minerals and provide information about the potential magnitude of the impacts of deep sea mining. The assessment, conducted by Cardno between February and October 2015, offers decision-makers insights into the potential constraints and challenges to achieving positive net benefits if deep sea minerals mining were to occur under current circumstances.

It is part of the European Union-supported Deep Sea Minerals Project, implemented by SPC, aimed at improving the governance and management of the deep-sea minerals resources of 15 Pacific states. Based on the resource potential of three countries, the analysis considers the monetary value of all aspects of mining Seafloor Massive Sulphides in Papua New Guinea; Manganese Nodules in Cook Islands; and Cobalt-rich Crusts in Republic of the Marshall Islands. “This cost-benefit analysis was initiated in consultation with Pacific Island nations to provide a better understanding of the costs and benefits likely to be associated with deep sea mining,” SPC’s Deep Sea Minerals Project Manager, Akuila Tawake, said. “It’s all about helping Pacific nations make informed decisions should they wish to engage in this new industry,” he said.

Notably, the report found that seafloor massive sulphide mining in Papua New Guinea has benefits that significantly outweigh the costs. Also, it revealed that a mining scenario in the Cook Islands (where four metals are recovered and the miner owns the operation and the processing facility in a country other than Cook Islands) has the highest net benefits. However, the report states that crust-mining in the Marshall Islands, under the two scenarios considered, is currently not economically viable due to present metal prices, expected ore recovery, and the cost of technology. The report concludes that as long as proper steps are taken to manage the wealth in the long-term and to transfer the environmental risk from the people of the host country to the mining company, there is a higher possibility of the social benefits outweighing the social costs. Despite the study’s limited focus on three countries, it provides important findings and considerations that are applicable to other Pacific nations with similar deep sea mineral resources, Mr Tawake said.