Press review: Mining in the South Pacific

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Compilation:

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

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Abbreviations in common use:

BCL: Bougainville Copper Limited

LNG: Liquid Natural Gas

PIR: Pacific Islands Report

PNG: Papua New Guinea

Websites:

Radio New Zealand: http://www.radionz.co.nz/international

PNG Post-Courier: http://postcourier.com.pg/

PNG National: http://www.thenational.com.pg/

Ramu nickel mine: Scientists set to study pollution

Radio New Zealand, 31 October 2019

The governor of Papua New Guinea's Madang province has invited the government to join a team of European scientists set to study pollution around the Ramu nickel mine. The scientists have been invited by the Lutheran Church to test water and soil quality, as well as plants, animals and marine life, the *National* newspaper reports. The governor, Peter Yama, said the Environment Protection Authority, university researchers, government scientists and mine officials should join the scientists. The provincial government has banned fishing and the consumption of fish in the area after a slurry spill in August from the mine's refinery. Scientific analysis had found poisonous materials in the water, marine life, soil and crops, Mr Yama said. The mine was closed last week by the government but allowed to reopen after rectifying problems identified by PNG's minerals authority.

Chinese redevelopment of Solomon Islands' Gold Ridge mine dubbed 'way over the top' ABC News, 30 October 2019



PHOTO: The Gold Ridge mine has a long and chequered history.

Key points:

- The deal follows a month after the Solomon Islands switched diplomatic ties from Taiwan to Beijing
- The Solomon Islands will not own the new infrastructure
- The former Australian-listed company that owned the mine sold it to local landowners for \$100 in 2015

Chinese companies will build and control power and port facilities, roads, rail and bridges on an island within the Solomon Islands, as part of an \$825 million deal to revive an abandoned gold mine, according to new contract details. The gold project agreement, described by Chinese ambassador Xue Bing as an "early harvest" of the new diplomatic tie-up between Beijing and Honiara, gives Chinese interests an increased foothold in the Pacific, long under the influence of the United States and its allies. While locals initially expressed fears the Gold Ridge mine deal would saddle the island nation with debt, those attending a weekend ceremony at the mine site were told the Solomons would not pay for the project infrastructure. Nor will the country own the infrastructure. A company majority-owned by Hong Kong-listed Wanguo International Mining, which has the project rights, will retain ownership of any project related-infrastructure, according to the project terms presented to attendees.

Wanguo has contracted state-owned China State Railway Group \$825 million to complete the works over several phases. The previous owner, Australian-listed St. Barbara, sold the mine for a nominal \$100 to a landowner group in 2015, and that group went on to secure interest from Australian-based Chinese company AXF Resources, and then Wanguo. Those attending the ceremony at the mine site, located about 30km south of Honiara, were told the large contract would involve a significant infrastructure component beyond the immediate mine site. "Only China, proceeding from the friendship and wellbeing of the local people, is ready to overcome all obstacles to undertake this project by planning to build roads, bridges mining facilities and a hydropower station," Mr Xue said, according to the recording. A separate announcement from China Rail in September also said the contract included port work.

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The infrastructure will be built in and around Honiara on the island of Guadalcanal, a strategic Pacific location that saw fierce fighting in World War II. While the Solomons government, China Rail and the project operators have denied any political involvement in the mining deal, it was presented at the project ceremony as an example of what the new relationship between China and Solomons can deliver. The agreement was announced in mid-September, coinciding with a decision by the Solomons Government to switch diplomatic ties from Taiwan to Beijing, angering the United States in the process. "This is not only a new beginning of the Gold Ridge mine, but also a very important early harvest of the friendly cooperation between China and Solomon Islands which established diplomatic relations just 35 days ago," said Mr Xue, who is the Chinese ambassador to Papua New Guinea. Solomons landowners and politicians, Chinese officials, and representatives of China Rail and Wanguo were at the ceremony, said a source who attended.

Solomon representatives were repeatedly reassured the Pacific nation would not be subjected to a "debt-trap", an allegation used against China by the United States. Wanguo did not immediately respond to questions. The Solomons Government, which did not immediately respond to questions on Wednesday, has previously said it was a private sector deal and was not privy to the commercial arrangements. Solomons opposition lawmaker Peter Kenilorea said the Gold Ridge agreement was opaque and its terms needed to be better explained. The size of the contract has perplexed mining analysts, given past private operators have struggled to make the mine profitable. Independent Australian-based mining analyst Peter Strachan said the agreement was "way over the top" for a relatively low-grade gold project with modest reserves. "There has to be some back story on this," said Mr Strachan, who has visited the Guadalcanal mine site. The troubled Gold Ridge mine last operated in 2014, before severe floods halted production.

At its peak it was the source of 30 per cent of GDP in the Solomons, which is largely reliant on timber exports. Solomons GDP was at \$1.4 billion last year, according to World Bank data, making it one of the world's smallest economies. The project owners have not released an anticipated date the project will restart. Walton Naezon, chairman of the Gold Ridge landowner group, said the Gold Ridge deal was a commercial arrangement with no political input. He said the project's two other equity owners, Wanguo and AXF Resources, were raising \$275 million to pay China Rail to bring the mine back into production. "The balance is the second phase to be approved, which includes things like underground work," Mr Naezon said, referring to the remainder of the \$825 million contract. "China Rail will bring their own machines. They will employ 70 per cent local labour and the rest will be their own staff."

Marine life lacks protection

By DALE LUMA, October 30, 2019, The National Business

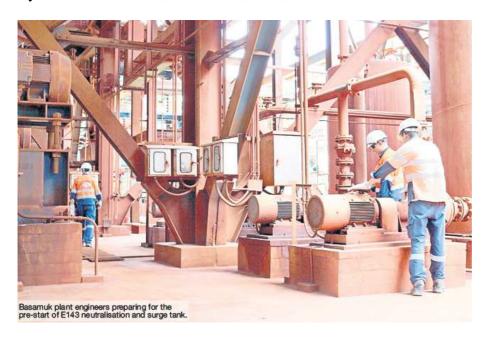
RESOURCE companies are not held accountable for damage caused to the ocean because there is no such policy available, Department of Justice and Attorney-General secretary Dr Eric Kwa says. Kwa said this during the opening of the second National Oceans Forum yesterday in Port Moresby. He said complaints such as damage from mine slurry spills and logging wastes that affected marine life could not be properly actioned because there was no specific policy response for the government to use against companies. "We don't have the policy in place so we cannot blame a company operating within a legal framework that has been given permission within the regulatory framework," he said.

"If there is a discharge from a mining company into the sea, we do not have the response for the government to come in and say you cannot do this and that. "We also do not have the policy to respond to damage caused to the reefs and swamps due to transportation of logs to the coast to log ponds from large scale logging operations." Kwa said in order for proper actions to be taken by the

government to properly come up against companies, there should be a proper guiding framework put in place. He said PNG was surrounded by ocean and impacts of what happened on land would eventually end up in the ocean so a policy was needed to protect the ocean. "Hopefully this issues are solved with the implementation of the new National Oceans Policy that will be implemented next year," he said.

Miner gives assurance

By JEFFREY ELAPA, October 30, 2019, The National Main Stories



THE management of the Ramu nickel and cobalt project in Madang has assured the State that it will ensure conditions are met within six months after it was given the go-ahead to resume operations on Friday. Mineral Resource Authority (MRA) mine inspectors approved the resumption with six conditions to be complied with in six months. The management said all conditions would be met and there would be no more such incidents. The Basamuk plant was shut down following an order by the MRA mines' inspectorate on Oct 18 with 16 recommendations to fix slurry spills and safety. However, the management said following remedial actions by the workers, the areas of concern were rectified and it was now operating as normal. Ramu NiCo management said it acknowledged MRA's mines inspectorate for its guidance over the week to rectify defects. "As a genuine investor, we try our best to comply and maintain the highest safety standards within the laws," Ramu NiCo said in statement. "For the mines inspectorate to give us permission to operate after a week of temporary shutdown demonstrates the trust they have in us that we have built over the last 10 years." and we highly value that."

Madang Locals call for Third Independent investigation in Ramu Mine Spill NBC News, ONE PNG, 29 October 2019

Locals in Madang Province affected by Ramu Nickel's Basamuk refinery spill are calling for a third independent investigation into the spill. A first investigation was conducted by the Conservation Environment and Protection Authority, and the second by an Oil Spill consultant from Switzerland engaged by the Madang Provincial Government. Prime Minister James Marape recently announced in Parliament, a third investigation team will be put together headed by Deputy Prime Minister Davis-Steven to look further into the spill. Up until today, the locals are left in the dark, as to what has become of this team and what their next course of action will be. Local, Thomas Warr told NBC

News from Madang, this is a very serious issue and must not be taken lightly by the Government as the people have stopped fishing and swimming- an exercise that has severely impacted on their daily livelihoods.

"We are scattered along the coast – it's not one small village only affected therefore if anything happens at Basamuk, we all have no control over it. "So something must be done immediately to address this. "There must be some kind of compensation or something to keep the locals going while awaiting further reports," Mr. Warr said. Meantime, there is a lot of confusion and anxiety amongst the locals in the Raicoast and Madang districts following reports of the re-opening of the Ramu Nickel Mine by the Mineral Resources Authority recently. Mr. Thomas Warr said though being given the green light to go ahead and fish and swim again, they have not done so and that they have completely lost trust in the Government departments supposed to protect the people and environment.

Mr. Warr said the villagers have been given conflicting advice from these different Government organizations involved in the investigations into the mine spill in August. A 200-000 litres of toxic slurry had spilled into the sea, from the Ramu Nickel Mine's Basamuk processing plant causing the sea color to change and allegedly contributing to the death of marine creatures a month later. Approximately 30-000 people from the immediate areas of Astrolabe Bay to the border of Morobe are estimated to be impacted by this spill and the ultimate ban on fish consumption.

Yama invites interested parties to study pollution

October 29, 2019, The National Main Stories

MADANG Governor Peter Yama, pictured, is inviting the Government to join a team of scientists arriving from Europe soon to conduct a study on the pollution to the environment in Madang. He said the team from Europe was invited by the Lutheran church to conduct tests on the water quality, marine life, soil, plants and animal life in the Ramu NiCo mine affected areas. "I am calling on CE-PA (Conservation Environment Protection Authority), university research teams, government scientists, the Ramu Nickel mine team and other interested people to do a joint sampling and scientific laboratory testing on the pollution," he said. The provincial government has banned fishing and the consumption of fish because a scientific report had confirmed that a high level of toxic material was found in the water.

The report blamed the waste and slurry leakage and spillage from the mine. But the Ramu NiCo mine management said the fish ban imposed on fishing, selling and consumption of fish had nothing at all to do with the mine closure. The Ramu NiCo management said it was related to safety issues which were had been rectified. Yama rubbished a statement that the water and fish were safe for consumption from the Minister for Environment, Conservation and Climate Change Geoffery Kama. Yama said according to scientific analysis, it had indicated a high tonicity of poisonous materials in the water, marine life, soil, crops and plants.

Controversial PNG mine reopens but locals unhappy

Benjamin Robinson-Drawbridge, Radio New Zealand, 29 October 2019

Two hundred thousand litres of toxic slurry spilled into the ocean in August from the mine's Basamuk refinery, turning the sea red. The *Post Courier* reported the Mineral Resources Authority had granted permission for the miner to resume operations last Friday less than a week after being shut down by the government. The authority said its inspectors found the miner had rectified defects and put in place measures to ensure any water from the processing plant was captured and pumped

into its tailings treatment facility. A fishing ban remains in place on the Rai Coast where locals said large marine mammals and fish had washed up dead following the spill.

A community health worker from the Saidor health centre, Lynette Dawo, said those included a dolphin, a turtle, a dugong and a school of tuna. "We encountered a very big dolphin. It just washed up on the shore to our own beach. A very big one. They buried it and reported it to the marine people. They came and told them to dig it up and when they dug it up they just cut off the intestines and took it away. But after all they didn't even report to us and tell us what will happen," Ms Dawo said. "And then we had a big turtle that died and washed up to the shore. And then another dugong died, washed up to the shore. And then we had about 27 tuna, the very big ones, they all died same time and just washed up to the shore and people got them and buried them," she said.



Coastal housing in Madang province. Photo: RNZ/Johnny Blades

Rai Coast locals were struggling without sustenance from the ocean, Ms Dawo said. "Now people are suffering, no fish to eat. Our main source of protein we getting from the sea but they stopped it. People are all suffering especially those ones who live on the coast who mainly live on fish," she said. Also from Saidor, Norman Nayak said without the ability to catch fish, Rai Coast fishermen were out of pocket. "People along the coast depend heavily on fish. They sell to the markets, they harvest fish for daily meals," Mr Nayak said. "People are scared. They feel that to visit the sea or get something out of the sea is very dangerous, very risky."

The area has been declared safe for swimming but Ms Dawo said fear of the sea persisted after children developed skin irritations while bathing during the spill. "Kids went down to the sea to have their washing. They were touched by this acid or poison from the sea and they developed a skin itchiness. Now we told all the kids not to go and wash in the sea," she said. Other swimmers had been more severely affected, Ms Dawo claimed. "Three young girls went diving in the sea and when they came out they were screaming for their skin itchiness all over. People rushed over and told them to go the river and wash with fresh water. Later on blisters formed on their skin."

The mine is operated by MCC (Metallurgical Corporation of China) and majority owned by MCC Ramu NiCo Ltd, which told the <u>Post Courier</u> it was grateful to the mining authority for its guidance to rectify faults and for allowing it to resume operations at the processing plant. "For the mines inspectorate to give us permission to operate after a week of temporary shutdown demonstrates the trust they have in us that we have built over the last 10 years," the miner said. "We want to tell the people of Madang and PNG that Ramu NiCo is a reputable investor in PNG and remains committed to share the benefits from the project with every stakeholder, including the national government."

But according to Ms Dawo and Mr Nayak, benefits had not been shared with people living around the mine.



Large-scale and small-scale fishing in the waters off Madang in Papua New Guinea. Photo: RNZI / Johnny Blades

"We were all excited thinking it would be a change to bring development into the area. We were thinking that they would help constructing bridges and making improvement in the infrastructure there but nothing has happened so far," Mr Nayak said. "Recently with the spill, seeing the ocean getting red, people were so scared and shouting 'government has to put a stop to this mining'. It has brought nothing, no development to the locals," he said. Ms Dawo said people had become so frustrated they could retaliate against the miner. "This company is one of the greediest companies, doesn't provide anything good for the people. There's no roads. Nothing good is done. There's primary schools, we have two secondary high schools here but they don't even support anything. Our health centre is run down, they are doing nothing. "That's one of the greediest companies working here in Papua New Guinea."

Ramu Nico Resumes Operations In Madang

Post Courier, October 29, 2019



The Ramu Nickel project is back in operation after being shut down for a week. This comes after the Mineral Resources Authority (MRA), granted permission for Ramu NiCo Management (MCC)

Limited, to resume operation of the neutralisation and surge tanks at E143 area of the Basamuk processing plant last week Friday. This permission effectively allows the recommencement of operations of the Basamuk processing plant according to a media release by MRA yesterday. The permission was given following satisfactory site verifications by mines inspectors on-site who have been monitoring and ensuring that the company was in compliance with statutory orders, given to rectify the defects as a condition of recommencing operations following the shutdown. After the company shut down its operations on October 21, inspectors went no site on October 23 to inspect remedial works and compliance. The inspection ended on Friday October 25, when they granted permission to re-commence operations after observing satisfactory compliance to critical recommendations.

"There are other outstanding remedial measures which were not considered as part of the E143 area, but overall safety measures for the Basamuk processing plant. Such include, competency training for workers and regular risk assessment and risk management trainings. "Furthermore, measures are in place to ensure any storm water or process water from the processing plant area are captured in the retention sumps and pumped into the tailings treatment and DSTP facilities," MRA said. "The inspectorate branch will continue to monitor the performance of the company as they had always been doing. Mine sites are some of the most hazardous and high-risk operational environments. The MRA can only do so much to minimise and mitigate incidences from happening but it all comes down to personal attitudes of workers towards safety, mining companies' commitment to safety, and cooperation between operators and the inspectorate."

Ramu NiCo Management (MCC) Ltd acnowledged MRA mines inspectorate for their guidance over the week to rectify the identified defects and granted order for the resumption of Basamuk processing plant. "As a genuine investor, we try out best to comply and maintain the highest safety standards within the laws," Ramu Nico said. "For mines inspectorate to give us permission to operate after a week of temporary shut-down demonstrates the trust they have in us that we have built over the last ten years and we highly value that. "We want to tell the people of Madang and PNG that Ramu NiCo is a reputable investor in PNG and remains committed to share the benefits from the Project with every stakeholder, including the national government. "We thank our employees who have worked very hard with MRA to rectify all the remedial works. "We thank our stakeholders who supported us during this hard time. We thank the national government and Madang provincial government to support us."

System troubling revenue

October 28, 2019, The National Business

REVENUE from the mining and petroleum sector dropped recently due to commercial agreements between resource companies and the Government among other reasons, Institute of National Affairs director Paul Barker says. Barker said from 2010, the government was getting about K2 billion in revenue from mining and petroleum taxes which was about 20 per cent of the revenue coming from the mining and petroleum sector. "That dropped away from 2010 to 2016 to being less than two per cent," he said. He said the government thought it would make extra revenue from all those big resource projects like LNG coming on stream. However, the fall of commodity prices, particularly oil and gas, copper, and gold and agreements with some resource companies affected revenue. "Because of the agreements that the government had with those resource companies, which allowed big gold miners to depreciate and to not pay taxes during certain years so that they can have advance depreciation and because of having 10 year tax holidays like the Ramu Nico project," he said.

"So the government was banking on a lot of revenue, but it was not going to get it, partly because of the low commodity prices and partly because of the tax arrangements that the government had with those companies. "It was not that the companies are breaking the law by not paying taxes although in some sectors some companies are doing illegal tax avoidance, but by far, large corporate companies are following the law but it's the agreements with the government that allows that," Barker said. "So as a result of that, you could see a big drop in the level of revenue coming in from the resource sector. "And by far, the major component of tax revenue that the government is getting comes from the salary and wages tax, and that is followed by companies' taxes particularly in goods and services (GST) tax." Barker said some of the resource projects should be pumping more revenue to the state next year.

Mine 'not completely shut'

October 28, 2019, The National Main Stories

THE management of a mine forced to close last week by the Government for not complying with rules has assured stakeholders it is not completely shut down. Ramu NiCo Management (MCC) Ltd, the multi-million kina nickel and cobalt developer in Madang, said in a statement it was "closed indefinitely to comply with safety matters" but not completely shut down and should be back in operation soon. The company confirmed that the Mine's Inspectorate with the Mineral Resources Authority had issued two orders for remedial measures following a slurry spillage on August 24, 2019 and safety issues concerning a contractor. "On Friday October 18, 2019, MRA issued an instruction for an indefinite shutdown of E143 Neutralisation Tank at Basamuk Refinery, which causes all operation to stop because of its critical importance," the company statement said.

"Most remedial works have been completed successfully from the remedial measures but MRA is not satisfied with the remedial work done on the critical part of the Basamuk Refinery Operation, E143 Neutralisation Tank. "The slurry that comes from Kurumbukari mine must go through this tank. And once shut down for remedial work, it inevitably affects our operation. This is the critical area." The company said it would work with the MRA and other statutory bodies to ensure all requirements were met to avoid the recurrence of similar safety issues. "We have committed our time, efforts and resources in ensuring that we comply with all the remedies within the given time. It is normal that we may not have met all MRA's requirements so we will work closely with MRA to get these done," Ramu NiCo said. Operation at the Kurumbukari Mine is unaffected and other plants at Basamuk are in operation except for the E143 Neutralisation Tank.

PNG mine operators must comply with safety rules - PM

Radio New Zealand on 28 October 2019

Papua New Guinea's major mine operators have been warned by the prime minister to comply with safety and operating standards. James Marape issued the warning after the government confirmed the temporary closure of the multi-billion kina Ramu Nickel mine in Madang province. Mr Marape told *NBC* the shutdown would only be temporary pending further investigations over the recent spill of mine slurry off Madang's coast. The Conservation and Environmental Protection Authority has confirmed that 200,000 litres of toxic slurry spilt into the sea from the mine's refinery in August. The spill turned the sea red in Basamuk Bay and was linked by locals to numerous health problems. The Madang provincial administration has put a temporary ban on catching and consumption of fish. Mr Marape said the company's executives were expected to meet with his government to find an amicable solution.

Troubled Gold Mine Sold to Local Landowner Company for A\$100 Relaunched in Solomon Islands. Sputnik News, 27 October 2019



Photo: Flickr/Jenny Scott

The troubled Gold Ridge mine in the Solomon Islands changed ownership multiple times over the years and was shut down by its last owner in 2015 after severe flash flooding. The Gold Ridge goldmine in the Solomon Islands was officially relaunched Sunday in Central Guadalcanal, reports *Radio New Zealand*. The mine which is currently the property of a local landowning company, Gold Ridge Community Investment Limited, is less than an hour's drive from Honiara across the Guadalcanal Plains and has stood dormant for the past three years. It is now being redeveloped by the Chinese miner Wanguo International working in partnership with Chinese owned Australian developer AXF Group and local landowners in Central Guadalcanal.

Speaking to *RNZ* Pacific earlier in the week, a spokesperson for Gold Ridge, Allen Wang, applauded the new contract for the reconstruction of the mine by the China Railway International Group, emphasizing he believed China Railway "had the mining experience, construction expertise and Pacific experience to make a great contribution to the development of a world class mine in Solomon Islands". The contract signed by Honiara and China Railways involves two major phases. The first phase includes an exterior mountain-stripping project followed by the installation of interior mining equipment and facilities. The second phase includes the construction of roads, bridges, and a nearby reservoir along with dock facilities and a hydropower station. The mine on central Guadalcanal, south-east of the capital Honiara, began operation in 1998, and at the height of its production in 2012 accounted for 20 percent of the country's entire gross domestic product. However, a succession of foreign owners and intermittent periods of closure due to civil unrest and environmental problems left a troubled legacy.

After Cyclone Ita and torrential rain damaged infrastructure and forced the mine to shut down in 2014, its Australian owner, Santa Barbara, sold the venture and its legal liability a year later to Gold Ridge Community Investment Ltd, a local landowner company for AU\$100. Shortly after St Barbara sold the mine, the Solomon Islands Government declared it a disaster area when a tropical cyclone filled the dam to capacity. On 12 September 2019, the mine signed a deal with China Railway Group Limited of China worth US\$825 million to build and lease a railway system and mining service station. China Railway International announced the deal on its website's notice board on the date it was signed, with parent company China Railway Group announcing it on 16 September, the day the Solomon Islands and Taiwan officially broke ties. The contract is to last until March 2034.

Gold Ridge gold mine relaunched in Solomon Islands

Radio New Zealand on 26 October 2019



Guests at the ground breaking for the Gold Ridge Mine in Solomon Islands. Saturday 26 October 2019 Photo: Benjamin Afuga

The Gold Ridge goldmine in Solomon Islands was officially relaunched today in Central Guadalcanal. The troubled mine which has changed ownership multiple times over the years has been closed since 2015 when its last owner Australian miner St Barbara was forced to shut it down after severe flash flooding. It is now being redeveloped by the Chinese miner Wanguo International working in partnership with Chinese owned Australian developer AXF Group and local landowners in Central Guadalcanal. Speaking to RNZ Pacific earlier in the week Gold Ridge spokesperson Allen Wang said full details of a new contract for the reconstruction of the mine by the China Railway International Group was to be announced during today's ground-breaking ceremony. Mr Wang said he believed China Railway had the mining experience, construction expertise and Pacific experience to make a great contribution to the development of a world class mine in Solomon Islands.

Chinese-owned Ramu nickel plant in PNG shut down after toxic slurry spill Bethanie Harriman, Pacific Beat, ABC News, 25 October 2019



PHOTO: The spill on August 24 turned the water in Basamuk Bay bright red and stained the shoreline. (Supplied: Nigel Uyam)

Key points:

- The plant will remain closed until the Chinese operator fixes several issues
- It spilled around 80,000 litres of slurry, turning the bay bright red
- Tests on the environmental damage have given mixed results

Papua New Guinean authorities have shut down a Chinese-owned nickel processing plant for breaching safety and mining laws, after the operator spilled tens of thousands of litres of toxic slurry into a bay in August. PNG's Mineral Resources Authority (MRA) chose to take punitive action against the Ramu Nico plant, which is majority owned by the Metallurgical Corporation of China (MCC), after it failed to fix problems the authority identified while investigating the spill. These included incompetency among operators at the plant in PNG's Madang province, problems with the spillage containment system, and inadequate equipment maintenance. The authority said the processing facility would not be permitted to reopen until these issues were fixed — effectively halting all of Ramu Nico's mining operations for the time being. "They were given sixteen recommendations to rectify, and apparently six weeks down the line, we found that the operator has failed," MRA managing director Jerry Garry said.



PHOTO: Two reports into the environmental impact of the spill have turned up conflicting results. (Supplied: Nigel Uyam)

On August 24, a pump failure at the mine's Basamuk Bay processing plant saw about 200,000 litres of toxic slurry spill out, with up to 80,000 litres making its way into the ocean — turning the water bright red, and staining the nearby shoreline. While local officials have banned the sale of fish caught in the province following the spill, <u>investigations into the resulting environmental damage have turned back markedly different results</u>. One scientific report commissioned by the provincial government said there was evidence of widespread contamination, however PNG's environmental authority has said it found heavy metal contamination was within acceptable levels. 'They didn't think of our lives'. A spokesman for the nickel mine's Chinese operator confirmed the shutdown order, and said the company was considering its legal options, Reuters reported. Ramu Nico has previously apologised for the slurry spill, but has denied it caused any serious environmental damage.

While local villagers were happy to hear of the Ramu Nico closure, they told the ABC's Pacific Beat program they didn't think it went far enough, and called on the PNG Government to slap heavy penalties on the company. Louis Medaing, whose village is near the nickel processing plant, said the facility should have been closed straight after the spill, which some in the community have linked to health problems and fish kills. "They didn't think of our lives, the Government has now

realised and ordered the mine to be closed," he said. "That refinery must not open until everything is sorted out, everything is settled." The temporary closure is the latest in a string of controversies for the \$2 billion Ramu Nico mining operation, which was China's first major resource project in Papua New Guinea when it opened in 2012.



PHOTO: The Ramu Nico mining operation has been subject to several controversies over the years. (Facebook: Kessy Sawang, file)

Landowners had fought a legal battle to prevent the mine from disposing of its tailings in the ocean via a deep-sea pipeline, however this failed in the courts in 2010. Plaintiffs in the case chose to fire their lawyer and abandon proceedings, a decision National Court Justice David Cannings said was "to a degree, suspicious". He said "reasonable people" would question whether the plaintiffs had been intimidated, threatened or paid off. There have also been fights between local staff and Chinese workers in the past, as well as attacks on the facilities, earlier slurry leaks, and one fatal workplace accident in 2016 that saw the mine temporarily closed.

Fisheries Authority Says Madang Seas Still 'Unsafe'

Melisha Yafoi, Post Courier, October 25, 2019

Sea water and marine products in Madang Province are still not safe for public use and consumption, says the National Fisheries Authority (NFA). NFA, in a statement yesterday, refuted claims by the management of multi-million kina Ramu Nickle [sic] project, now temporarily closed, that the sea waters and fish in the province were not contaminated. The Ramu Nickel Mine management on Wednesday announced that several statutory bodies responsible for fisheries and environment in the country had cleared that sea waters, including the marine environment in Madang Province and the Basamuk areas of Rai Coast district were safe with no evidence of toxic elements found after the slurry spill on August 24. The company also claimed that the clearance came after a meeting held by the Madang provincial government at which officials from the provincial fisheries authority confirmed that the sea waters and fish are safe due to no trace of any toxicity. The company further said the report was confirmed by Conservation and Environment Protection Authority (CEPA) and the Minister for Environment and Conservation, Geoffery Kama. All these claims were, however, refuted by NFA managing director John Kasu who slammed that as misleading and inaccurate.

Mr Kasu said NFA is aware of the slurry spill and is conducting an independent analysis following which a report would be made to the Minister for Fisheries and Marine Resources to make public.

"Such statements are misleading and undermine the analysis National Fisheries Authority is currently undertaking," he said. "Any official statement with regard to the analysis undertaken by NFA will come from my office or from the Office of the Minister for Fisheries and Marine Resources." He said the analysis on the samples taken from the affected area was still incomplete and, therefore, it was premature to make any conclusive statement at this stage. Prime Minister James Marape has supported the closure of the mine to allow for a review into its operations and prevent more mishaps or accidents. "The fact that a spill occurred indicates default in the mine operation and infrastructure and no matter how small, the cost to life or environment, my government expects highest degree of safety in any mine and resource extraction," Mr Marape said. "We are asking for the operator to an earliest meeting and to allow a quick assessment to their operational and infrastructural security so that no incident of any sort happens like this one into the future."

Miner's licence valid: MRA

BY JEFFREY ELAPA, October 25, 2019, The National

THE Ramu nickel mine in Madang still has a valid mining licence to operate, the Mineral Resource Authority (MRA) says. Managing director Jerry Garry said the mining licence issued to Ramu NiCo was still valid and had not expired as reported. Garry said the only issue now that needed to be addressed, was the renegotiation of the memorandum of agreement (MoA) between the stakeholders, for the benefit sharing. He said there had been several litigious actions in relation to the Ramu nickel mine, but that was put to rest when it was resolved that all parties (the landowner groups) needed to go back and elect their officials and their representatives. He said by law, only those elected could participate in the MoA, or the review, and renegotiations of the benefits including royalties and equities. Garry said once the elections were completed, and the representative elected, then the MoA review could take place.

The parties that are expected to participate are the Kurumbukari landowners, the inland pipeline landowners, the facility landowners at Basamuk, the local government authorities, the Madang government and the national government. The US\$2.1 billion (K4.08b) Ramu nickel project near Madang, on the north coast of PNG, was one of the largest, and most ambitious mining and processing projects to have been successfully brought into production in PNG during the past decade. Construction was completed by 2012, and the plant had since, been progressively brought into production. The Kurumbukari nickel and cobalt laterite mine is connected by a 135km pipeline from the Kurumbukari plateau, to the Basamuk processing plant which is 75km east of the provincial capital of Madang, along the Rai Coast of the Vitiaz Basin. The Ramu mine and Basamuk processing plant is a joint venture between Highlands (8.56 per cent), the PNG government and Landowners (6.44 per cent) and Metallurgical Corporation of China (MCC) Ramu NiCo Ltd (85 per cent). MCC holds a 61 per cent interest in MCC Ramu NiCo Ltd, with the remaining 39 per cent held by a number of Chinese entities.

Worrying sign for Harmony as Wafi-Golpu partner, Newcrest, scales back project activity David McKay, MiningMX, October 24, 2019

AUSTRALIAN gold miner, Newcrest Mining, has scaled back its presence at Wafi-Golpu, a Papua New Guinea (PNG) project it holds in joint venture with Harmony Gold, after running into "continued delays". Sandeep Biswas, MD and CEO of Newcrest, said in the firm's third quarter report today the project continued to be delayed "... by unresolved legal proceedings between the National Government and the Morobe Provincial Government" regarding how the economic benefits of the project would be distributed. The PNG government was also running a separate review of the project in terms of broader economic participation and distribution policies. As a result, the Wafi-

Golpu Joint Venture (WGJC) has deferred the planned work programme whilst the company's project team based in Brisbane and on site in PNG had been reduced. Other activities such as community and environmental programmes at the site would continue, however.

"It is difficult to estimate the duration of this delay and the market will be advised when discussions recommence," said Biswas. He added that the PNG government had continued to "signal its support for the project". Harmony Gold said in May that following the appointment of PNG's new prime minister, James Marape, there had been uncertainty about how quickly the project may progress. The PNG first focused its attention on natural gas projects against a backdrop of political unease in the country. Earlier this month, PNG authorities issued warrants for the arrest of the country's former Prime Minister Peter O'Neill on suspicion of "official corruption". The O'Neill government signed a memorandum of understanding (MoU) regarding the development of Wafi-Golpu but it did not state the ownership that the PNG government may take in the project. "Consequent delays in the work program will increase permitting costs," said Morgan Stanley of Wafi-Golpu in July.



"We view PNG as a relatively high risk jurisdiction, and if permitting approvals are not forthcoming, development of the project could stall and exacerbate our concerns over Harmony's long-term production decline," said JP Morgan Cazenove in a note. Significant delays in the development of Wafi-Golpu could also heighten risks about Harmony's long-term production profile notwithstanding last year's purchase of Moab Khotsong from AngloGold Ashanti. Harmony is thought to be considering the possibility of making a bid for the Mponeng and Mine Waste Solutions assets in South Africa that AngloGold has put up for sale. The Wafi-Golpu copper-gold mine could cost Harmony Gold \$2.82bn in initial capital expenditure to build to commercial levels of production as per a 2018 feasibility study. Of this, Harmony will shoulder about 50% with Newcrest Mining Limited, an Australian firm, carrying the balance. Average annual gold production was put at some 266,000 ounces.

Project proponent seeking partner for alluvial mining project

October 24, 2019, The National Business

A PROJECT proponent, Ramu Resource Development Ltd is seeking joint venture partnership in developing an alluvial mining project in Middle Ramu, Madang. The project, valued at K2.2 million, started in 2010 under EL1755 and operated with initial investor – Australia PNG Minerals Ltd until 2012, according to the Investment Promotion Authority's (IPA) September newsletter. In 2013, the project proponent applied for a new exploration license (EL2299) in partnership with Premier Projects (PNG) Ltd. The project proponent is now seeking a new developer to develop a mechanised alluvial mining project. All previous exploration information filed with the Minerals

Resource Authority indicate high mineralisation deposits in several areas within the mine tenement area.

Frieda River: Firm starts community talks

October 24, 2019, The National Business

THE Sepik Development Project Conservation and Environment Protection Authority (Cepa) statutory engagement campaign started in Vanimo, West Sepik, yesterday, according to PanAust Ltd subsidiary Frieda River Ltd (FRL). According to a statement from PanAust, over the course of the 10-week campaign, the FRL Community Affairs team will join Cepa and Mineral Resources Authority (MRA) representatives to consult with communities along the project's proposed Vanimo to Frieda River proposed road corridor and the Sepik River. The campaign will be split between the road corridor (Oct to Nov, 2019) and the Sepik River (Feb to March 2020). There will also be consultations conducted next month in the main regional centres. The campaign follows the commencement of Cepa's independent peer review of the project's Environmental Impact Statement (EIS) and dam integrity assessment done last month.

Independent consultants, Hydrobiology and Snowy Mountains Engineering Corporation (SMEC) have been commissioned by Cepa to complete the reviews. Also last month, the company published the project's environmental impact statement (EIS) on the Frieda River website – www.friedariver. com to coincide with the campaign. The website also hosts fly through videos, factsheets and other project-specific information. The Sepik Development Project director Scott Cowie spoke about the importance of the campaign and the company's history of engagement with communities in PNG. "Cepa's engagement forums will promote open and inclusive discussions between Cepa, MRA and company representatives and facilitate honest, two-way conversations with communities along the project's logistics corridor and the Sepik River," he said. "We encourage communities and stakeholders of the project to participate in an open and respectful way in the forums to ensure open dialogue without any threat to safety and security." Cowie said this was the third campaign the company had been involved in since 2015.

"In 2018, the engagement included more than 7,000 people from approximately 97 villages along the Sepik River and the infrastructure corridor. The campaign was conducted in conjunction with environmental consultants Coffey, Cepa, MRA and the West and East Sepik provincial governments and district and local level government authorities. "Feedback and community input from these engagement activities has informed project designs and decision-making processes," Cowie said. "PanAust's engagement processes enable community participation and respect for traditional methods of decision-making. PanAust's engagement processes provide a template for how FRL will operate in PNG," Cowie said. "The company is committed to working with the Government to deliver the Sepik development project's world-class hydroelectric operation, copper-gold mine and supporting infrastructure that will make a significant contribution to PNG's long-term growth and prosperity,"

Madang Governor Applauds Ramu Mine Closure

Post Courier, October 24, 2019

Madang Governor Peter Yama yesterday thanked the Government for taking a bold step in shutting down the Ramu Nico mine indefinitely. He said it was a sign of victory for the small people of Madang and Papua New Guinea against a Chinese multi-national that was continuously breaking PNG regulations. Mineral Resources Authority yesterday ordered the mine shut down until it meets conditions it has not met under its MOU. Mr Yama, who has called for the closure of the mine since

the slurry spill last month said: "I have engaged Dr Monzon and his scientists from Switzerland and they will return at the end of this month to do further sampling." The Monzon tests earlier proved that the slurry spill and deep sea tailing pipeline dumping has affected the sea, marine life and people.

Mr Yama said the scientific findings showed the presence of very heavy metals including mercury. "On behalf of my people, I want tailings dumped on the seabed to be stopped," he said. He said the developer MCC should have built a tailings dump on land at Usino Bundi. "You cannot gamble with the lives of my people," he said. "You cannot gamble with lives and money. "You just cannot compromise human life." He said he wants to see a tailings dam built, water pumps with purifiers distributed to his people, remedial action taken on all polluted rivers and creeks, proper air and dust control and Basamuk smoke stakes, MCC to allow Madang government engaged scientists to access their materials for samples and DSTP to be permanently closed down.

PNG's Ramu nickel mine closed temporarily

Radio New Zealand, 24 October 2019

Papua New Guinea's Ramu nickel mine in Madang province will be closed temporarily, the country's mining minister says. Johnson Tuke said the mine's operator, Ramu Nico, a subsidiary of the Metallurgical Corporation of China, had breached PNG's environmental and safety laws. The Conservation and Environmental Protection Authority has conifirmed that in August 200,000 litres of toxic slurry spilt into the sea from the mine's refinery. The spill turned the sea red in Basamuk Bay and was linked by locals to numerous health problems. The Madang provincial administration has put a temporary ban on catching and consumption of fish. Prime Minister James Marape this week said there would be a new independent report into the spill.

Mr Tuke has told local media that while investigations were underway, the mine operations would temporarily shut down. The Conservation and Environmental Protection Authority found heavy metal contamination within the local waters is within acceptable levels. Environment Minister Geoffrey Kama said most of the spillage was subsequently contained, and that everything was back to normal for swimming and recreation in the waters. However, he said people should refrain from eating fish for another month or so, pending further testing of fish samples. A recent report by an international team led by Swedish scientist Alex Mojon and commissioned by Madang's provincial government pointed to a catastrophic impact caused by waste from the Ramu mine on the marine environment.

Mine told to close

By JEFFREY ELAPA, October 24, 2019, The National Main Stories

THE Government has closed down the processing plant of the multi-billion kina Ramu nickel mine in Madang for "violating mining and safety standards". Mining Minister Johnson Tuke also warned other mines in the country to follow the law. He said the processing plant shut down its operation as ordered on Monday. "Safety cannot be compromised as it deals with lives and safety of the people," Tuke said. "Therefore the company was ordered to cease operations because it failed to adequately rectify defects recommended during the investigation by the (mining) inspectorate into the incident that resulted in the spillage of slurry into the sea on August 24." The operation shutdown is for an indefinite period. It is only for the processing plant but it inevitably affects the entire operation.

The US\$2.1billion (about K6.5 bil) Ramu nickel project near Madang is rated one of the largest and most ambitious mining and processing projects to have been successfully brought into production in

PNG. The Mineral Resources Authority (MRA) said the China-owned Ramu nickel and cobalt mine had violated mining and safety standards of operations. Its managing director Jerry Garry and Chief Mining Inspector Lave Michael were with Tuke during the announcement of the closure. Garry said the MRA was responsible for safety and had nothing to do with environmental issues relating to mining which was the responsibility of the Conservation Environment Protection Authority. Michael said following the slurry spillage on Aug 24, the mining inspectorate from MRA went to Madang and Basamuk to investigate. It found that the mine lacked safety standards posing risk to lives.

The defects identified included the "incompetency of the operator, inadequate bund capacity, inadequate spillage containment system and inadequate maintenance of instrumentation and machines". He said they issued 16 remedial action items and advised the company to address them. But after six weeks, the company did not carry them out. In response to the shutdown of operations, the mine management said as a responsible investor in PNG, they would try their best to comply with all the laws that govern their operation in the mining industry. "The mine inspectors are on the ground at Basamuk for inspection so upon their instruction, Ramu Nico will make its official comments if need be. Now we respect their inspection until further notice. We are also working closely with MRA and CEPA and other statutory bodies to ensure we do not breach any laws."

Ramu Nico Mine Shut Down

Madang based miner fails to comply with remedial measures to fix slurry spillage defects Melisha Yafoi, Post Courier, October 24, 2019



The Basamuk refinery which has been closed down until remedial steps are taken

The Ramu Nickel Mine in Madang Province has been closed for an indefinite period following weeks of controversy over the slurry spill into Basamuk Bay. The government, through its mine's regulator Mineral Resources Authority (MRA), last Friday ordered the indefinite closure of the operations of Ramu Nico's multi-million kina Basamuk processing plant from Monday this week. The closure follows orders from MRA's Inspectorate Division, in compliance with the Mining Safety Act of 1977, after the company failed to comply with 16 remedial measures to rectify defects identified from a slurry spillage on August 24. According to the Chief Inspector of Mines, Lave Michael, an investigation was carried out two days after the slurry spill that identified four main defects for which remedial action have to be taken to avoid similar disasters in future.

These defects are incompetency of operators, inadequate bund capacity, an inadequate spillage containment system; and, inadequate maintenance of instrumentation and machines among others. Mr Michael said of immediate concern was the overflow of acidic slurry from a controlled area which endangered the environment and people and their livelihood. He said despite being given ad-

equate time, the company failed to fully address issues identified during the investigations. Managing director Jerry Garry said the company was given 16 remedial measures to rectify but has failed to comply with some of the critical recommendations that the inspectorate division made. "Based on that we have no option but to basically ask them to shut down a portion of the operation and apparently that portion of the operation is a critical part of the Basamuk processing plant which critically crippled the entire operation," he said.

Mr Garry issues pertaining to the competency of the operators were a long term issues. He said MRA wanted to see the construction of adequate bund and the maintenance of equipment as a priority before the mine can be re-opened. Minister for Mining Johnson Tuke reaffirmed that the course of action taken by the inspectorate was compliant to the Mining and Safety Acts. He said, as minister responsible for mining, he wanted all the companies become fully compliant of the country's laws. He commended the Inspectorate Division for conducting due diligence to ensure that similar incidents did not occur in future. "I very much acknowledge the great work put in place by the chief inspector as well as the managing director to make sure that our Acts are not just on paper, we are transmitting what has to be done and, like I said, that is again indeed a message to some of the companies operating in PNG to make sure that they are compliant," he said." As we are speaking, on site we have some inspectors to make sure that they follow the order."

Get a third opinion on spill: Juffa

October 23, 2019, The National Business

Northern Governor Gary Juffa has called on the Government to sanction a third investigation by an independent source into the slurry spill incident in Basamuk Bay, Madang. Juffa said the Government needed a third assessment of the situation in Basamuk to verify the two reports released so far. "The slurry spill incident has caused the lives of many of our people and as leaders what are we doing about it?" he said. "I'm proposing that we immediately sanction a third investigation from independent source. "We can go to the Australia government or an independent reputable firm to conduct the assessment of the area so that we can be assured of something being done about this situation."

Juffa said PNG needed to learn the hard lessons from Bougainville of the damage done. "We are bearing the bill of that," he said. "We must learn the lessons so we do not repeat the mistakes made by those who went before us. "We can bring the best people in the world in the short time and they could carry out an assessment immediately of the area and inform us." Juffa said the people were watching. "Protect and promote PNG as long as we call ourselves leaders. I believe we ought to seriously consider shutting this mine down or at least suspending it until we find out for sure the state of this disaster and what it has done to our people," Juffa said.

Solomons' gold mine to launch redevelopment

Radio New Zealand, 23 October 2019

A closed Solomon Islands' gold mine is set to be officially relaunched this weekend. The troubled Gold Ridge Mine, which has changed ownership multiple times over the years, has been closed since 2015. It is now being redeveloped by the Chinese-owned Australian developer AXF Group in partnership with local landowners in Central Guadalcanal. The full details of the reconstruction by the China Railway International Group is expected to be announced during a ground-breaking ceremony on Saturday, the *Solomon Star* reports. Gold Ridge senior official, Allen Wang, said he believed China Railway had the mining experience, construction expertise and Pacific experience to make a great contribution to the development of a world class mine in Solomon Islands.

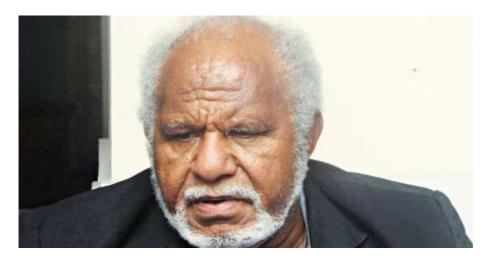
PNG's Madang waters now safe for swimming - Govt

Radio New Zealand, 23 October 2019

Coastal waters in Papua New Guinea's Madang province are now safe for swimming despite a recent spill of mine slurry, PNG's Environment Minister says. In August, 200,000 litres of 'toxic slurry spill' from the Ramu Nickel Mine's refinery turned the sea red and was linked by locals to numerous health problems. A new report into the spill by PNG's Conservation and Environmental Protection Authority found heavy metal contamination within the local waters is within acceptable levels. The minister, Geoffrey Kama, said most of the spillage was subsequently contained, and that everything is back to normal for swimming and recreation in the waters.

However, he said people should refrain from eating fish for another month or so, pending further testing of fish samples. It's unwelcome news for many local families who rely on fishing for food and income. Prime Minister James Marape has told Parliament there will be a new independent report into the spill. A recent report by an international team led by Swedish scientist Alex Mojon and commissioned by Madang's provincial government <u>pointed</u> to a catastrophic impact caused by waste from the Ramu mine on the marine environment. At the start of the month, Madang province temporarily banned sale and consumption of fish, following the reported death of a Basamuk Bay man after he ate poisoned fish.

Yama – Fight Will Continue Until Ramu Mine Ops Cease Gorethy Kenneth, Post Courier, October 22, 2019



Madang Governor Peter Yama assured the people of Rai Coast that the fight on the pollution caused by slurry spill from the Ramu NiCo's Basamuk refinery would continue until the mine was successfully closed. He travelled to Bindeng in Saidor, Rai Coast district, to officially close the week-long Kangal Festival last week. The people of Bindeng called on the governor to pressure the national government to shut down the Ramu NiCo mine. Spokesman Daniel Kala said it had almost been a month and the people had not heard from the national government on it actions to protect the people and the environment. He said the ban imposed by the Madang provincial administration on the selling of fish in the province had affected their school children as well as their daily income opportunities.

Mr Yama said because of the urgency of the issue he had to rush from last Thursday's Parliament session to be with the people and to brief them on the actions he had taken to pressure the government to take measures. "I flew back to Madang and addressed my people on the stand the government would be taking on the Basamuk slurry spill incident. I assured my people at the Kangal Fes-

tival at Bindeng that I will continue to fight and make sure the mine closes," he said. He also urged his people to work together if they wanted to see change in their area. The slurry spill incident has caused fear among the people, especially when they go out to the sea, he said. He said also that for too long the people and provincial government had not benefited from the mine and had become mere spectators on their own land.

Geopacific sets up Woodlark development with \$45m package Australian Mining, October 21, 2019



Geopacific's Woodlark gold project is in the pacific 'ring of fire', home to some of the world's best gold projects. Image: Geopacific.

Geopacific Resources has completed a \$40 million share placement to fund development of the Woodlark gold project in Papua New Guinea. Additionally, Geopacific has also offered eligible Australian and New Zealand shareholders a share purchase plan, which will deliver a further \$5 million. The placement was made to sophisticated and professional investors for 1600 million fully paid ordinary shares at \$0.025 per share, representing a 10.7 per cent discount to the last close. The share purchase plan will be offered at \$0.025 per share, allowing shareholders to acquire up to \$30,000 of new shares. Geopacific managing director Ron Heeks was pleased with the result of the capital raising, saying it showed the company's shareholders were committed to seeing Woodlark start production. "The capital raising has provided an excellent result, with shareholders demonstrating their commitment to moving Woodlark into production," Heeks said.

"All shareholders, new and existing, clearly understand the tasks and rewards ahead and we are delighted and appreciative of their strong support to begin the process of producing gold. "The raising will allow the company to commence early site works in preparation for process plant construction, which will enable gold production to be reached in a shorter timeframe." The capital raising's net proceeds will fund front end engineering design, civil construction, relocating the Kulumadau village, mine camp upgrades, project financing costs and other development and expansion working capital. The share purchase plan will open to shareholders on November 4 and close on November 29. The Woodlark project is on an island in Papua New Guinea's Milne Bay province. It is surrounded by world-class mines, including Newcrest Mining's Lihir and St Barbara's Simberi, and shows promise for a low-cost, simple processing project.

Protect environment: MP

October 21, 2019, The National Business

GOILALA MP William Samb wants to see the protection of the environment guaranteed first before any mining is done. "We must protect our people and our environment," he said. This was the message the district wanted to relay to any interested party planning to take over the Tolukuma mine in the district. Samb told Parliament during a debate on the slurry spill near the Ramu nickel mine in Madang that it should be of serious concern because it affected people's lives. He said if such serious damage to the environment occurred, the Government must take immediate action to protect the people. Samb accused mine safety officers of doing nothing to address pollution at Ramu saying, "just like their friends at the Conservation Environment Protection Authority." "We are our own enemies," he said. "We must follow the laws and do things right. "The Government must direct an independent study into the environmental damage in Madang. "We have the experiences of Ok Tedi and also in Porgera. The damage into the environment by the Porgera mine is unknown. "The waste from Porgera is being dumped into the Strickland River." Samb said the Tolukuma mine in his district had damaged the environment as indicated by the presence of toxic material in vanilla beans and the damage to the rivers in Central.

Cook Islands: manager of world's biggest marine park says she lost job for backing sea mining moratorium. Ben Doherty, The Guardian, 19 October 2019

The public champion of the world's largest marine reserve – the Cook Islands' Marae Moana – has said she lost her job managing it because she supported a moratorium on seabed mining in the Pacific. Six months ago, Jacqueline Evans won the Goldman Environmental prize – the world's foremost environmental award – for her work establishing Marae Moana (meaning "sacred ocean"), which covers the Cook Islands' entire exclusive economic zone of more than 1.9m sq km Evans alleges she lost her job as director of Marae Moana because she argued in favour of a 10-year-moratorium on seabed mining to allow for research on its environmental impact. The Cook Islands government is proceeding with mining exploration, saying it wants to be at "the frontier of the new gold rush" and could be ready to start seabed mining within five years. It says mining the seafloor for metallic nodules could provide financial security for the islands and help them mitigate climate change.

"The catalyst was my policy advice to my colleagues within government that we support Vanuatu, Fiji and PNG on their support for a 10-year moratorium on seabed mining ... so that baseline scientific data can be collected," Evans told Guardian Australia. She said she was "gravely concerned that government officials don't want to take the time" to collect data from the reserve, including on the little-understood species that live in the deepest parts of the ocean. "Our ocean is important to us, for our survival. If we destroy the ocean, we destroy our food supply, our livelihoods and our economy. Marae Moana represents how Pacific Islanders feel about their Pacific Ocean. It's important that this viewpoint is upheld." The proponents of seabed mining argue it can provide minerals critical to renewable energy industries with little waste. But environmentalists arguing for caution say precious little is known about the deep ocean, and even less about the potential environmental impacts of mining it.

Evans was one of six winners of the Goldman prize in 2019 for her "five-year grassroots campaign" to better protect the Cooks' marine biodiversity. In addition to mandating sustainable use of its waters, Marae Moana established a 50-nautical mile fishing exclusion zone around each of the Cooks' 15 islands, leaving those waters exclusively for the use of island communities. The Cook Islands' prime minister, Henry Puna, has been crucial in directing government support for the reserve, and the former rugby league player Kevin Iro, now ambassador for Marae Manoa, first proposed the

idea and led the campaign for the marine park. But Evans was responsible for developing government policy and the Marae Moana Act, which parliament passed in 2017. Until last month, she was the sole employee of the Marae Moana Coordination Office.

In a statement reported by the Cook Islands News, the prime minister's chief of staff, Ben Ponia, thanked Evans for bringing "passion, expertise, and energy into this role". Several sources have told the Guardian that Evans lost her job, which was within the office of the prime minister, because of her support for the moratorium. This has been reported in the Cooks, and has not been denied by the government. The prime minister's office did not respond to a request for comment on Evans's dismissal. Evans said a moratorium should be acceptable to both supporters and opponents of mining. "Advocates for manganese nodule mining ... say that the only life at 4.5km to 6km deep, where the manganese nodules lie on the seabed, are small 'head lice'," she said. "We know so little about the ecosystem at that depth. We need to collect more information before such statements can be made."

The Cook Islands Seabed Minerals Authority said ocean survey work over four decades had identified as much as 12bn square tonnes of mineral-rich manganese nodules spread over the Cook Islands' continental shelf. "This seabed mineral resource offers a significant opportunity for the long-term sustainable economic and social development of the Cook Islands," it said. In a statement last week, the minerals authority said: "Despite calls for a 10-year moratorium on seabed mining in the Pacific to allow time to conduct more environmental research, the Cooks are set to be the frontier of the new gold rush". Deputy prime minister Mark Brown said seabed mining could prove vital to the country's financial security and contribute revenue towards climate change resilience. "We can't just sit back and expect good things to happen for the country, and I see us as taking the lead," Brown said.

<u>Deep-sea – or seabed – mining has proved contentious</u> wherever it has been proposed. Proponents argue it could yield ore far superior to land mining in silver, gold, copper, manganese, cobalt and zinc, with little, if any, waste product. The industry is potentially worth billions of dollars and could assist the transition to a renewable energy economy, supplying raw materials for key technologies such as batteries, computers and phones. Environmental and legal groups have urged extreme caution, arguing there are potentially massive ramifications for the environment and for nearby communities. Scientists argue deep sea biodiversity and ecosystems remain poorly understood, making it impossible to properly assess the potential impacts of mining – including disturbance of seafloor ecosystems, sediment displacement and noise, vibration and light pollution.

Yama urges govt to shut mine

October 18, 2019, The National Business

MADANG Governor Peter Yama, pictured, has called on the Government to shut down the Ramu nickel mine in Madang as it does not meet international best safety standards. Yama made the call during debate in parliament in response to a statement by Environment and Conservation Minister Geoffery Kama in relation to the slurry spillage into the seas of Basamuk Bay in the Madang on Aug 23. Yama claimed statement was misleading as an independent scientific investigation carried out had indicated that the sea around the Ramu Nico refinery was polluted. He said over the 19 years of operations, the company had made billions but had not been paying its fair share of taxes to the Government and had not changed the lives of the landowners but had negatively impacted the environment and the lives of the people. The Governor said so far marine life had been killed and that include the evidence of dead fish being washed ashore.

Yama said apart from marine life, food crops had also been affected. Yama said lives had been affected with two people reportedly dead after consuming contaminated fish. Their bodies were at the

Modilon General Hospital awaiting post-mortems. "Prime minister and deputy prime minister, you have to close the mine in the interest of the people," Yama said. "Tell them to pack up and leave and let the government take-over." He said Justice David Cannings in the National Court in 2002 had ordered the Conservation Environment Protection Authority to supply reports four times annually on the environmental assessment. But he said they had never done that. Yama called on the prime minister and his deputy to visit Madang and see for themselves and hear the people's concerns. Rai Coast MP Peter Sapia supported the governors call for the closure of the mine. Sapia claimed the mine had not brought any tangible development to his district and there was no need to allow it to continue to destroy the environment and the lives of the people.

CEPA Says Madang Waters Are 'Safe' – but warns against eating fish!

Elias Nanau, Post Courier, October 18, 2019

The Conservation and Environment Protection Authority (CEPA) has assured that the waters around the Basamuk area in Madang are safe and free of toxic contamination. CEPA officials gave the assurance yesterday following tests and conclusion of water samples tested at the Australian Laboratory Services in Brisbane. Michael Wau, director for Environment Regulatory operations, took the media through the findings yesterday. He said water samples were obtained from the villages of Naglau, Duman, Domestic Wharf and Drains 1 and 4 outlets. Their average concentrations were below baseline concentrations and met environment permit conditions, Mr Wau said. He said out of the 200,000-litre slurry spill, 100,000 was contained within the refinery while 80,000 spilled into the Basamuk Bay. The slurry spill was said to have been caused by pump failure. "Results of samples did not indicate major interference with sea water composition apart from turbidity caused by outfall material after heavy rains," he said.

Environment and Conservation Minister Geoffrey Kama who joined the presentation endorsed the statements by his officers. "I think everything is back to normal," he said. "It's not about the color, we want to detect the metals," has said whilst cautioning the local people not to consume any fish caught in the area until further test were done to make the findings conclusive. "We are not here to support the company, we are not here to tell lies," Mr Kama said. He said CEPA would engage two independent scientists to sample toxic contamination from fish and this exercise would be completed within four weeks. While the Madang Provincial Government-sponsored Swiss scientist Dr Alex Mojon and his report appear to contradict CEPA's report, they told the media they were not able to critique or criticize the report without the benefit of reading it.

Minister Delivers CEPA Report On Ramu Slurry Spill

Miriam Zarriga, Post Courier, October 18, 2019

Conservation and Environment Protection Authority (CEPA) investigations have confirmed that 200,000 litres of raw slurry had actually over flowed from one of the company's surge tanks within the Basamuk plant site. Minister for Environment Geoffery Kama said this when presenting his ministerial statement on the Basamuk plant slurry spill incident. "Sixty per cent was captured within the bund and emergency ponds, and drainage within the plant site, 40 per cent escaped via the drainage into the sea of the Basamku Bay, 80,000 litres of raw slurry that caused the discoloration of the sea water that continued for two days," Mr Kama said. "The discoloration cleared up and the sea water in the Bay was visibly clear on the third day.

"The results from the samples show that no major interference or impacts on the seawater composition at the bay and nearby marine areas." Mr Kama declared the area safe for swimming and recreational purposes. However, precautionary measures must be taken, he said. "The Basamuk Bay peo-

ple must refrain from catching and eating fish from the Basamuk Bay now and for the next four and six weeks as CEPA is yet to establish if there is any residues of heavy metals contamination through food chain in the fish around the bay." Speaking on the independent study endorsed by the Madang provincial government, Mr Kama said that CEPA as the regulator has not been formally informed of such an independent study by the Madang provincial government. "I want to see the provincial government and the national government working together and not working in isolation."

PM: Care for environment

By HELEN TARAWA, October 18, 2019, The National

THE harvest of resources comes with a price – its effect on the environment, Prime Minister James Marape, pictured, says. He was commenting on the statement by Environment, Conservation and Climate Change Minister Geoffrey Kama in Parliament on the slurry spill in Basamuk. Marape said investors must operate with responsibility and give due care to the environment and the people. "Without specifics of the fact and the impact on the environment, the fact that there was a technical defect in the structure of the mine itself warrants deeper studies as far as the mine safety and operations are concerned," he said. "Cabinet had indicated further investigation and assessment. "This report and the investigation is not a conclusion and not the end of the story. "It is a journey to towards ascertaining exactly what has taken place and what we must do."

Marape said there was a slip in the mine infrastructure and irrespective of the extent of the damage, there was a fault that warrants deeper scrutiny, investigation and assessment. "I am giving assurance to the people of Madang, Usino-Bundi and Raicoast that we will work with all stakeholders and the Madang government led by the Conservation Environment Protection Authority (CEPA), Mining Department and inter-government relations chaired by the deputy prime minister to look deeper into what happened. "I'm just falling short of asking the mine to cease until we take stock, but this will not be influenced by emotions to make this call but to allow due processes." Meanwhile Parliament has been adjourned for two weeks and will resume on Tuesday Nov 26 for the 2020 budget session.

Gas project on track By GYNNIE KERO, October 18, 2019, The National



The map showing the offshore fields.

AUSTRALIAN firm Twinza Oil expects the first liquids production from its offshore gas field in Gulf by 2022, according to managing director Huw Evans. The Pasca A gas condensate field, the country's first ever off-shore development, is 85 km from the shores of Gulf and within the Exclusive Economic Zone. Evans told The National that the cost of the liquids phase of the project is around US\$640 million (K2.12 billion), with most of it arising from development drilling and the construction of production facilities. He said the Pasca A facilities would have third party access, enabling the commercialisation of other gas projects. "All the facilities will be installed offshore in the Gulf of Papua using industry-proven offshore designs that have been successfully deployed in other offshore locations for many decades."

Evans said Twinza was working with the Department of Petroleum and Petroleum Minister Kerenga Kua to conclude negotiations on the Gas Agreement which could lead to the award of the petroleum development licence (PDL) before the end of the year. Last month, a ministerial determination was signed allowing Twinza to proceed with its investment. Kua said the signing of the ministerial determination allowed the benefit-sharing process between the Gulf government and the Government to move ahead. "What still remains is for us to work towards the granting of the PDL and the signing of the Pasca Gas Agreement over the next couple of months." Evans said looking beyond the initial production phase, "the full field development includes export of the gas using floating LNG".

This scope would involve addition of a short flow line to a liquefaction barge moored close to the production facilities. Initially, the barge would have capacity to produce around 0.7 million tons per annum of LNG at an additional cost to the project of US\$790 million (K2.62 billion). "The commencement of the front-end engineering and design or FEED stage will be after the conclusion of approvals with the Government on the project's gas agreement and development licence," he said. "The project will be producing condensate, LPG and natural gas. "Production will average approximately 19,000 barrels per day of which 55 per cent is condensate and 45 per cent is LPG (liquefied petroleum gas). "A good portion of the products will be going to the international markets in the Asia-Pacific. "We are yet to finalise discussions with the State. "But a portion of the LPG production is being considered for the PNG domestic market."

Madang people suffering from Ramu mine spill

Luwi James, Post Courier, 18 October 2019

It is confirmed that sea waters in Madang is contaminated and poisoned by highly toxic slurry spill from the Basamuk refinery in Raicoast few months ago. The independent Swiss specialist Dr Mojon who was engaged by the Madang provincial administration has confirmed this in his findings. This will have a negative impact on the lives of people. Madang provincial government has already warned the people not use or consume fish from the sea and this is likely to continue on for an indefinite period of time depending on the assessment and solution of this problem. People living by the sea and on the islands like Karkar, Krangket, Manam, Bagbag, Long Island and other smaller islands have already started feeling the effect. The sea is their life and poisoning it is simply starving them to death. The microsocio-economic cycle and protein supplement of these people has been completely snapped.

This issue also affects tuna production in Madang. Currently, the company is canning fish which are in stock and may stop canning, awaiting the purification of the sea from the poison. People are also afraid to buy canned fish sold in stores and supermarkets. The deep sea tailing project (DSTP) has been challenged in court by landowners of Basamuk and MCC. The court issued the direction to have constructive measure and a proper regulation system in place to closely monitor the facility

but this has never been done which has resulted in the spill and poisoning of sea water. The people of Raicoast and those on the islands are experiencing all kinds of illnesses.

Vegetation near the shores are turning yellow and drying up. Dead fish are filling the sea shores. People have been attributing these matters to black magic and sorcery but now they have come to realise that toxic waste from the mine has been the cause of these problems. The department of environment, conservation and climate change and developer MCC are rebutting the report of the scientist is ridiculous. They are showing their lack of concern for the damage done and how to solve this issue amicably. The Madang provincial administration must be applauded for undertaking this issue seriously and that the mine has to stop until all investigations are done and proper measures are in place to guarantee the safety of our people.

PNG still waiting on tests from slurry spill

The spill of thousands of litres of mining slurry off Madang's coast resulted from an overflow at the Ramu nickel mine site, a Papua New Guinea government agency says.

Radio New Zealand, 18 October 2019



Basamuk Bay Photo: Facebook/ Elisha Wesley Mizeu

The Conservation and Environment Protection Authority had been investigating the overflow, which had led to bans on the catching and consumption of fish from the Basamuk Bay area for the next four to six weeks. In a statement to Parliament, Environment Minister Geoffrey Kama said 60 percent of the slurry was contained, the *Post Courier* reports. The results of samples taken showed that there was no major interference on the composition of the seawater. The minister told Parliament the area was safe for swimming and recreational purposes. However, he said the ban on fishing and consumption of fish remained until the Authority could establish if the fish were contaminated with heavy metals residue.

Kua: Big chunk to locals

By HELEN TARAWA, October 17, 2019, The National

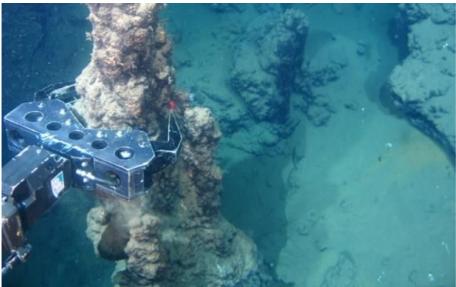
Petroleum Minister Kerenga Kua, pictured, says 35 per cent of the US\$10 million (K 33.9 mil) to be used for the construction phase of the Papua LNG Project must be spent on engaging local companies. Kua told the people of Gulf that it was among the issues negotiated during a meeting in Singapore last month. The Government wants a big chunk of the construction cost to go to landowner

companies. "We will organise our people so that they will form business units and they will support that. "They have agreed in principle to look at maximising business opportunities for landowner and PNG-owned companies," he said.

Kua said there were some issues with foreign exchange because the country was suffering from a shortage of foreign currency. "The previous projects we had did not help us with foreign currency availability in the country so we have to make sure that this project must solve these problems," he said. "Every time PNG businesses want to go out and import things, they have these problems. "They have agreed and they will discuss this with the Central Bank. "We fought hard for the benefit of our people against considerable resistance and I'm pleased to say that we have succeeded. "Our primary interest is to protect our people." Kua said Gulf had so much to offer but should be done in the interest of the people.

Cooks opposition backs seabed mining moratorium

Radio New Zealand, 15 October 2019



Seabed mining Photo: Supplied

The Democratic Party of the Cook Islands is backing a call by some Pacific countries and civil organisations for a 10-year moratorium on any seabed mining activity. The opposition party said there were too many unknowns about the seabed and long-term impact of mining it. Party leader Tina Browne said a precautionary approach would afford Pacific island countries, including the Cook Islands, time to gather and learn from more scientific data. Ms Browne is urging the government to be completely transparent and cautious about any ventures to exploit the local seabed to harvest stocks of manganese nodules concentrated in the South Penrhyn Basin.

Debate over Basamuk spill

By REBECCA KUKU, October 15, 2019, The National

THE sea around the Basamuk area in Madang is not contaminated, Environment, Conservation and Climate Change Minister Geoffrey Kama says. Kama told Parliament last week during questions without notice that the laboratory test results done in Brisbane, Australia, found that the sea was not contaminated and that only the colour of the sea had changed as a result of the spillage of 200,000 cubic meters of waste from the Ramu nickel project. "The spillage was due to one of the tanks been blocked, which caused an overflow where 200,000 raw material spilled over," he said. "However,

60 per cent went into the tank and only 40 per cent went out into the sea and that caused the colour of the sea to change." "And the laboratory test results show that only the colour of the sea has changed and there is no contamination." Wewak MP Kevin Isifu then called a point of order asking Kama to verify the reports as there was evidence of marine life dying in the area.

"The test found that the sea was not contaminated, it was just the change of colour and I will be presenting this report to Parliament sometime next (this) week," Kama said. Ijivitari MP Richard Masere also called a point of order and told Kama to stop evading the truth. Masere called on Kama to put a stop or issue a temporary suspension on the mine until a formal investigation was done. "We need to fully understand what is the implication of this spill and what is it going to cost, not just now but into the future?" he said. "The minister (Kama) must give the Parliament and the people the assurance that this government is serious in addressing this matter that is caused by an alien company and we must come down hard on this company." North-Fly MP James Donald also called on Kama to clarify if he had received a copy of the report of the investigation done by the Madang provincial administration into the spillage which found that the spillage was a catastrophe. Kama said he did meet with the provincial administration and was still waiting to present his findings to the National Executive Council.

KPHL explains LNG money

October 15, 2019, The National Main Stories

THE Kumul Petroleum Holdings Ltd (KPHL) has explained to the Government how its share of PNG LNG project of US\$1.3 billion (circa K5 billion) had been spent, managing director Wapu Sonk, pictured, says. Sonk submitted the performance report to Prime Minister James Marape as the sole trustee/shareholder of the Government. "The gross revenue was US\$19.2 billion (more than K65 billion) including condensate sales revenue between 2014 and 2018," he said. He said a total gross revenue of US\$1.3 billion (K5 billion) was KPHL's share of proceeds from the 470 LNG shipments as at the end of last year.

In light of queries raised by stakeholders, members of the public and interested groups in relations to PNG LNG project revenues, especially the State's 16.77 per cent stake in the project, Sonk said it was not a straight-forward arrangement. Sonk urged the people of PNG to first understand how the project was structured as an unincorporated entity, the financing and marketing arrangements, project operational costs, project capital costs and other aspects of the project, which were paid before a final revenue for each equity partners was paid or distributed. Of the US\$19.2 billion (K65bil) in gross revenue:

- Operator cash calls (Opex and Capex) was US\$6.3 billion or 33 per cent of the gross revenue:
- debt finance servicing of US\$4.9 billion representing 26 per cent of gross revenue;
- royalties to project area landowners including facilities and pipelines totalling US\$0.1 billion or 1 per cent of the gross revenue;
- development levies of US\$0.1 billion (1 per cent);
- taxation (project tax to State) of US\$0.4 billion (2 per cent);
- debt service reserve account of US\$ 1.1 billion (6 per cent); and,
- Distribution to joint venture partners of US\$6.3 billion including the Kumul Petroleum share.

Sonk said out of the K5 billion KPHL revenue, the national oil company remitted to the State K4.2 billion in the 2014 to 2018 period. It is almost 80 per cent of the total KPHL revenue in that period.

Chinese miner in PNG likely to face environmental lawsuit

Dateline Pacific, Radio New Zealand, 14 October 2019

The Madang provincial government in Papua New Guinea is likely to file a lawsuit against the owner of the Ramu nickel mine in coming weeks. The mine, owned by Metallurgical Corp of China, or MCC, has been found to have mismanaged toxic waste it dumps into the sea. Madang's government engaged an oil spill response consultant from Sweden, Dr Alex Mojon to investigate contamination of local waters and fish species. A report into the matter by PNG's Conservation and Environmental Protection Authority is still pending. But, a lawyer working with Madang's government, Ben Lomai, told Johnny Blades that Dr Mojon's probe identified catastrophic impacts from mine waste on the marine environment.

Ben Lomai: Because there was some issues within the area that fish were dying, babies had deformed fingers and toes, a couple of people died within the area by eating fish, etc, etc. So they were trying to ascertain what was the cause? I mean, we obviously... with the report now from Alex, and also, we might be able to have this CEPA (Conservation and Environmental Protection Authority) report coming in. All this will be confirmed and then compared and then Ramu / MCC will take a position on it, perhaps.

Johnny Blades: Should the mine operations be closed until this is sorted out?

Ben Lomai: Yeah, well, you know, there is very good evidence that so the court the only way is to have the mind closed for a period of time for have six months to remedy the situation, and then can get the mine open again, that's what is done in Pujiang city in China. They passed a law that if you have not complied with the Waste Management (rules), they come in and shut the power down, tell you to do all these things and inspect, come and check, recommend that you have done it and then they come and put the power back on for you to work. It's very, very strict. I don't understand why they come here and they don't do it here in this country.

Johnny Blades: Well this is a test, isn't it, for Papua New Guinea's environmental agencies and its courts?

Ben Lomai: Yeah I have actually briefed a QC in Sydney. I told him that look, I need another report to back up the case because the preliminary report is just showing some indication that yes, there's some contamination but the second report is very solid, because it indicates the level of contamination is very high in toxicity in all 28 samples that were collected by Alex. And if we have the opinion that there was a cause for the environmental claim then we should be able to file it before the end of October.

Johnny Blades: What has MCC's response been so far?

Ben Lomai: Well, MCC has not come back yet. They said they wanted to see the CEPA report, and then they can they can comment on it.

Johnny Blades: Is there a danger that there will be more more reports required, more assessments, and that it'll drag on?

Ben Lomai: Yeah, absolutely. Because we need to really ascertain the actual contamination. We've got a report from Alex, and Alex is not doing it on his own. He's got a team of environmental scientists and professors that are working with him. We welcome the MCC to also have its own environmental scientists to do their investigation. We also... by law, CEPA is obligated to produce a report and they should have done that a long time ago when the issue was raised. But anywhere they said the report is nearly completion. So we'll wait for them to do that. At this stage, we're not putting the blame on the MCC yet. We want to work with them in a friendly way so that we can resolve for the benefit of the people. That's the approach that we're taking. But if they are not cooperating, then perhaps we can be able to look at other options.

Chinese Owned Ramu NICO brushes aside Basamuk report NBC News, PNG Today, 12 October, 2019



The Chinese owned Ramu Nickel company who is developing the Ramu Nickel Project in Madang has brushed aside the <u>scientific findings</u> of the Switzerland scientist who was engaged by the Madang Provincial Government to carry out an investigation into the Basamuk Spillage. Swissbased scientist, Dr Alex Mojon, whom the Ramu Nickel Company described as a self- proclaimed scientist, revealed his findings on Wednesday this week in Port Moresby. The company said Dr Mojon's investigation was not authorized by the Conservation and Environment Protection Authority (CEPA) - the regulated government body to conduct such investigations. Dr. Mojon was engaged by the Madang Government following recent reports of dead fish being discovered in Madang waters and people developing complications after allegedly eating contaminated fish and swimming in the sea.

Findings by Dr Mojon revealed that Basamuk has suffered extensive pollution over the years, as a result of Ramu Nickel Mine carelessly dumping its wastes into the Basamuk Bay over the years. However, Ramu Nickel says it will only accept the officially sanctioned report from the CEPA investigation. The company also says it doubts whether the scientific report and Madang Provincial Government's engagement are independent in nature. A statement from the company states that the Swiss Report may be independent for the Madang Government but not for Ramu Nickel and they will out rightly ignore the findings.

Ramu NiCo is also asking CEPA and other government authorities to confirm if the Swiss scientist was authorised to collect samples and produce - what it says is a 'damaging report' towards a genuine foreign investor. The Company also said it was not consulted by the Swiss scientist before visiting Basamuk to collect samples of dead fish, water, sand and pebbles for testing. Meantime, Minister for Environment and Conservation Geoffrey Kama told NBC News, the report into the 'Basamuk spillage' by CEPA will be presented in Parliament next week. Mr. Kama says the National Executive Council has already approved the report.

How do miners dispose of their waste in the sea?

Melanie Burton, Reuters, October 11, 2019

Sea disposal of mining waste could spread as Indonesia weighs adopting the technique for new nickel projects, as Papua New Guinea is doing for a gold mine proposed by Australia's Newcrest Mining. The management of mining waste has drawn attention since two dam disasters in Brazil,

and after <u>red mud spilled</u> into Papua New Guinea's Basamuk Bay from Ramu Nickel's operations in August. An expert in chemical contamination has called test results from the Ramu Nickel spill "alarming," <u>media said this week</u>. That spill resulted from an operational failure, however, rather than an issue with tailings management. Proponents say deep sea tailings placement, which pipes unwanted pulverized rock into the sea, is cheaper and less harmful, especially on tropical islands where earthquakes or heavy rain limit storage on land, near deep sea trenches. Critics say the impact of such marine disposal is poorly understood. Fewer than 20 of the world's 2,500 mines use the method to dispose of tailings waste, comprising rock, microscopic unwanted metals and traces of processing agents, such as cyanide. Here are answers to some common questions, drawn from two research papers by Australia's science bureau, the CSIRO.



MCC's Basamuk Refinery in Madang pumps waste from the Ramu mine directly into the ocean

WHAT IS DEEP SEA TAILINGS PLACEMENT?

Mining waste goes down a pipe 100 m (328 ft) or more offshore designed to sink rapidly to even greater depths, such as those off the continental shelf. The waste settles on parts of the ocean floor believed to be home to few creatures. That keeps the waste out of the ocean's most productive surface layer, where sunlight drives photosynthesis, and sealife is most abundant. After the mine has closed, advocates say the deposit area will gradually be recolonised by the marine life and bacteria that were there before, as they now move back from surrounding areas.

WHEN WAS IT FIRST USED?

The first commercial use of deep sea tailings placement was at the Island Copper mine on Canada's Vancouver Island in 1971 to 1996. Industry regarded that as a success, though it was also found to have affected the lake's biodiversity. Some other early mines, such as Greenland's Black Angel lead and zinc mine, however, contaminated surrounding water bodies.

WHERE IS DSTP USED NOW?

- The <u>Lihir gold mine</u> in PNG run by Newcrest Mining. The Melbourne-based miner also proposed DSTP for its <u>Wafi Golpu project</u> with South Africa's Harmony Gold.
- The <u>Simberi gold mine</u> operated by Australian miner St. Barbara in PNG's New Ireland province.
- The Ramu nickel mine and plant run by Metallurgical Corporation of China in PNG's Madang Province.
- Batu Hijau, Indonesia's second largest copper mine, run by PT Amman Mineral Nusa Tenggara.
- Australia's Kingston Resources is considering reopening PNG's Misima gold mine and using DSTP.

WHAT ARE THE ISSUES?

ECOLOGICAL DIVERSITY: A quarter of the world's coral reefs faced rising exposure to sediments and nutrients, boosting stress from climate change and ocean acidification, Australia's science agency said in 2016. Greater sediment could smother coral or choke off sunlight or oxygen, it said.

SUSPENSION: Fine dust or metal particles remain suspended in the ocean instead of settling on the sea floor. They can "shear off" in plumes, widely dispersed by ocean currents, and travel between layers of varying salinity or temperature. The impact on marine life is not fully understood, but coral near the Lihir tailings disposal site suffered a "substantial impact," according to the paper. Plankton could be trapped in suspended solids and fine particles could clog the gills of fish, it added. MIGRATION: Marine animals could carry trace elements of mine waste into the food supply chain after ingesting them and then moving to shallow waters from the deep ocean.

DEEP SEA: Wider use of DTSP could affect deepwater canyons and abyssal or underwater plains that are high in biodiversity, according to the research.

RECOLONISATION: Ocean warming and acidification could hamper efforts to recolonise a DTSP area, it added. (Reporting by Melanie Burton; Editing by Darren Schuettler)

PNG Govt says, no damages to Marine Life despite slurry spill by Ramu Nickel Mine PNG Mining News, 11 October 2019

Papua New Guinea government has denied poisioning [sic] of marine life in Madang's Basamuk area despite slurry spill by Ramu Nickel Mine. PNG's Minister for Environment and Conservation Geoffrey Kama has finally revealed that the government investigation into the slurry spill by the Ramu Nickel Mine has found there was no major damage to the sea and surrounding environment. Mr Kama told Parliament this morning, the CEPA report consists of samples sent to Brisbane Australia for testing. After two weeks the results were sent back and further verified. The environment Minister says their report, approved by NEC, now reveals there is no major pollution caused by the spill, and that the color change in sea water should not be a concern, it's just a color change.

Obviously this did not go down well with several Members of Parliament who stood with point of orders demanding the Minister to explain why the CEPA report reveals no damage when there are evidence of fish dying in surrounding communities. Member for South Fly,Seki Agisa, questioned on a recent <u>finding released just this week</u> by international scientists engaged by the Madang Provincial Government who found evidences of toxic contamination in samples of water, soil and plants. The South Fly MP, asked if the government can cross check with this independent report. But the Environment Minister refused to give clarity standing firm on the report produced by CEPA that there are no major damage caused by the slurry spill last month.

Expert says lab results from PNG Ramu nickel spill 'alarming': report Melanie Burton, Reuters, October 11, 2019

An expert in chemical contamination has called test results from the Ramu nickel spill into Papua New Guinea's Basamuk Bay in August "alarming," according to a local media report on Thursday. A spill at Metallurgical Corp of China (MCC)'s nickel processing plant located in Madang, on the country's northeastern coast, caused the surrounding ocean to turn red and left a muddy residue on the rocky shoreline, according to locals and photographs of the incident at the time. The spill occurred as a result of an operational and administrative failure, a government official said at the time. MCC now faces compensation claims and calls from the local governor to close the plant. Environmental remediation expert Alex Mojon took samples from the bay in September, according to a news report from Papua New Guinea' EMTV Online.

Mojon has previously worked for Swiss oil remediation company Man Oil Group AG as its chief scientist, according to his LinkedIn profile. "I have to tell you that it's alarming ... there is evidence that Ramu Nico is not managing their waste and that is a fact. I have obtained the results from the laboratory from Germany ... I am shocked," Mojon told local media, according to EMTV Online. All of the 28 samples tested were found to have toxic levels of heavy metals contamination, the EMTV report said, citing Mojon. Mojon did not immediately respond to emailed requests for comment. A spokesman for Ramu Nickel did not have an immediate comment while a call to MCC went unanswered. But an executive in August said that company management was "extremely concerned" about the incident and that it would address compensation once its investigation was complete.

An investigation by the country's Conservation and Environment Protection Authority (CEPA) is due to be made available in the next week, according to media reports. In a televised press conference on TVWAN news, Mojon said that some of the spillage had not dispersed and that local residents had complained of smoke from the plant that irritated their skin and eyes. "We welcome a copy of the report produced by Alex Mojon to be presented officially to CEPA, MRA and other interested organizations before we could make any comments," said Jerry Garry of Papua New Guinea's Mineral Resources Authority told Reuters. "We cannot fully appreciate and comment on his report until a copy and presentation is made to CEPA," Garry said.

P'nyang separate LNG: PM

By GYNNIE KERO, October 11, 2019 The National

PRIME Minister James Marape, pictured, says the P'nyang gas field in Western will not be a part of the US\$13 billion (K43 billion) Papua LNG project in Gulf. He was responding to a question by North Fly MP James Donald in Parliament yesterday on whether the gas field in Western would be part of the Papua LNG. Marape said the Papua LNG encompassed petroleum retention license (PRL) 15 only. The P'nyang field is located within PRL3 which covers 105,000 acres (425 square kilometres). He said if joint venture partners of the country's second LNG project wanted to bring on board P'nyang, there would be new discussions. He said the Government would not make any more concessions. "Partners (Papua LNG project) are embarking on the two trains they proposed to develop on PRL 15.

"P'nyang is totally outside of Papua (LNG) project," he said. Marape added that the P'nyang reserves were up for discussions with industry players who were already in the country. "Our Government is discussing with those who are already in the country, in the industry. "If they want to discuss P'nyang or stranded fields outside of what is PNG LNG agreement or Papua LNG agreement, then it's a business discussion that will take place. "I've informed the industry players especially the three major players (ExxonMobil, Total and Oil Search) that Government will no longer give concessions for P'nyang or any more projects going into the future. "PNG is no longer a Greenfield investment destination. "P'nyang is not part of Papua LNG. "We (Government) are committed to Papua LNG," Marape said.

Shares from Kumul Petroleum going towards budget: Marape

October 11, 2019, The National Main Stories

FIFTY per cent of the dividends received from Kumul Petroleum Holdings Ltd (KPHL) will go towards supporting the country's budget, says Prime Minister James Marape. He said this in Port Moresby on Wednesday during the State-owned entity's annual general meeting. Marape said it followed a Cabinet decision on the breakup and distribution of dividends from the revenue collected

by KPHL. "There was a recent Cabinet decision we took and I would like the board to embrace that decision because that is where we intend to take Kumul Petroleum when we shape a sister company, Kumul Mining," he said. He said in the Cabinet decision, a breakup and of the distribution of dividends from the revenue collected by Kumul Petroleum was outlined. Marape said the distributions were specifically addressed in the Cabinet paper and again urged the board to embrace that decision. The breakup is as follows:

- 50 per cent to Budget support;
- 20 per cent to administrative cost (up by 5 per cent from current 15 per cent);
- 13 per cent saved for call on cash when investment decisions are being made;
- 7 per cent into the Sovereign Wealth Fund for the country; and,
- 10 per cent towards assisting church-run education and health services throughout the country.

Marape was also presented a dividend of K100 million by the KPHL chairman Andrew Baing. Marape thanked KPHL's board, management and staff for working hard to bring the company to what it was today. "So far so good, you have come in a short space in time, benefiting from the five years of consistent production of the two trains of gas," he said. "A revenue envelope of about K5 billion that equates to an average a K1 billion every year." He said that was the country's benefits from the 16.77 per cent participation stake in the present two trains of LNG project and he appreciated the fact that KPHL as a beneficiary in the PNG LNG Project was contributing to the economy. He also wanted Kumul Petroleum to detach from investments that could be done by landowner companies such as drilling and become an equity player in the oil and Gas industry.

Ramu NiCo disputes findings from Swiss scientist

October 11, 2019, The National Business

THE Ramu NiCo project has disputed the findings of a Switzerland-based consultant into its waste disposal method and the alleged environmental impact at its Basamuk refinery. Ramu NiCo management said Swiss scientist Dr Alex Mojon, who was engaged by the Madang provincial government, was not authorised by Cepa (Conservation Environment and Protection Authority), the regulated state body mandated to investigate the Basamuk slurry spill that occurred on Aug 24. "We will only accept the officially sanctioned independent investigation report from Conservation Environment and Protection Authority, which we believe is ready and the Minister concerned will release soon," the company said.

"We doubt whether the scientific report and Madang provincial governments' engagement are independent in nature. Of course it is only independent for them but not for official purposes and we out rightly ignore the findings." Mojon carried out the investigations on the sea waters at Basamuk Bay before and after the spill. The report was presented in Port Moresby on Wednesday. The company said the release of Mojon's report was in direct defiance of an official government-sanctioned report whose findings were yet to be presented. "Only after Cepa, through the Environment Minister, presents its findings can anyone including the Madang government and challenge its findings and not them comeing out prematurely like this."

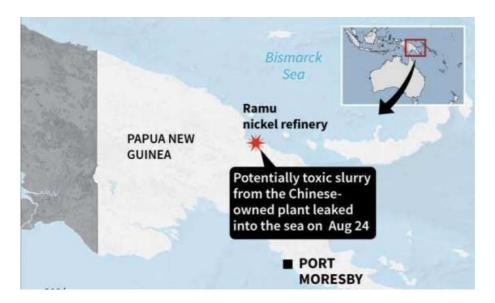
PNG's Ramu nickel mine mismanaged waste - probe

The Ramu nickel mine in Papua New Guinea's Madang province has been found to have mismanaged toxic waste it dumps into the sea.

Radio New Zealand, 11 October 2019

The provincial government engaged an oil spill response consultant from Sweden to investigate recent discolouring of local waters and the deaths of fish species. Local media is reporting Alex Mojon saying he was shocked by the catastrophic impact of mine waste on the marine environment. In August, an overflow of 200,000 litres of 'toxic slurry spill' off the Rai Coast turned the sea red and was linked by locals to numerous health problems. But the toxic legacy stretches back about seven years. Dr Mojon said the mine operator had been releasing millions of litres of toxic waste annually into the sea and expecting it to disappear. Earlier this month a local spokesman for the mine owner Metallurgical Corp of China assured the public that its Deep Sea Tailing Placement system in Basamuk Bay was safe. However, Madang's government is now considering legal action against the company. At the start of the month, the Madang provincial administration temporarily banned sale and consumption of fish in the province, following the reported death of a local man after he ate poisoned fish.

Expert Says Basamuk Spill 'A Catastrophe' Elias Nanau, Post Courier, October 10, 2019



An expert engaged by the Madang Provincial Government to investigate possible environmental and health issues associated with the operation of the Ramu Nickel Mine says it's a "catastrophe." Dr Alex Mojon who has done environment impact and assessment studies in Africa, Europe, Asia including China for over 30 years was with Madang Governor Peter Yama yesterday when he made the statement. A report is expected to be published in less than a week, with two investigations already being carried out by Dr. Mojon collaborating with other scientists. One was carried out before the slurry spill occurred and another recently after the spill of an estimated 200,000 cubic metres of waste turning the sea red. Mr Yama said his government decided to engage what he described as "impartial experts" because he alleged that the office of the Conservation and Environment Protection Authority (CEPA) has been compromised and the veracity of their report has to be tested. "The company has a strong influence on the report," he said. Mr Yama was irate and stressed that fishery lives were being affected as far as the borders of Morobe and the Karkar, Long and Bagabag islands northwest of Basamuk.

"One or two people have died," he said, despite assertions to the contrary by a local health worker in the area and supported by the miner MCC. "One of my ward councilors of Astrolabe Bay is at the intensive care unit." He said he became ill after eating contaminated fish," Yama said. Dr Mojen believes evidence strongly point at contamination being the cause of a number of medical conditions. This included deformity in babies born around the vicinity, saying his investigations focused

on the Kurumbukari mine and tracked the pipeline to Basamuk Deep Sea Tailing Disposal set up less than 500 meters from the sea, he interviewed villagers and flew to areas as far as Karkar. "I was shocked," he said. "We found it to be a catastrophe. There is evidence that Ramu Nickel Mine is not managing waste well."

According to him, the samples were tested at a laboratory in Munich, Italy. An irate Mr Yama said yesterday he would protest by not attending Parliament sessions and he will demand Prime Minister James Marape to intervene. "We can't gamble with the lives of the people," he said firmly. He said based on financial reports, the Mine has made K27 billion since its operations and the Madang Provincial Government received only K5 million. Mr Yama said the Kurumbukari mine is on tax holiday. According to Mr Yama, Lomai and Attorney has been engaged to act swiftly based on additional credible evidence before it to file a lawsuit on environmental issues and an Australian QC is likely to be involved. Mr Yama' stance yesterday was; "We will go for the closure of the mine."

Yama wants Ramu mine shut down

October 10, 2019, The National Business

MADANG Governor Peter Yama has called for the closure of the Ramu NiCo mine. It follows a report by independent investigators brought in by the Madang provincial government to investigate Ramu Nico's deep sea tailings placement. Yama said the independent scientists led by Dr Alex Mojon would also be releasing a report on their findings of the recent slurry spill at Ramu Nico's Basamuk mine. The company could not be reached for a comment. The Conservation and Environment Promotion Authority (Cepa) report on it is still incomplete. Yama said even though the province understood the importance of mines and extractive industries for the economic benefit of the province and the country, damage to the environment should not be ignored.

"Conservation and Environment Promotion Authority failed to protect the environment, allowing the operators to dump toxic waste directly into the environment," he said. So from my observation, and I went down there two or three times to Basamuk and the coastline of Madang, I see a lot of the effect of the slurry. "The grass and coconut trees are dying away. "The information I am getting from the people on the ground that the food, bananas are all dying." Yama said the spill at Basamuk "happened three times (and) they have been keeping it a secret". "Cepa have not been giving us the full report of what happened twice, now is the third time," he said.

KPHL remits K4b to State

By GYNNIE KERO, October 10, 2019, The National

KUMUL Petroleum Holdings Ltd remitted more than K4 billion to the Government between 2014 and 2018, according to board chairman Andrew Baing. It included dividends, return of capital, Union Bank of Switzerland (UBS)-related cost, taxation and other corporate social investments. Baing told the company's annual general meeting in Port Moresby yesterday that the K4.2 billion was remitted to the State on the back of a total revenue of K5 billion earned by Kumul Petroleum during the same period. The K4 billion is broken down as: Dividend K1.33 billion; Return of Capital K1.16 billion; Oil Search Collar related cost K1.13 million; Corporate Tax K300 million; Government Support K73 million.

Baing said the figure represented 78 per cent of cash available to Kumul Petroleum from the PNG LNG project and other revenue sources such as Hides Gas. The balance of the funds were reinvested over the five years in Kumul Petroleum, including the Kumul Petroleum Academy for Oil and Gas Skills Development, Port Moresby 58MW Gas-Fired power station under NiuPower, reinvest-

ment in existing or discovered and known oil and gas fields, Hela and SHP rural electrification programme, staff development and education, student sponsorships for university studies, graduate development programmes, salaries and wages and consultancy.

Baing said Kumul Petroleum's remittance represented more than three times the total tax paid by the PNG LNG project to the Internal Revenue Commission over the same period. Kumul Petroleum's net profit last year was K595 million but it expects a better result this year. Total dividend paid last year was K300 million or more than 62 percent of the net profit. There will be a dividend of K100 million for this financial year. Prime Minister James Marape who was also at the meeting said Kumul Petroleum would no longer invest in greenfields as per a National Executive Council decision. "Kumul must focus on making money, reconfigure its investment plans and become a bigger equity player," he said.

Deep sea sponges may hold key to antibiotic resistance

The scientists who discovered antibiotic properties in a deep-sea sponge warn that such breakthroughs could be lost in the face of mineral exploitation Jessica Aldred, China Dialogue, October 9, 2019



A group of "Venus' flower basket" glass sponges, with a squat lobster in the middle (Image: NOAA)

Prof Mat Upton is a medical microbiologist and Dr Kerry Howell is a deep-sea marine ecologist. At the University of Plymouth they have discovered antimicrobial properties in bacteria that live in a species of deep-sea sponge – a potential breakthrough in the fight against antibiotic-resistant superbugs. But they warn that such potential could be lost in the drive to exploit the ocean floor for minerals

Jessica Aldred (JA): What did you discover and how?

Mat Upton (MU): We've grown bacteria from the sponges that Kerry has retrieved from the deepsea floor and tested them in the lab to see if they kill other bacteria.

Kerry Howell (KH): Sponges are one of the most promising sources of potential medical uses, with 145 reported antimicrobial compounds isolated between 2001 and 2010.

However, almost all research undertaken so far has been on sponges from shallow waters. At Plymouth we have begun to look at a number of different deep-sea sponge species. One that has shown promising results is from the genus Euplectella, found between 700 to 1,700 metres deep in the north-east Atlantic.

It is one of the best studied deep-sea regions in the world, but for many of the species we are working on, we don't even have the most basic information beyond their identity.



A medically promising glass sponge species from the genus Euplectella, retrieved by Kerry from the Atlantic seabed and potentially new to science (Image: Plymouth University, Marine Institute Ireland, Eurofleets 2)

MU: By combining our expertise, we have begun to investigate the unknown microbiomes of several deep-sea sponges. Through this work, using cutting-edge DNA-sequencing technologies and novel strategies to maximise the diversity of bacteria we can grow from sponge samples, we have been able to isolate novel bacteria that produce antibiotic compounds that kill drug-resistant pathogens, including superbugs like MRSA and *E coli*.

JA: Antimicrobial resistance (AMR) is one of the biggest threats to global human health. How do your findings help?

MU: The risk posed by AMR requires that we find new antibiotics to fight drug-resistant infections caused by antibiotic-resistant bacteria. By looking in new natural environments, we may find new antibiotics that work in different ways to the ones we currently use.

In the case of our work on deep-sea sponges, it has been demonstrated in a number of studies that individual sponge species harbour relatively specific bacterial populations. The number of sponge species present in these unseen deep-sea environments has not been determined. It is likely that there are many new to science in these locations, each one with the potential of hosting new bacteria. These novel bacteria in turn are likely to produce antibiotics, and other medicines, that are new to science. We have only looked in detail at the microbiomes of two or three different sponge species and we've already potentially found some new antibiotics. Expand this to other sponge species we have not even seen and the possibilities are clear.

We've also only just begun to look at antibiotic compounds. There are many other lines of enquiry into medically relevant compounds that we've not started. Sponges and their microbial populations can produce anti-cancer compounds, analgesics, immune modulators and many other bioactive compounds.

KH: There is a real possibility that with the onset of deep-sea mining we could be destroying species that have important biomedical potential before we even know they exist. We may also be having an impact on the other ecosystem services that the deep sea provides, like climate regulation. At present our lack of understanding means it is difficult to predict potential outcomes beyond the obvious negative consequences. This, in turn, makes it difficult to make informed decisions about how this new industry operates and is managed.

JA: How significant is your discovery?

MU: By looking at the DNA of the bacteria that we have grown from the sponges, we can see that they are not the same as anything that has been grown previously. Some are closely related to previously seen bacteria, but others appear to be really quite novel, possibly new species. We have purified some antibiotic compounds from these bacteria and they are also new to science.

One way to ensure that new antibiotics work against the current drug-resistant superbugs is to use completely new antibiotics. There have been no new classes of antibiotic used in clinical therapy in the last 30 years. The antibiotic compounds we're finding could be of new classes, giving them a head start against drug-resistant bacteria. This is very significant.

JA: The International Seabed Authority met in July to continue negotiations over a mining code that would govern eventual exploitation. Would mining threaten these sponge species? KH: Deep-sea mining is a new industry in development. There are three types of deep-sea mining resource recognised, all pertaining to different deep-sea habitats. Polymetallic nodules are found on the abyssal plain, polymetallic sulphides are present as hydrothermal vents, and ferromanganese crusts on some seamounts and ridges.

All of these different resources offer a potential supply of important metals, rare earth elements and other minerals that are used in electronics and the renewable energy sector. We currently stand on the brink of exploitation of the deep sea for these resources. But as we may gain in one way, we potentially lose out in another.

A map showing what could be mined and where Clarion Clipperton Zone PARTIFIC DEEAN POlymetallic nodules Cobalt-rich crusts Polymetallic sulphides / vents Chinadialogue ocean

We know that society's wellbeing is linked to the health of the deep sea through a wide range of ecosystem services as diverse as climate regulation to food security. As a result of our work, we now know that deep-sea species may also hold the key to the problem of antibiotic resistance. What we don't know is the impact mining will have on the deep-sea ecosystem.

Mining is, by its very nature, destructive, and will result in the destruction of species and habitats. Our knowledge of deep-sea species and habitats remains sparse. This is perhaps highlighted by the fact that recent studies of the main area licensed for polymetallic nodule mining, the Clarion-Clipperton Fracture Zone in the central Pacific, have found up to 90% of species sampled were new to science.

JA: More and more scientists are calling for a moratorium on deep-sea mining until more is known about the species and the potential damage that mining will cause. What would you like to see happen?

KH: Our ecological knowledge of the deep sea has not kept pace with industrial development. There needs to be significant coordinated global effort and investment in research to enable us to forecast potential impacts of mining activities, as well as effects of cumulative stressors such as mining, climate change and fishing acting together.

Only then can we hope to effectively manage, not just this industry, but our oceans as a whole in line with UN Sustainable Development Goal 14. The UN Decade of Ocean Science (2021-2030) offers a 10-year period in which such efforts could be made.

A 10-year moratorium on mining in the Area (international waters that belong to no one nation), coupled with a global programme of targeted deep-sea research, would be the precautionary way to move forward.

JA: The high seas treaty that is currently being negotiated includes who shares the rights to marine genetic resources. Will this treaty help the situation?

KH: The treaty will support the sustainable management of areas of biodiversity beyond national jurisdiction by providing legal mechanisms and processes through which coordinated management actions, including the designation of marine protected areas, can happen. At the moment human activities in these areas are managed by a plethora of different organisations and there is no mechanism for a coordinated approach.

For example, we could have a situation where a regional fisheries management organisation has closed an area to bottom trawling for the protection of vulnerable marine ecosystems, but that same area is then licensed for deep-sea mining exploration. The same area could also support species that have promising medical uses, or be very important to other ecosystem services. We need to take a holistic approach but such an approach needs legal processes and mechanisms to be put in place, and that is what I hope this treaty will do. It will also hopefully mean that all nations benefit from potential discoveries, not just those with the technology to exploit these very difficult to study deep-sea habitats.

Schlag ins Wasser. Neue Debatte um Bergbauprojekte in der Tiefsee

Von Leon Kirschgens, Süddeutsche Zeitung, 8. Oktober 2019

Ein gescheitertes Bergbauprojekt in der Tiefsee belebt eine alte Debatte neu: Soll am Meeresgrund geschürft werden, um Erkenntnisse zu sammeln - oder soll mit dem Abbau der Rohstoffe gewartet werden, bis mehr über die Folgen bekannt ist?

Es war ein prestigeträchtiges Vorhaben - von Umweltschützern kritisiert, von Befürwortern als geradezu zukunftsweisend gelobt. Doch dann folgte das "Totalversagen", wie Papua-Neuguineas Ministerpräsident James Marape es ausdrückte: Das Tiefseebergbauprojekt der kanadisch-australischen Firma Nautilus Minerals ist wegen Geldmangels gescheitert. Seit Jahren hatte das Unternehmen geplant, die Metallerz-Lagerstätte "Solwara 1" in der Bismarcksee in 1700 Metern Tiefe vor der Küste Papua-Neuguineas auszubeuten, um an seltene Rohstoffe wie Kupfer, Kobalt oder Zink zu gelangen. Die Regierung des Pazifikstaates unterstützte das Projekt mit etwa 100 Millionen Euro. Doch dann verlor Nautilus Minerals 2018 ein Spezialschiff, das die abgebauten Rohstoffe mit Pumpen aufgefangen sollte. Nautilus ging das Geld aus, das Schiff wurde an ein Konkurrenzunternehmen verkauft. Das Unternehmen hat inzwischen Insolvenz angemeldet.

Staatschefs aus angrenzenden Inselstaaten im Pazifik, wie Fidschi und Vanuatu, nehmen den Fehlschlag nun zum Anlass, die Debatte um ein Moratorium neu zu entfachen. Untermeerische Lagerstätten gelten zwar als zukunftsträchtig, der Anteil an wertvollen Metallen für die Elektroindustrie ist dort deutlich höher als in Landlagerstätten, deren Reserven knapper werden. Die Projekte sind wegen der weitgehend unbekannten ökologischen Folgen jedoch seit Langem in der Kritik. Immer wieder forderten Umweltschützer, den Tiefseebergbau solange auszusetzen, bis es ausreichende Erkenntnisse über die Umweltfolgen gibt. Und die Wissenschaft gibt den Kritikern zu einem wesentlichen Teil auch recht: "Wir wissen, dass der Tiefseebergbau auf die unmittelbar betroffene Region negative Auswirkungen hat, ähnlich wie beim Tagebau an Land wird mit den Rohstoffen auch das Ökosystem am Meeresboden entfernt", sagt der Biogeochemiker Matthias Haeckel vom Helmholtz-Zentrum für Ozeanforschung in Kiel. Der Abbau produziere zudem Sedimentwolken mit Erzpartikeln, die für die Fauna schädlich seien.

Auf der anderen Seite sehen gerade auch Forscher die Forderung nach einem Moratorium kritisch. "Wir können noch keine Aussage darüber treffen, wie weit sie sich durch die Ozeanströmung am Meeresboden ausbreiten und das Ökosystem außerhalb der Abbauflächen beeinträchtigen." An die dafür nötigen Daten könnten Forscher nur durch Probebohrungen in der Tiefsee gelangen. Eine Zwangspause würde daher auch die geforderte Erkenntnissuche zu den Folgen erschweren. "Ein Moratorium ist nur dann sinnvoll, wenn die Forschung in der Tiefsee weiter gefördert wird - unabhängig von wirtschaftlichen Interessen von Staaten oder einzelnen Unternehmen", sagt Matthias Haeckel. "Es bringt nichts, zehn Jahre auf jegliche Tiefseearbeiten zu verzichten und hinterher noch immer keine Aussage über die ökologischen Folgen treffen zu können."

Der Biogeochemiker hält die Chancen aber ohnehin für gering, dass sich die Staaten jemals auf ein Moratorium gegen den Tiefseebergbau einigen werden. Noch spiele diese Form des Bergbaus eine zu geringe Rolle, als dass sich Politiker jenseits der betroffenen Regionen für einen generellen Stopp der Projekte stark machen würden.

NZ support for seabed mining on offer in Pacific

Despite uncertainty over the environmental impact, some Pacific countries are pushing ahead with plans to mine their seabeds for minerals - and New Zealand has offered a helping hand. Sam Sachdeva, Newsroom, 8 October 2019



Seabed mining in the Pacific has become a controversial topic - but New Zealand is willing to support nations who want to mine if they ask for support. File photo: Getty Images

The New Zealand Government will help Pacific countries carry out seabed mining within their marine territories if asked, despite calls for a 10-year moratorium on the controversial practice. The Government has refused to reveal which countries it has already assisted, with one environmental group urging New Zealand to reverse its policy and protect the marine environment in the Pacific. Advocates of the extraction activity have argued it can provide a sustainable and replenishing supply of minerals, while critics have expressed fears about the impact of mining on aquatic habitats and the destruction of the ocean floor.

In New Zealand, a company planning to dredge the ocean floor for minerals off the coast of New Plymouth has headed to the Court of Appeal to win back a mining consent. But the topic is of concern in the wider Pacific region, with some countries calling for a moratorium on the practice until the environmental impacts are better understood. In a May briefing to Foreign Affairs Minister Winston Peters, officials from the Ministry of Foreign Affairs and Trade set out New Zealand's approach to any requests for support from Pacific nations planning to mine the seabed in their exclusive economic zones (EEZs).

The countries' sovereign rights to utilise the natural resources within their EEZs had to be balanced with protecting the environment and biodiversity, as well as the needs of future generations. With

early indications that the technology and investment from seabed mining in the Pacific would come from "external actors" - a potential reference to China, which has developed a growing interest in seabed mining- officials said countries would need robust legal frameworks, governance structures and environmental protections in place before entering into any agreements. It was also important than any deals protected the country's sovereignty and provided a fair financial return. New Zealand agencies like the Department of Conservation and the Ministry of Business, Innovation and Employment could help Pacific countries with establishing regulatory, environmental and governance processes for seabed mining.

Support in those areas "would not be inconsistent with the New Zealand Government's domestic policies for the sustainable management of non-living natural resources," the briefing said. "New Zealand will not actively encourage seabed mining in the EEZ of Pacific Island partners, but when approached for assistance New Zealand Government and agencies can support [them] to ensure that environmental protection and good governance frameworks are in place to reduce risk to the marine environment and national interests." Among the key principles for New Zealand when considering any requests for support were promoting the sustainable management of natural resources, protecting the environment from pollution, and supporting countries to meet their obligations under international law. Any support from New Zealand should also align with the Pacific Island Forum's regional ocean objectives, the briefing said.



Fiji Prime Minister Frank Bainimarama is among the Pacific leaders calling for a moratorium on seabed mining in the region

However, Pacific leaders have been at odds over the issue, with some regional heavyweights supporting calls for a temporary ban. Speaking at the Pacific Islands Forum in August, Fiji Prime Minister Frank Bainimarama called on leaders to support a 10-year moratorium from 2020 to 2030, which he said "would allow for a decade of proper scientific research of our economic zone and territorial waters". Papua New Guinea Prime Minister James Marape has also indicated he would support a moratorium, with his country attempting to recover more than NZ\$174 million which it sunk into a failed deep sea mining project. However, the Cook Islands has announced it will "take the lead" on seabed mining and start activity within five years, with Deputy Prime Minister Mark Brown citing a potential reduction in development aid as a driver for the move.

Greenpeace NZ oceans campaigner Jessica Desmond told Newsroom that New Zealand's position was concerning, with seabed mining carried out using an experimental technique which had never been tested in New Zealand. "Around the world they're kind of looking for the precedent setting of where it's going to be allowed and how it's going to happen...we don't know what the environmental impact of this practice is, other than it will be pretty damaging." Desmond said New Zealand needed to support the calls for a moratorium from countries like Fiji, given the Pacific's dependence

upon their ocean ecosystems. "We haven't consented it in New Zealand, and...saying 'we're not going to do it here but we're going to facilitate you guys to do it' seems quite off to me."

It was "short-sighted" for Pacific nations to turn to seabed mining for wealth generation, given the long-term damage such activities would cause, she said. "If you're looking at a small Pacific Island nation who depends so much on the ocean, even at a community level...sucking up the seabed and dumping everything back down is going to be much more destructive in the long-term in terms of what their marine resources can supply for them." Asked for comment on the Government's stance and why it was not backing a moratorium, Peters' office referred Newsroom to MFAT for comment. In a written statement, an MFAT spokeswoman said the Government was "not in a position to release information about countries who might have requested assistance", but reiterated the need to balance Pacific sovereignty with environmental protections.

Jeopardising environment will impact lives: Barker

October 8, 2019, The National

PAPUA New Guinea is largely a rural-based society and jeopardising the environment would have a severe impact on the lives of the majority, Institute of National Affairs executive director Paul Barker says. Barker expressed this concern in Port Moresby last Tuesday in light of the widespread reports of fish and sharks being found dead in the seas of Madang after the slurry spill incident at Ramu nickel mine's Basamuk refinery on Aug 24. "Mining invariably has environmental impacts and some countries like Costa Rica have chosen not to permit mining," Barker said. "But most, including PNG, allow some under controlled and supervised conditions. "Clearly, if the potential impact is going to be excessive, or the benefits inadequate, the government and local communities need to be prepared to reject mining operations, or specific practices. Those may include practices related to waste management, including riverine or offshore waste disposal."

Barker said technology approval on the use of tailings dams, standards, engineering tests, monitoring and oversight and accident planning was critical, with clear requirements for capacity and delineation of responsibilities. "Unfortunately, in the case of the recent Basamuk leakage, the oversight, management and public awareness systems have so far shown themselves to be deficient," he said. "PNG is largely a rural-based society. "Most people live in rural areas and depend on the health of their land and land use, or rivers and clean marine habitats. "Jeopardising these environments has a severe impact on the often challenging lives rural people."

Muthuvel Opts To Stop Solwara 1

Gorethy Kenneth, Post Courier, October 7, 2019



The government is faced with a major challenge on the country's Solwara 1 project of which K400 million had already been spent while it faces legal implications in the Canadian Court. State Owned Enterprise Minister Sasindaran Muthuvel in his recent press conference told reporters that the State was faced with K1.8 billion debt to commercial banks and other service providers and that his personal view was to discontinue the Solwara 1 project. "You see, B-Mobile owes BSP K96 million and KCH owes ANZ another K130 million, first and foremost, we need clarity on this in order to deal with those costing us millions," he said. "Then we have another K375 million that has sunk into the ocean – the Solwara 1 project. The government has already spent over K400 million on this Solwara 1 project and as you know, in the recent news, we lost the case with the developer Nautilus in the Canadian Court and we need to take our next course of action," Mr Muthuvel said. "

Although they have written to the Prime Minister James Marape to see that they are still keen to work with the government, but my personal view is that we have already lost about K400 million, and my personal fear is that of we continue to engage in the project we are going to be forced to further cash calls to invest in that project. "It is a pity, in fact that project from day one it started came with a negative impact. We are not going to support a project that doesn't have a net positive income and that doesn't have the minimum rate of returns. There are other SOEs that we need to concentrate on like the BMobile and that has to be a collective effort and we prioritise to sell off those not making money. "If we continue to fund this, there is no satinity we can get and we cannot invest in a project that doesn't have minimum rate of returns… We need a turn around.

Barrick Shareholders Call On Authorities To Address Violent Crime Post Courier, October 7, 2019



The shareholders of Barrick (Niugini) Limited, operator of the Porgera Mine in Enga Province, have expressed their sadness at the passing of a mine employee who was fatally injured in a shooting incident at the mine on the night of September 29. They are now calling on the authorities to address criminal behaviour in Porgera. President and chief executive officer of Barrick Gold Mark Bristow, and chairman of Zijin mining, Chen Jinghe, made the following comments: "We are deeply saddened by the news of the passing of Samuel Marefa, an asset protection officer at the Porgera mine who sustained a serious gun-shot injury during that night. "Samuel was evacuated by air to Port Moresby for urgent surgical treatment and he had been in critical condition for several days.

"We received the tragic news last night that following a series of complex surgical procedures he could not hold on. "Samuel passed away as a consequence of his injuries from the shooting. "Our company is deeply saddened by his passing, and our thoughts are with Samuel's wife and family at this difficult time.

"Barrick (Niugini) limited management has been consulting with State authorities since the incident and we have made it clear that we consider it unacceptable that criminals can routinely intrude into operational areas of the mine and behave in this way with impunity. "The impact of this unlawful and violent behaviour is significant, both in terms of loss of life and serious injury, including to law-abiding mine employees simply trying to earn their living at work, and in terms of the law and order situation in Porgera generally. "We call on State and provincial authorities to urgently and thoroughly investigate the assault on Mr Marefa, bring the murderers to justice, and to address the rising incidence of violence and lawlessness in the Porgera Valley, which makes it difficult for residents to carry out ordinary activities and lead normal lives." Mr Bristow and Mr Chen noted that the company stood ready to work cooperatively with the Royal Papua New Guinea Constabulary and other authorities in responding to this latest incidence of violence and to finding long-term solutions to the critical state of law and order in the Porgera valley.

Madang authorities investigate suspected poisonous fish

Radio New Zealand, 7 October 2019

Authorities in Papua New Guinea's Madang province are working with a mining company to establish the cause of suspected poisonous fish. The Madang Administration has temporarily banned sale and consumption of fish in the province. This follows reports that a Rai Coast man died after eating fish which local villagers claim was poisoned by a toxic substance. Operators of the Ramu Nickel Mine in Madang deny that a recent slurry overflow at its Basamuk Bay refinery is linked to the problem. But a local level government president in Rai Coast district, Amili Deide, said suspicion was raised after local waters turned blood red last month. "At the moment, all of my community in the Rai Coast area, and al of Madang, they're very frightened to get the fish from the sea. I can tell you that the government is very concerned about that. They're working around the clock to rectify the problem," he said.

The Community Affairs Manager for Ramu Nico, Albert Tobe, warned false reports were being circulated in the mainstream media as well as social media about the cause of fish dying. The NBC reports him saying these stories have created fear amongst the people and they have stopped going out to sea to fish, as well as sell fish at the markets. Mr Tobe has assured the general public in Madang that Ramu Nico's Deep Sea Tailing Placement system - used to dump mining wastes into the ocean off Basamuk Bay - is safe. However, Mr Deide said that after the recent discolouring of the sea, villagers had grown fearful of consuming fish or any sea organism. "Before that everything was alright. The sea environment and everything was okay, before something polluted the sea. All of that area was covered blood red."

Report On Basamuk Spill Still To Be Released By Minister

Gorethy Kenneth, Post Courier, October 4, 2019

The final report on the Basamuk Bay chemical spill in Madang Province on August 23 will be released by the Environment and Conservation Minister Geoffery Kama, who is away overseas. The PNG government put forward four recommendations which was detailed and discussed in a heated meeting between the Madang provincial government, Ramu Nico and the Conservation and Environment Protection Authority in Port Moresby yesterday. Madang provincial administrator Joseph

Kunda, represented the Madang team, met with the CEPA team and the Ramu mine executives in Port Moresby. CEPA did an initial water quality assessment of the raw slurry spill impact area and released the report which would officially be handed to the minister for release in the coming Parliament session. In the initial assessment, there were four recommendations:

- Detail investigations of the heavy metals in the slurry components within the Basamuk Bay;
- Shoreline/benthic sediments and fish tissue sampling and investigations to ascertain heavy metals in the sediments;
- Socio-economic investigation to establish local community perceptions on the spill, their fishing and usual micro-economic activities within Astrolabe Bay; and
- An independent investigation to be done forthwith to capture all residual impacts of the August 23 spill within the Basamuk Bay.

The Madang provincial administration team had travelled to meet with CEPA as a matter of urgency for the government to reveal what the cause of dead fish in Madang was, hence the ban on sale of fish. But CEPA advised yesterday that there was still the need for an independent investigation. And a full final report to be released later.

Axiom sues Tovosia and Solomon Islands mining board

Solomon Star, 3 October 2019

AXIOM Mining Limited (AML) says it has initiated legal proceedings at the High Court over the government's handling of its export permit application. General Manager Dr Phil Tagini said they've filed a claim for judicial review against the decision of the Minerals Board, as well as a misfeasance claim against the Minister of Mines Bradley Tovosia and Director of Mines Nicholas Biliki for failing to properly exercise their powers under Regulations 70 and 71 of the Mines and Minerals Regulations pertaining to the company's export permit application. "Furthermore there are subsequent requests for materials by the Ministry of Mines which the law does not require for the consideration of an export permit," Tagini explained.

He said the application has met the requirements of the Mines and Minerals (MM) regulations and thus the company should have been granted an export permit to ship out its nickel ore products to its United States-based buyer, Traxys. However, Tagini said Minister Tovosia in a letter dated July 18 this year informed Axiom that the Minerals Board following its extra-ordinary meeting on July 5, had decided to reject the company's export permit application on the basis that it did not possess a business licence from the Isabel Provincial Government (IPG). The Board had maintained that this is a requirement even though it is not required in the Act or Regulations. Tagini explained that Axiom's non-possession of a business licence was not deliberate on its part but was rather due to failure of the Isabel Provincial Government to respond positively to its numerous applications and attempts to obtain a business licence.

He said Axiom has come to a stage where it could no longer tolerate the overreach of the Board and must bring the matter for an independent interpretation by the Courts. He added Axiom's nickel mine project on San Jorge is projected to contribute up to 15 to 20 percent of Solomon Islands Gross Domestic Product (GDP) when in the full exportation phase. "We are surprised that with the current state of our economy that a company that has been granted a Mining Lease and has been mining for a year is being refused to export their ores for reasons that we believe are not according to law. "We have complied with all requirements under the law so it is very concerning to us that this situation is preventing more employment opportunities for Solomon Islanders and much needed tax revenues into our government coffers. "It is unfortunate that every citizen and the landowner

and our loyal suppliers have to suffer for this poor governance. "Axiom is left with no other option but to have the matter rectified in the courts," Tagini said.

Papua New Guinean man dies after eating fish caught near Ramu nickel mine spill John Papik, Pacific Beat, ABC News 3 October 2019



PHOTO: Madang officials were due to receive an environmental report into the spill on Wednesday. (Supplied: Nigel Uyam)

A man has died in Papua New Guinea after eating a fish caught near the site of a massive nickel refinery spill, however the mine's Chinese operator denies the accident caused his death. **Key points:**

- A senior local official is calling for a post-mortem investigation
- The mine's operator accidentally spilled slurry into the sea in August
- A ban on the sale and consumption of local fish is in force, pending scientific tests

An estimated 200,000 litres of toxic slurry was released into Basamuk Bay in PNG's Madang province in late August, after an electrical fault at the Chinese-owned Ramu Nickel refinery caused an underwater pipe to overflow. The spill caused the bay to turn bright red, and officials say dead fish and at least one dolphin have washed up along the Madang coastline in recent weeks. An official investigation into the spill from PNG's Conservation and Environment Protection Authority (CEPA) was due to hand down its report into the mining accident on Wednesday. However, local authorities have already moved to ban people from eating or selling fish caught in the province following the man's death and the fish kills, and have requested a post-mortem examination. Marcus Kachau, Madang's deputy provincial administrator, told the ABC he also wanted environmental experts to test the fish to work out if they were safe to eat. "One person went out fishing, and caught a fish for his family, but his family refused," he said.

"He wanted to eat the fish, and then right after that, about one-and-a-half hours, he died." However a medical officer quoted in the national Post-Courier newspaper, who said he treated the man, claimed he had eaten a poisonous puffer fish. The medical officer was not named in the article, but said attempts to resuscitate the man had failed. The company itself has also denied the spill was responsible for the man's death or the fish kills, and said it would not accept responsibility until the

provincial government provided scientific proof. A delegation from the Madang Provincial Government reportedly met with environmental authorities in Port Moresby on Wednesday to receive the results of their investigation. Details from that meeting were yet to emerge, and multiple attempts to contact CEPA and the Madang Government this afternoon were unsuccessful. The managing director of PNG's Mineral Resources Authority told the ABC in August the slurry included heavy metals, which were "very toxic" and "very acidic".

Chinese owned Ramu Nickel mine threatens legal action against Madang Provincial Govt Anisah Issimel, NBC News, 2 October 2019



The Ramu Nickel Mine in Madang has threatened it will not hesitate to institute legal proceedings against the Madang Provincial Administration should the company suffer damages to its establishments and/ or employees, following reports of sightings of dead fish in the seas of Raikos, Madang, Sumkar and Bogia districts in the past weeks. Community Affairs Manager for the company, Albert Tobe, expressed this yesterday in a meeting between the Madang Provincial Administration, the company, plus other government agencies, business houses and concerned residents of Madang Town as well as the local Bel people. Mr Tobe said there are too many false reports and stories being circulated both in the mainstream media as well as the social media of fish dying as a result of the recent slurry overflow at Basamuk. He said these stories have created fear amongst the people and they have stopped going out to sea to fish, as well as sell fish at the markets.

Such reports, he pointed out; have also led to the temporary ban on the selling and consumption of fish in the province, which was imposed last Friday by the Madang Provincial Administration. Mr Tobe said some of the stories have also instigated anger amongst the general public that they could take out their frustrations on the company. He said that should any such thing happen, the Madang Provincial Administration will be held liable. Mr Tobe, meanwhile, also assured the general public in Madang that the Deep Sea Tailing Placement system, that Ramu Nickel Company uses to dump its wastes into the ocean off Basamuk is safe. He told the meeting yesterday that the DSTP facility is monitored 24/7 by the company's employees, and is not in any way a threat to the marine environment in the area. Mr Tobe said the DSTP is not responsible for the dead fish that local people claimed they have been discovering in different locations.

Extractive Industry prepares fiscal report

October 2, 2019, The National Business

THE Papua New Guinea Extractive Industry Transparency Initiative (PNGEITI) is developing its 2018 fiscal year report which will highlight various revenue payments made to the government from the mining, oil and gas sector. PNGEITI national secretariat head Lucas Alkan made the announcement this week saying the PNGEITI multi-stakeholder group was working with the Independent Administrator to compile a comprehensive report. "As part of the process to collect information from the EITI reporting entities, the auditor Ernst and Young (EY) has sent out data reporting templates, and are compiling appropriate background information and reconciliation parts of the report," he said. Alkan said the 2018 report sought to address some of the recommendations and issues that were highlighted from the 2017 report. "We're continuously improving the reports and addressing the various recommendations and issues that had risen from the previous reports including the latest 2017 report," he said.

EITI Report: 90pc of govt agencies cannot provide information

October 2, 2019, The National Business

A REPORT by the Papua New Guinea Extractive Industry Transparency Initiative (PNGEITI) shows that 90 per cent of state-owned agencies cannot provide public documents over the counter when requested. The Transparency International PNG (TIPNG) report, titled "Right to information" (RTI), found that 54 per cent of these agencies (unnamed) already had the same information online. It found that accessibility to public documents over the counter and through online platforms ranged from poor to moderate across agencies with the most accessible being corporate plans and the least being audited financial statements. The report recommended that the Government developed a right to information policy outlining the process by which a citizen could expect to obtain information and prioritise the draft and review of a RTI Legislation Bill.

The report was launched last week by TIPNG. PNGEITI National Secretariat head Lucas Alkan acknowledged the TIPNG efforts and its partners in getting the report out. "I hopes that the relevant government agencies can use this report to address the existing gaps," he said. Alken acknowledged the efforts of the PNGEITI multi-stakeholder group that had made a consolidated effort to informing the public and various stakeholders through the EITI reporting process. "The PNGEITI and its multi-stakeholder group have been supportive to open, transparent and accountable reporting in the PNG mining, oil and gas sector," he said. "The PNGEITI multi-stakeholder group has been committed to open data reporting through the EITI process and such has resulted in the production of five PNGEITI fiscal year reports from 2013 to 2017. "The reports are published and are available online, the findings and recommendations are further disseminated through the members of the multi-stakeholder group."

Wafi-Golpu to present findings

October 2, 2019, The National Business

MINING projects bring both negative and positive benefits to the people and the environment and Wafi-Golpu Joint Venture is mindful of such impacts," says an official. Wafi-Golpu JV (WGJV) project services country manager David Masani said the company would conduct various stakeholder meetings to clarify their findings into the proposed mine waste disposal into Huon Gulf waters. "We've conducted several meetings already and we'll continue to do so with Huon Gulf development authority including various impacted districts and concerned stakeholders," he said. Masani led the WGJV team to Saya, Lababia in Salamaua to conduct awareness about the proposed mine

tailings into Huon Gulf sea via Wagang village. Mine waste disposal into the sea was a hot topic at the 19th Lutheran National Youth Conference involving 5,000 youths from the church's 17 national districts.

"Gold and copper are a blessing for us to exploit, utilise and sustain human livelihoods but as humans, we have the responsibility to create proper waste management plans to avoid negative impacts," Masani said. "We've documented reports of the findings displayed at the conference stall and will be made available in various government and church offices for the public to have a better undertstanding." He said though there was no mining activity at Wafi, WGJV's community affairs unit had conducted sustainable agricultural activities over the years. "WGJV's commitment in cocoa and coffee production resulted in production of 'Kumul blo Morobe' chocolate and roasted coffee packed and sold locally creating income for villagers," he said. Salamaua president Mathias Koro said waste management was an issue. Koro, who has worked at mine and project sites around the country like Ok Tedi, Simberi and Lihir, in waste management systems, said unless WGJV convinced the people that its waste disposal standards were high they would be against dumping waste in the Huon Gulf sea.

Alluvial mining needs proper laws

October 1, 2019, The National Business

PAPUA New Guinea's alluvial mining industry has been operating without proper policy regulations to guide and protect its activities. Mining Mineral Policy acting director Asavi Kendua made the comments in Lae during the Mamose consultation forum on the Mining Safety Act (1977) review on Sept 27. Alluvial mineral exports account for almost K400 million annually for the State. However, the Government is yet to set in place appropriate policy guidelines and regulations to guide small alluvial mining activities. "Until 2019, it is 146 years on in small scale alluvial mining activities involving about 80,000-plus people not only for a living but importantly, contributes about K350 million to K400 million in exports," Kendua said. "However, this industry has been neglected in terms of policy guidelines." The Mining Act 1992, section 48-64 caters for alluvial mining activities providing necessary requirements for alluvial mining license (AML) for five years and can be extended.

Section 38 (2) of the Mining Act 1992 ensures that alluvial mining activity is limited to citizens. "If the lease holder works in partnership with foreign investor then the lease holder is automatically entitled to 51 per cent and the investor gets 49 per cent," Kendua said. Taking into consideration the invaluable efforts and commitments of alluvial miners in country, the Mineral Resource Authority (MRA) set up the Wau Small Scale Alluvial Mining Training Centre (WSSAMTC). "The Government also decided to build three similar small scale alluvial mining training centres in the New Guinea Islands, Highlands and Southern," Kendua said. MRA also initiated a small scale miners forum facilitated every two years to encourage landowner participation and looking forward to setting up downstream processing facilities for alluvial mining industry. Kendua said the forum was therefore important to gauge the views of small scale miners and impacted riverine communities to draft a proper policy to protect the alluvial mining activities in country.

Illegal Porgera mining fuels lawlessness

Bid Ambassi, Post Courier, 1 October 2019

Both government and the operator of the Porgera mine, have to be blamed for not taking tough measures in stamping out illegal mining activities in the Porgera mine. The effect of not addressing the illegal mining activities by the government is contributing to the lawlessness and social prob-

lems in the communities. Law and order problem is increasing in our communities. Tribal fighting is a major problem that is costing a lot of human lives. There is no peace and harmony in the communities we are living Government properties worth millions of kina, and properties worth thousands of kina and food gardens that are suppose to sustain the livelihood of the people in the communities are being destroyed due to unnessary lawlessness issues caused by drinking. Illegal mining activities are contributing to social and moral decay, rise of HIV and AIDS diseases, sexually transmitted infections, divorce, multiple marriages, killing, un-necessary untimely and avoidable deaths, unfaithful marriages, laziness and many other related issues.



According to PNG's Mining Act 1992, it states that all minerals existing on, in, or below the surface of any land in PNG, water lying in any land in PNG, are the property of the State. But this Mining Act 1992 be comprehensively reviewed and amended, specifically such that ownership of all minerals on and below the sea is vested in the province in whose waters minerals are located. And maybe to minimise such illegal mining activities that will lead to reduction of social problems, landowners be given greater responsibilities over their resources. Such issues are not addressed effectively and on time, we are leaving the door open for illegal miners, risking their lives at all costs, trying to grab a share of the benefits through stealing. This is like a survival-of-the fittest game where only the strongest and the bravest men used to enter the state fortified positions and grab themselves a gram of gold. According to the law of man and of God, stealing is sin. And sin is the transgression of the law. The wages of sin is death.

Many of our illegal miners have been killed by the security forces at the mine site. Many illegal miners are creating social havoc in our communities. Getting money through stealing has caused so much damage in our communities. Getting money through stealing, buying beer and drinking, we are not responsible in our drinking behaviour. We are getting drunk and behaving like animals with no human senses. We are creating unnecessary avoidable problems that are damaging our social harmony. Such issues needs urgent attention by the government. More and more awareness needs to be carried out, educating people on how to respect the law and to behave responsibly. Many are stubborn because there is no proper education. On that, our illiteracy rate is very high and people do not know what appropriate actions to be taken. Therefore, my life saving advice to the illegal miners is that it is better we refrain from risking our own lives and also we need to think about the greater good of our communities. Finally, the Government needs to urgently address this illegal mining issues because the longer it delays the more problems are created by the illegal miners in our communities.

Madang Government Bans Sale And Eating Of Fish In The Province Janet Kari, Post Courier, October 1, 2019



The Madang provincial government and the provincial disaster and emergency operations office have banned the sale and consumption of fish in the province. This follows the death of a man who is alleged to have died after eating a fish last Friday. According to a report from the Madang disaster and emergency office, the deceased was a villager from Ganglau village in the Rai Coast district. After eating the fish, he started developing joint and abdominal pains and after an hour he collapsed and died that same afternoon.

Last month, a slurry spill occurred at the Chinese government operated Ramu nickle mine port facility at Basamuk that flowed into the sea within the Rai Coast area. Ganglau village is said to be in close proximity to the site. However deputy provincial administrator Markus Kachau said he cannot comment on whether the spill has caused the death as a post mortem is yet to be carried out. He said a ban on the sale and consumption of fish in the province will be uplifted only when the responsible authorities like Conservation and Environmental Promotion Authority (CEPA) and the Department of Fisheries tell the people of Madang what's happening.

Mr Kachau said there are reports also of great numbers of fish dying mysteriously in the waters along the coastlines of Madang and urged locals not to go fishing. He also said the decision will be painful for the people as most villages along the coast depend on fishing and the sale of fish to sustain their financial needs. Emergency operations coordinator Karoi Kamac also explained that shops, food bars, restaurants, and hotels have also been told not to sell fish to their customers. He also said it is confirmed that the deceased died after eating the fish, however reports from the post mortem and lab results will confirm whether the poison was from the fish or from spilled chemicals within the fish. The emergency operations team is continuing the awareness on the villages on the coast of Madang.

Ok Tedi Mine: K100mil to shareholders

October 1, 2019, The National Business

OK Tedi Mining Ltd announced a 2019 interim dividend of K100 million to be paid to shareholders on Sept 30. This follows a final 2018 dividend payment of K200 million paid in the first quarter of this year. Chairman Sir Moi Avei, pictured, said the company was pleased to be in a position to

make a distribution to the state, which owned a 67 per cent stake in Ok Tedi, and Western entities representing the Fly River provincial government, CMCA and mine communities, who owned 33 per cent of the company. "The company continues to perform strongly, generating sufficient profit and cash to enable a dividend payment whilst funding an investment of more than K700 million to replace and relocate the mine in-pit crusher, meeting annual sustaining capital requirements of about K160 million, investing more than K60 million per annum on resource development that includes near-mine exploration, and maintaining its debt free position," Sir Moi said.

He noted that the result had been achieved despite two separate periods of three weeks where dry weather prevented river access to bring supplies in and take saleable product out and added the strategically important crusher project was expected to be complete by mid-2020 enabling access to the higher grade ore under the existing crusher that would see an increase in production and cash generation in 2022 and beyond. "I wish to thank management and staff for their efforts to date in 2019, and the shareholders for their continued and valued support."

Protection of PNG's Frieda River paramount - East Sepik governor

Papua New Guinea's Frieda River cannot be mined unless its protection is guaranteed, the governor of East Sepik province says. Radio New Zealand, 1 October 2019



Frieda River heading north to join the Sepik River. Photo: Facebook - SEPIK Capital, PNG - Wewak Urban Local Level Government

A Chinese-owned company plans to mine copper and gold on Western Province's Frieda River, which is a tributary of the huge Sepik River system. Allan Bird has posted on Facebook that while he appreciates the revenue the mine would generate; the bottom line is the safety of the Sepik River. The *National* newspaper reported him saying that if safety of the river could not be guaranteed, then mining could not happen. Mr Bird said the Sepik River is not just a supplier of fish, turtles, prawns, eels and crocodiles but a spiritual icon for his people. He said the Sepik was one of the last unspoilt rivers in the world and it would be stupid to knowingly destroy the environment in exchange for money. Mr Bird said the responsibility for the safety of the Sepik River rests with the East Sepik government and the Sepik people and they take that responsibility very seriously.

Ramu Nickel denies allegations

September 27, 2019, The National Business

RAMU NiCo management has denied allegations against the company for causing the death of fish and marine species along coastlines of Rai Coast in Madang. The company was responding to several posts on Facebook blaming the slurry overflow incident that occurred last month at its Basamuk refinery plant as the main cause of the alleged marine impact. The company stated that investigations into the slurry overflow on Aug 24 would soon be released after tests on samples taken from the area were completed. The company said the tests, sanctioned by PNG state agencies, were being done independently in Australia. "We categorically deny these allegations. There is no scientific evidence to hold us responsible," the company said. "We have not even seen these dead creatures. "Even if they are, these are too far from the vicinity of our refinery. "Common sense tells us why marine creatures including fish close to our deep-sea tailing placement (DSTP) and Aug 24 slurry outfall are not affected and some fish too far in Saidor are dying.

"Unless we get the result from the independent investigation, including Conservation and Environment Protection Authority (Cepa), we cannot confidently establish the primary cause of the alleged sea marine damages as speculated on Facebook." The company's own investigation using Basamuk Central Chemical Lab confirmed that the slurry discharged into the sea last month was safe and of no danger to marine life. However, the company's health, safety and environment (HSE) department said the pH level and its natural occurring trace metals concentration from the discharged tailings using DSTP met the requirements of their environment permit before discharging into the sea and Ramu NiCo had met the statutory compliance for every monitoring period. "Before discharging the tailings through our DSTP system, the quality assurance measure is taken to ensure the tailing effluent is not toxic, as it is actually not toxic by its nature," it said. "The waste soil maintains its natural occurring metals concentration with pH highly maintained between 7 and 8 units similar to natural marine pH levels.

"The pH condition of the tailing is achieved after a sufficient neutralisation process. "The material tailing is converted into material similar to natural soil condition and discharged at a depth of 150m. "In light of the tailing quality assurance measure, four tailing samples are collected at the mixed tank every six hours on a daily basis." The company stated that similar sampling protocol was repeated every day of each month and tested at the Basamuk central chemical laboratory. "The monthly random tailing samples are sent to third party laboratory in Australia for results validation," it said. "The laboratory-analysed results indicated the tailing was non-toxic and natural trace metals were below minimal level or ambient condition." The company said there regular dialogues with Cepa with periodical marine survey conducted to ensure the DSTP system used to place tailings at 150m under the sea bed was safe.

"There are two situations here," it said. "One is the slurry spillage into the bay on Aug 24 which is under investigation by Cepa and Mineral Resource Authority (MRA). "The final result will be produced soon so the impacted communities and nation will learn whether the slurry is toxic or not. "The second is our DSTP system. "If any allegations is labelled against DSTP then we are confident we have the safest and best practiced disposable system." The company stated that since the commissioning and operation of Ramu NiCo project in 2012, DSTP had been successful with no impact to the Basamuk basin and its marine life. "We ask the local Basamuk communities and the nation to trust our tailings disposal DSTP system."

Mine proceeds enough for all, says governor

September 27, 2019, The National

PROCEEDS from the Wafi-Golpu project will be sufficient to feed everybody, including landowners, the Morobe government, people in nine districts and the county, Morobe Governor Ginson Saonu says. He, however, said that before the Wafi-Golpu operations began, they should address the positive and negative impacts it would bring to lives that depended on the immediate environment. "Issues of destruction to environments, waste disposal, benefit-sharing among landowners, impacted communities, local level, provincial and national governments, employment and unemployment,"he said. "We cannot say no to Wafi but before it operates, we must argue, debate and discuss to find a common ground to those issues," "Otherwise, riches in Wafi is more than enough to everybody," Saonu told about 5,000 delegates attending the 19th Lutheran National Youth Conference at Saya, Lababia in Salamaua, Huon Gulf, on Wednesday.

He also acknowledged Wafi-Golpu Joint-Venture (WGJV) project services country manager David Masani for being courageous amidst issues surrounding the Wafi project. Masani led a WGJV team to Saya to clarify some doubts in waste tailing into the Huon Gulf sea. Saonu claimed that the previous O'Neil-led government had failed to consult the provincial government and landowners before signing a memorandum of understanding (MoU) in December last year. However, the MoU lapsed on June 30. "The provincial government as the custodian protected landowner interest to take the government to court. "We are now talking government to government and leader to leader until amicable understanding is reached to ensure all concerned parties and stakeholders agree" he said. Huon Gulf MP Ross Seymour said: "We must look at the positive side of issues." "I cannot wait to see Wafi operate to ease some of our issues in unemployment, agriculture and fresh-food production, marketing, community services that our government budget was unable to fund to be assisted by projects like Wafi" Seymour said.

Governor speaks on Frieda Mine Situation Allan Bird via Facebook, 26 September 2019



My position has been consistent from day one. While I appreciate the riches and the proposed business model for the mine, my bottom line is the safety of the Sepik River. If the safety of the river cannot be guaranteed, then we can't mine until there is technology available that can do this safely. The Sepik River is not just a supplier of fish, turtles, prawns, eels and crocodiles. It's a spiritual icon for all of us. My people also came from the river. We can substitute the animals from the river with other proteins but the Sepik is one the of last unspoilt rivers in the world, perhaps the only last remaining unpolluted river. There is no substitute for the Sepik River.

Governments of the past have pursued economic growth at the expense of the environment. We can't afford to do the same. We have to exercise great responsibility. We live in a world of climate change and massive environmental degradation. We would be stupid to go down the same road and knowingly destroy our environment in exchange for money. Early this year, I gave a direction that the Special Advisory team that has been in touch with us be activated to work on the EIS to provide independent advice to the Provincial Government. I have waited patiently for the mining desk to do this through the office of the Administrator and I have been following up diligently. Unfortunately, this has not eventuated. Yesterday I discovered that our mining desk may have compromised their position by certain actions they have taken without informing the PA. The independence of the mining desk has now been brought into question. This won't do.

This agenda is critical but it seems certain public servants do not appear to place the same level of urgency or exercise wisdom and good judgement on matters that are of serious public importance. Given the lack of response to our queries from CEPA I am not confident that CEPA has the capacity or the capability to properly and professionally review the EIS. The responsibility for the safety of the Sepik River rests with the ESPG and the Sepik people. It is our responsibility and we take that responsibility very seriously. Effectively immediately, I have requested the PA to convene our advisory team and there will be a lock up to fully review the EIS. At the end of this process we will give a response to all parties based on our assessment of the EIS. I will be personally taking charge of the team.

It is our wish to portray to all investors, particularly those who are coming for Agriculture and other businesses that ESPG is not anti- business. That we are intelligent and we will discharge all our responsibilities in a manner which is professional and fair and that all businesses will be subject to the same rigorous process when the safety of the environment and the livelihoods of ordinary people might be at risk. On behalf of the ESPG, can I ask all our people to remain calm during this period. For Frieda Mine to proceed, two approvals are critical, the approval of the WSP Assembly and the ESP Assembly. I assure all our people the approval from our Assembly will not be done hastily but with prudence and wisdom. We have not reached a stage where we have sufficient evidence to give our approval and that is where the matter remains.

Our silence does not signify approval. It signifies that we understand that we have a responsibility to demonstrate professionalism in the conduct of our work. Since we do not fully understand the EIS, we would be irresponsible to comment on it and make a case one way or the other. Yupla trustim mi na yupla givim mi displa wok. Mi askim yupla long belisi na noken wokim stupid blo yumi. Yupla wanbel na larim mipla kisim ol experts long mekim displa wok. Nogat wanpla longlong man, aipas man o yaupas man holim ol displa wok. Trustim mipla long mekim displa wok. Em tasol mi askim yupla olgeta.

PNG to seek more from Exxon on P'nyang deal than Total's Papua LNG

Jessica Jaganathan and Sonali Paul, Reuters, September 25, 2019

Papua New Guinea will press Exxon Mobil Corp for "far better" terms on its P'nyang gas project than the government secured in a recent agreement with Total SA for its Papua LNG project, the country's petroleum minister said. The P'nyang field will help feed an expansion of Exxon's PNG LNG plant. If negotiations for the project are protracted, that could delay Exxon's \$13 billion plan with Total's Papua LNG to double the country's liquefied natural gas exports by 2024. Talks on P'nyang were put on hold earlier this year when the government sought to revise Total's Papua LNG agreement. That deal was finally endorsed in early September, with minor concessions from Total.

Formal talks on the P'nyang project have yet to begin, with the government waiting for information from Exxon, PNG Petroleum Minister Kerenga Kua told Reuters on the sidelines of the annual LNG Producer-Consumer conference in Tokyo.

Asked whether the government would seek the same terms from Exxon on the P'nyang project as it secured from Total, Kua said: "It has to be better. It has to be far better. That's the key point." Exxon Mobil, which is also a partner in the Papua LNG project, said it is looking forward to working with the PNG government to conclude the gas agreement for the P'nyang project ahead of decisions on design work for the addition of three new processing units, called trains, at PNG LNG. "The verification of the gas agreement for the Papua LNG project confirms the commitment of all parties to make the project a success and provide value for all stakeholders," an Exxon Mobil spokeswoman said in emailed response to Reuters when asked to comment on Kua's remarks. The push to extract more benefits from the P'nyang project is part of a wider effort by PNG's new government to reap more rewards from the country's mineral and petroleum resources to lift the country out of poverty.

Kua said the government would begin working with foreign investors next year to review natural resource extraction laws, which mostly stem from before PNG won independence in 1975. The country is already in the process of revising its Mining Act, and next year will look to update its petroleum legislation to match regulations in other nations that produce LNG. "In early 2020 the government will look at such changes in our regulatory set-up in close consultation with our development partners," Kua said at the conference. "This consultation is necessary to ensure Papua New Guinea is walking forward in lock-step with its investors," he said. "Whilst attracting FDI (foreign direct investment) in the oil and gas sector, reaping and sharing the rewards involving this valuable resource must be equitable to our development partners, investors, and the host government and its people."

Cooks opposition appalled at dumping of marine conservationist Radio New Zealand, 25 September 2019



Jacqui Evans Photo: Goldman Environmental Prize

The Cook Islands Opposition Democratic Party says the dumping of Jacqui Evans from the Marae Moana is appalling. The party leader, Tina Browne, said by removing the world-renowned environmentalist the government has a reached an all-time low. She said it is completely unacceptable for the government to do this to a highly qualified, passionate Cook Islander who has dedicated

most of her life to the protection of the ocean. Ms Brown said she is aware that Ms Evans didn't back the government on its plans to ignore the regional call for a 10-year moratorium on seabed mining. She said the government instead wants to fast pace mining within the Cook Islands EEZ. The Cook Islands Government has not yet explained why it took the action it did.

Solomon's PM urged to impose duty on APID

Ian M. Kaukui, Solomon Star, 25 September 2019



MV Solomon Trader oil spill on Rennell Island, Solomon Islands. Photo: The Australian High Commission Solomon Islands

PRIME Minister Manasseh Sogavare has been urged to revoke the 100% tax exemption duty granted to the bauxite miners on Rennell island, Renbel Province. The bauxite mine is owned by Chinese logger APID Ltd, which had contracted Hong Kong-based company Bintan Mining, to carry out the operation. Local activist Lawrence Makili said if the Government is looking for money to fill its coffers, Prime Minister Sogavare must remove the duty exemption the miner has been granted. "There are lots of areas we can earn our own money as a country if we are led by responsible leaders," Makili stated. "These include using our own resources to stimulate economic developments and one of them is the imposing the right tax on foreign businesses operating here," he added. "Yet, we see a foreign investor coming in and get our resources freely out of the country." Makili said the resources belong to the country and it should be utilised for its economic benefits. He said despite the call being made previously, the Government continues to allow the miner to enjoy the exemption, much to the loss of this country.

In his speech at the recent Australia-Solomon Islands Business Forum, Sogavare said the government through the Ministry of Finance and Treasury is now working on a tax policy review. "The Government is opened to inputs and dialogue in this area and will bring to Parliament the Tax Administration Bill, Customs and Exercise Bill and Value Added Tax Bill," he said. He said this is not going to happen in this year's meeting but in 2020 Parliament meeting. Sogavare said he is also conscious of how tax regime is affecting the private sector especially after Solomon Islands Tobacco Company (SITCO) and Solomon Breweries Ltd (Solbrew) paid him a courtesy visit. "We had a very informative and fruitful discussion and it was really interesting to hear their views with regards to excise taxes, and how they can assist in working together with the Government to ensure a winwin situation for all. "After this discussion, I realised that our tax regime in this instance has resulted in the government losing out millions of dollars. I have since instructed my staff to work closely with other relevant ministries to address look at other options," he added.

Trans Tasman Resources' fight to mine South Taranaki Bight back in NZ court New Zealand Herald, 25 September, 2019



Whanganui doctor Athol Steward was joined by supporters in the last stretch of his walk from Raglan to Whanganui in 2017 to protest seabed mining. Photo / File

A mining company's fight to dig for ironsands off the coast of Taranaki began again on Tuesday in court. Trans Tasman Resources (TTR) was granted consent in 2017 to dig up to 50 million tonnes of sand off the South Taranaki Bight seabed each year, extract the iron ore from it, and dump the residue on the sea floor. That consent was overturned by the High Court last year, after it was fiercely opposed by environmental groups including Kiwis Against Seabed Mining, Greenpeace, and Forest and Bird. The crux of the argument in the Court of Appeal on Tuesday centred on whether a raft of conditions that were issued with the marine discharge consent, amounted to an "adaptive management approach". Adaptive management is a provision that allows for an activity to still go ahead, even if the information about its effects is unknown, or incomplete. It can also be described as learning by doing, and adjusting the way something is done once more information becomes available.

Under the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act (EEZ) an adaptive management approach cannot be considered for a marine discharge consent. The High Court found the conditions imposed alongside the consent, did amount to adaptive management, which is what TTR's lawyers argued against on Tuesday. Justin Smith QC told the court the conditions were no different to conditions imposed on other consents, in that if they were breached "you're out". He said if it was adaptive management, the Environmental Protection Authority's (EPA) Decision Making Committee (DMC), which approved the application, would have known. "The DMC was more than conscious of what adaptive management is and the [EEZ's] prescription of its use for the purposes of discharge consents." "This matter was considered and considered quite carefully." But the respondents disagreed. Lawyer Richard Fowler said the combination of the 109 conditions did amount to adaptive management because it required TTR to make changes once more information was gathered.

He also said some of the conditions did not have "hard limits" meaning there was no clear way to know if they had been breached or not, so was different to a regular consent. Lawyer for Forest and Bird Martin Smith told the court the DMC was provided with information that contained significant uncertainties about the state of the current environment and the effects of the proposed activity. The conditions allowing adaptation were imposed in response to [a lack of information] so that info could be gathered and the activity adapted accordingly. That is the kernel of adaptive management." The appeal this week is the latest in a long string of litigation for the parties. TTR initially applied for consent to mine in 2013, the Environmental Protection Authority refused the consent in 2014,

but granted it when TTR re-applied in 2017. Last year a number of environmental groups, including Kiwis Against Seabed Mining, Greenpeace and Forest and Bird fought the consent in the High Court and won. In September last year the company sought leave for this week's appeal, which will continue to be heard on Wednesday and Thursday.

Pressure on MRDC to come clean on LNG revenue

Mekere Morauta, PNG Attitude, 25 September 2019



Isaac Lupari chairs MRDC where "everything it does is shrouded in secrecy"

The Mineral Resources Development Corporation (MRDC) needs to publish up-to-date audited details of its group finances since PNG LNG gas production began in mid-2014. MRDC manages landowner equity interests in both mining and petroleum projects and is chaired by chief secretary Isaac Lupari. It is estimated that almost K1 billion in landowner royalties has flowed into its coffers since then, but virtually none of that money has reached its rightful owners. And, contrary to claims by MRDC last week, I am advised that the company has not paid any dividends on the investments it has made on behalf of landowners from their royalty payments. Hundreds of millions of kina have been invested, but are these profitable, sound investments? MRDC can make flowery statements, empty promises and false and irrelevant denials, but the fact is that, without publishing its accounts, it cannot prove what it says is true. It cannot demonstrate that it is operating according to the law, or that landowners are receiving a fair return on their funds.

MRDC's independent auditors have refused to sign off financial statements. The auditor-general has refused to sign off financial statements. And MRDC has not supplied financial statements to the auditor-general or the Investment Promotion Authority as required. This is why it is so important that the public inquiry into MRDC proposed by prime minister James Marape goes ahead as soon as possible. In the meantime MRDC should immediately come clean on the state of its finances. It is in the landowners' interests that current information verified by independent auditors and the auditor-general is made available. Failure to supply that information will only heighten public suspicions that all is not well at MRDC. Has there been waste, abuse and mismanagement? The public, as owners of this state corporation, has a right to know. The information required includes details of trust accounts and other accounts holding landowner funds, the cost and current value of MRDC's investments, returns on those investments to landowners, withdrawals of landowner funds and details of board approvals for them, payments to all directors and management, fees charged by MRDC to subsidiary companies, and payments to suppliers.

A media release issued last week by MRDC consisted of spin and misinformation. The dividends the company claimed to have been paid are not dividends from MRDC's investment of landowner

funds. They are dividends paid from underlying resource projects as a result of equity participation negotiated by the State. Nor can MRDC legitimately claim any increase in asset values because its financial statements have been called into question by its independent auditors and the auditorgeneral. The value of MRDC's investments using landowner funds is singled out for criticism by its auditors and the auditor-general. There are other question marks over short term deposits, receivables, related party balances, income tax and financial statement disclosures. Other comments made by MRDC have an equally unsound basis – none of the documents or processes it refers to in its media release are open to public scrutiny. MRDC, unlike most other state-owned enterprises, does not even have a website. Everything MRDC does is shrouded in secrecy. It has not provided up-to-date information or full information or even correct information for years. Now is the time to provide it.

Govt working to address slurry spill incident at mine: Kama

September 25, 2019, The National Business

ENVIRONMENT, Conservation and Climate Change Minister Geoffrey Kama says the Government is working to address the slurry spill incident Ramu nickel mine's processing plant at Basamuk Bay in Madang. Kama said these with respect to the ongoing concerns raised in the media regarding the incident that took place on Aug 24 at the mine's Basamuk Bay processing plant. He said the slurry spill comprising fine red clay material entered the waters of the bay and caused discolouration of the shoreline near the plant. Kama said the discolouration had been diluted and the shoreline and waters near the plant were clear. "Of course where this fine clay material sits as it settles through the water column and on the reefs is currently being investigated with a detailed report to be prepared and presented for the people and the country," Kama said on Friday before heading to New York, US for the UN Assembly Meeting.

He said preventative measures had been implemented at the plant and thanked the Basamuk community for their resilience and understanding. "Any discomfort caused to the community as a result of the spill incident is currently being addressed and any scientific facts and results will be announced as soon as a detailed report is completed." He said water samples collected from the site had been sent to Brisbane for analysis. "Technical officers from Cepa (Conservation and Environment Protection Authority) will continue to monitor the situation in collaboration with the Mineral Resources Authority (MRA)." Kama assured the affected community and the country that the state was doing everything in its power to restore normalcy and ensure the people's interest was put first.

Morobe To Focus On Developing Small Scale Mining

Jerry Sefe, Post Courier, September 24, 2019

Morobe Governor Ginson Saonu has set the course for the Morobe Provincial Government and its administration to focus on building small scale mining in Morobe Province. Mr Saonu when attending a small scale mining consultation workshop in Lae said he would direct the Morobe provincial government (MPG) and the administration (MPA) to assist miners at the end of October 2019. "We will also table crucial agenda on the developing small scale mining in Morobe Province through Provincial Executives Councils (PEC) together with the 2020 Provincial budget presentation in December as well," said Saonu. He said it has always been his dream and desire before he became a politician to create opportunities for small scale mining that are properly developed into a sustainable and robust business income stream for small scale miners.

He said successful millionaires in alluvial mining were on the rise because they were taught to use improved small-scale mechanized alluvial mining techniques, supported by respective government

agents and the list goes on. "I want to see the same for all small scale miners in Morobe become somebody living and enjoying luxury lives. "I expect a provincial policy, strategies and better management approaches to support our small scale miners. "As far as I am concerned MPG is committed to support small scale miners in any capacity to make them become successful and this must start this year" Saonu said.

Pruaitch Says PAC Faces Daunting Task On KPHL

Post Courier, September 23, 2019

National Alliance Party leader Patrick Pruaitch says the Parliament's Public Accounts Committee will face a daunting task when it looks into the financial airs of Kumul Petroleum, which holds the government's 16.57 per cent stake in the PNG LNG Project. Mr Pruaitch said the Marape government has taken a responsible stance by rejecting claims by Kumul Petroleum that it is not answerable to the PAC inquiry chaired by Sir John Pundari. "I have raised several issues with regard to the financial affairs of Kumul Petroleum, which is the only state-owned enterprise that operates as though it is not accountable to anyone even though every toea that it has rightfully belongs to the people of PNG," he said. "The financial accounts released by Kumul Petroleum, covering the period from 2014 to 2017, indicates that it has been in receipt of over K5 billion as a result of government equity in the PNG LNG Project. Only a tiny portion has been returned to the government as dividends and corporate tax.

"It has now come to my attention that the 2017 annual accounts of Kumul Petroleum, which have been endorsed by the Auditor-General, discloses that total revenue it received from PNG LNG in 2017 was US\$411 million, or approximately K1.37 billion. "However, the 2017 annual report from the Government's Extractive Industries Transparency Initiative (EITI) shows that it received K2.097 billion from PNG LNG, suggesting under-reporting of 2017 revenue by over K700 million. "Has there been an accounting problem or has this money simply vanished? An additional discrepancy is that the Kumul Petroleum 2017 accounts show the company paid US\$56.74 million in corporate tax in 2017, while EITI only records a payment of K13.3 million, as confirmed by the Internal Revenue Commission."

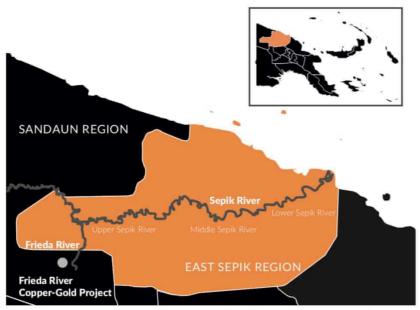
Mr Pruaitch said it was notable that key agencies that have not cooperated with the government mandated EITI process have been Kumul Petroleum and the Bank of Papua New Guinea, which has been recipient of landowners' royalty payments from the PNG LNG Project. Mr Pruaitch, who recently left his position as opposition leader to join government, said it was praiseworthy that Prime Minister Marape has shown a determination to ensure that government bodies, such as Kumul Petroleum and Mineral Resources Development Company, were transparent and accountable. Former prime minister Sir Mekere Morauta has raised a series of issues regarding the operations of MRDC and Prime Minister Marape has agreed to hold a public inquiry into MRDC. The National Executive Council has also instructed Kumul Petroleum to appear before the PAC inquiry.

Frieda landowners want deal to be based on amended law

September 23, 2019, The National Business

FRIEDA River project landowners in Telefomin, West Sepik, want the mine agreement to be based on the amended Mining Act that is yet to be passed by Parliament. The landowners made the call to the Government, through Telefomin MP and Foresty Minister Solan Mirisim, at Okisai village, Frieda River, on Thursday. Spokesman Bob Onengim said the landowners wanted the mine to be the first in the country to come under the amended Mining Act. He said the mine was going to be one of the biggest in Papua New Guinea, the landowners wanted to set a new bench mark for the lo-

cal mining industry. Onengim said landowners also wanted the State not to give tax concessions to the companies that would operate and development Frieda River project. He said giving tax concessions continued to affect the country and the people of Frieda did not want that to be repeated for the Frieda project.



Map 1: The Sepik River and the proposed Frieda River Mine

He said that was one way of taking the country back as alluded to by the Prime Minister James Marape. He said after the experiences of other mines like Lihir, Misima, Porgera and Ok Tedi, the state was in a better position to negotiate the best for the landowners and the country. "We want the Frieda project to be unique and they want the project to be at a different level," he said. "We want the project to be the beginning and an example for other future mines in PNG with best benefits for the people of Telefomin and PNG." Onengim said one of the issues they needed to address before the mine began operation was to identify the principal landowners and related issues within the special mine lease areas. He said the landowners wanted to see a Frieda River project awareness programme conducted as well as looking into other issues like a resettlement programme. He said people also wanted an audience with Mining Minister Johnson Tuke and James Marape to discuss their concerns about the project.

Landowners investment portfolio grows: MRDC

September 23, 2019, The National Business

THE Ok Tedi mine landowners' investment portfolio has seen significant growth in a span of 10 years under the management of the Mineral Resources Development Company (MRDC), the company said in a statement. MRDC said the Mineral Resources Star Mountain's (MRSM) investment portfolio now stood at K789 million from K119 million in 2008. This was revealed to 30 landowner leaders representing the 10 mine villages of Ok Tedi mine during a two-day visit to Port Moresby last week. The tour was organised by MRSM for an investment briefing. The significant growth in value was due to an improvement in the Bank South Pacific (BSP) share price, an increase in the unit price for Pacific Property Trust (PPT), and Pacific Balance Fund.

It was also noted that MRSMs' property portfolio appreciated by K23.14 million while its international portfolio appreciated by K4.69 million through appreciations in share prices on Australian Stock Exchange (ASX) listed equities. MRSM's mining interest equity of nine per cent in the Ok Tedi mine also drove this significant growth, aided by a number of new investments including the Star Mountain Plaza project (Hilton). The landowner leaders stayed at the Hilton Hotel, one of their

investments, then toured several real estate and commercial properties owned by MRSM including the MRDC Haus and Pacific MMI building in downtown, Port Moresby.

China Railways loans Honiara US\$825 million to construct and lease gold mine facilities through 2034. Duncan DeAeth, Taiwan News, 20 September 2019

Following the break of diplomatic ties between the Solomon Islands and Taiwan on Sept. 16, it has come to light that China Railway Group Ltd. has signed a US\$825 million dollar deal with Honiara to build and lease a railway system and mining service station. The deal was signed on Sept. 12, and the contract is set to last until March 2034, according to reports. In line with China's usual strategy of dollar diplomacy, the money for the contract will come in the form of loans and will contribute significantly to the Solomon Islands' national debt over the next 15 years. The deal was inked with China Railway International Group, a wholly owned subsidiary of China Railway Group. According to CNA, China Railway International announced the deal on its website's notice board on the date it was signed, with parent company China Railway Group announcing it on the Sept. 16., the day the Solomon Islands and Taiwan officially broke ties.

The proposed infrastructure project will be constructed in the interior of Guadalcanal Island to serve the Gold Ridge Mine, which at the height of its production in 2012 accounted for 20 percent of the country's entire gross domestic product. The mine has only been in operation since 1998, but over the past two decades, mining has been regularly stalled by social unrest, environmental disasters, and financial scandals involving former owners. The mine, which is currently the property of a local landowning company, Gold Ridge Community Investment Limited, was considered a "disaster area" by Honiara after a damn collapsed in 2015. The contract and lease agreement between Honiara and Beijing reportedly only cost China Railways .78 percent of its total 2018 revenue. According to CNA, the contract signed by Honiara and China Railways involves two major phases. The first phase includes an exterior mountain-stripping project followed by the installation of interior mining equipment and facilities. The second phase includes the construction of roads, bridges, and a nearby reservoir along with dock facilities and a hydropower station.

Resource Industry Does Not Manipulate MRA: Chamber

Post Courier, September 20, 2019

The amended MRA Act passed by Parliament last year has removed all industry representation from the board of the Mineral Resources Authority, the PNG Chamber of Mines and Petroleum said yesterday. The passage of the revised Act in February 2018 effectively removed the industry from the MRA board. Therefore, claims by Jiwaka Governor Dr William Tongamp in the National newspaper on Monday September 9 that industry controls and manipulates MRA are factually incorrect and misleading, the chamber states in a statement yesterday. Furthermore, when the industry representatives sat on the MRA board, they have always acted professionally and always in accordance with the Act. It is unfortunate that Dr Tomgamp has cast aspersions on the reputation and good standing of many professional Papua New Guineans that serve on boards like the MRA and other State authorities.

The Chamber further dismissed claims by the governor that information published by MRA following the slurry spillage at the Basamuk Bay were provided by the 'industry players and not independent'. MRA and CEPA are independent regulators and our observation is that they have responded to this matter professionally and it is best that the Governor seeks clarification directly from State authorities, it stated. It is best that Dr Tongamp seeks clarification directly from State institutions on the process and procedure they have followed. "We would welcome any opportunity to

meet with Governor Dr Tongamp to explain the role of the chamber and the contribution the mining and petroleum sector makes to PNG's economy as well as the wider sector through investments in health, education, training, landco companies and basic infrastructure across Papua New Guinea."

'Institutions should be held accountable'

September 20, 2019, The National Main Stories

MORESBY North West MP Sir Mekere Morauta, pictured, says important institutions must be held accountable for the use of the hundreds of millions of kina they manage for landowners. Sir Mekere made the comment in reference to Prime Minister James Marape's call for an inquiry into the Mineral Resources Development Company (MRDC). He claimed MRDC had presented an incorrect financial statement to the group's auditors and the Auditor-General. "Simply not reporting at all may be a ticking time bomb for landowners and their funds they have entrusted to MRDC," he said. "MRDC and its subsidiaries, Petroleum Resources Kutubu (PRK) and Petroleum Resources Gobe (PRG) have an abysmal track record with the Auditor-General, company auditors and the Investment Promotion Authority (IPA). "They are years late in filing their annual returns and financial statements to the IPA and to the Auditor-General," he said. Sir Mekere said in many instances, the company's own auditors and the Auditor-General had refused to sign off on their financial statements.

Mysterious Fish Deaths in PNG's Madang Province

NBC News, PNG Today, 18 September 2019



Locals in Warai Village of Raicoast District in Madang Province, Papua New Guinea have raised concerns about tuna fish dying mysteriously in the area. Fisherman Thomas Warr told NBC News from Madang, the villagers started noticing fish dying and floating ashore, on Tuesday 17th September. He said villagers are confused as to what would be the cause of this, but they have refrained from fishing, following this occurrence. Mr. Warr said reports have emerged of fish dying as well in Karkar and Bagbag Islands - something which he says needs to be confirmed as well. A team led by Madang Provincial Administrator Joseph Kunda Bonomane with representatives from the National

Fisheries Authorities, National Disaster office and Health among others are now traveling to the site to collect fish samples, for testing. Meantime, people in the Raicoast District of Madang Province are questioning what has become of the report on the '200-000 litres toxic slurry' spillage which occurred in August, from the Ramu Nickel Mine's Basamuk processing plant.

The Chinese company which has invested over six billion kina in the project, came out recently revealing the magnitude of the spill following outrage by locals after the colour of the sea in the area turned red, brown and orange. The spill material - reportedly 'very toxic' was a result of a pump failure caused by an electronic fault which led to an overflow. A few weeks later now, with fish turning up dead on the shores in the same area - the locals want answers. Mr. Thomas Warr said it's hard to understand when you have big mining operations like this and yet no testing facilities for instances such as this. He said now, everyone has to wait for samples to be sent overseas for testing and the people are kept in suspense - in most cases there is no feedback at all. NBC News understands, residue from the spillage were sent to Australia for testing, and results are expected this month.

Consultation of law review starts

September 19, 2019, The National Business

REGIONAL consultations for the review of the Mining Safety Act of 1977, starting next Monday, will be conducted by the Mineral Policy and Geohazards Management Department and Mineral Resources Authority (MRA). According to a statement from the department, as the mining industry focuses on investing in cost effective and technologically advanced mining techniques, as in the case of new upcoming mining projects such as the Solwara 1, Wafi-Golpu and Frieda River projects, it was highly necessary that the revised Act provided a clear regulatory oversight for such developments in the mining sector going forward. It stated that as part of the review exercise, the department and MRA would conduct the first phase of regional consultations for the Highlands and Mamose, starting in Eastern Highlands, Goroka, on Monday and Kainantu on Tuesday – and in Lae, Morobe, next Thursday.

The National Government through the mining ministry, invited stakeholders from the mine host provinces, landowner groups, government departments and agencies, mining companies, exploration companies, quarry operators, the PNG Chamber of Mines and Petroleum, Business Council of PNG, professional organisations with interest in mining industry, suppliers, and members of civil society and interested individuals to attend the consultative forum and air their views, concerns and comments on the health and safety aspects of mining in the country. The review of the Mining (Safety) Act 1977 and regulations first started under the former mining department but did not progress and following the restructure of the department, a review of the Act was included as part of its 2009 to 2015 Mineral Policy and Legislative Review exercise. The issues and views expressed during the regional consultation would be evaluated and incorporated into the final drafting of the new Mining (Health and Safety) Act and will be presented to the National Executive Council for its endorsement for tabling in the Parliament.

Landowner executives against call to shut down mine

September 18, 2019, The National Business

THE executives of landowner companies in the Ramu NiCo Project have opposed social media speculations and calls by the Madang provincial government and certain Madang MPs to shut down the mine. The Lanco executives and landowner association from four landowner areas came out strongly at a press conference yesterday to oppose the call by the Madang Governor Peter Yama to

shut down the mine following a slurry overflow incident last month. Coastal Pipeline landowner chairman and Raibus Group of Companies head Steven Saud said the slurry overflow incident at Basamuk was a technical issue which had been addressed by relevant government departments, which were the Mineral Resources Authority (MRA) and the Conservation and Environment Protection Authority (Cepa).

He said there were investigations underway and once the report was released the stakeholders would know the status of the cause and effects of the spillage. Saud said the Ramu nickel mine had brought tangible benefits to the four impacted landowner areas of Kurumbukari, Inland Pipeline (Maigari), Coastal Pipeline and Basamuk in terms of business spin-off activities, employment opportunities, both direct and indirect, and infrastructure development. Saud said last year Ramu NiCo (MCC) packaged a K1.2 million community infrastructure development fund for the four landowner areas.

Ramu: Clans get jobs for K460mil in 11yrs

September 17, 2019, The National Business

LANDOWNERS from Ramu Nickel/Cobalt Project in Madang have received more than K463.4 million worth of business contracts from the Ramu NiCo management (MCC) Ltd over the past 11 years, according to the company's 2019 Business Development Update Report. The company said out of that amount, K63.5 million in contracts were awarded for the transportation of chromite from KBK Mine to Lae from 2016 to June 2019 and a K40.6 million contract was awarded for fuel transportation since 2007. A total of K1.1 billion alone was spent on local procurements of goods and services since 2007. "From the total of more than K1.7 billion, K1.1 billion was spent on local procurement since 2007 till June 2019, landowner security firm Raibus Security Services Ltd received more than K10.4 million worth of contracts and another landowner company, NCS – Raibus received more than K244.6 million in contracts to provide meals for mine workers," the report said.

"Other landowner unifying umbrella companies including Kurumbukari Ltd Kurumbukari landowners, Maigari Ltd for inland pipeline landowners, Wass Matau Ltd for Coastal Pipeline landowners, Basamuk Enterprises for Basamuk landowners, Raibus Engineering and other area contractors received around K56.7 million worth of contracts from 2007 to June 2019. "In fuel transportation since 2007 till June 2019, we spent well over K40.6 million," Ramu NiCo management said. The company said sub-contractors outside the project impacted areas were engaged and paid millions of kina to provide goods and services that the project landowners did not have the capacity to provide.

"Our contractors and landowner companies employ a total of 930 nationals. "Then you are looking at vegetable suppliers from the Highlands region, hire car owners, labour hires, PMV operators to name the few. The benefits filter down to many individuals and their families." The Ramu NiCo Business Development Plans aims to optimise landowner participation in spin-off businesses generated by the Ramu Nickel project, stimulate capacity of landowner companies to operate sustainable business ventures outside the Ramu Nickel project and create market for local suppliers of agriculture, fisheries and tourism products or their business activities. "We also aim to ensure equitable distribution of benefits from landowner businesses to their shareholders, facilitate a K2 million infrastructure project under the Social Economic Development Plan (SEDP) and provide Community Assistance Scheme through subsidies in education, health and a micro-credit scheme."

Govt plans laws to repay landowners

September 17, 2019, The National

THE Government will amend laws to fairly compensate resource owners and provinces, says Prime Minister James Marape. Marape told the people during the 44th Independence Day celebrations that his government would amend laws to give back to resource owners and provinces including the Bougainville government. "If and when you see changes in the Oil and Gas Act or the Forestry Act, you must know that the work is beginning," he said. "(It's) your fair share of resources revenue. But I call on you all to give back to PNG a good law and order environment." Marape said it should start with citizens living as Christians "in harmony with one another, doing unto others what you want others to do to you and working productively with your brains and hands". He promised to have in future budgets "innovative avenues to help tertiary students and business women and men keep their heads high and assist the nation by being law-abiding". He urged the people to start working together "irrespective of the colours of our provincial flags". "Let us blend our diversified tribal songs into a united nation anthem." He called on Members of Parliament, State ministers, public servants and citizens to work together to secure the country's future.

Collapse of PNG deep-sea mining venture sparks calls for moratorium

Papua New Guinea out of pocket \$157m from failed attempt at mining material from deep-sea vents as opponents point to environmental risk

Ben Doherty, The Guardian, 15 September 2019

The "total failure" of PNG's controversial deep sea mining project Solwara 1 has spurred calls for a Pacific-wide moratorium on seabed mining for a decade. The company behind Solwara 1, Nautilus, has gone into administration, with major creditors seeking a restructure to recoup hundreds of millions sunk into the controversial project. The Solwara 1 project (Solwara is pidgin for 'salt water') planned to mine mineral-rich hydrothermal vents, formed by plumes of hot, acidic, mineral-rich water on the floor of the Bismarck Sea. But the project has met with fierce community resistance, legal challenges, and continued funding difficulties. The PNG government sunk more than 375m Kina (AUD\$157m) into the project, money it is attempting, but appears unlikely, to recoup. The project has been "a total failure" prime minister James Marape said. Deepsea mining has proven contentious wherever it has been proposed and trialled across the world.

Proponents argue deep-sea mining could yield far superior ore to land mining – in silver, gold, copper, manganese, cobalt and zinc – with little, if any, waste product. The industry is potentially worth billions of dollars and could assist the transition to a renewable energy economy, supplying raw materials for key technologies such as batteries, computers and phones. Different mining methods exist, but most involve using converted terrestrial mining machinery to excavate materials from polymetallic nodules or hydrothermal vents on the sea floor, at depths of up to 6000 metres, then drawing a seawater slurry to ships on the surface. The slurry is then "de-watered" and transferred to another vessel for shipping. Extracted seawater is pumped back down and discharged close to the sea floor. Environmental and legal groups have urged extreme caution, arguing there are potentially massive – and unknown – ramifications for the environment and for nearby communities, and that the global regulatory framework is not yet drafted, and currently deficient. Scientists argue deep sea biodiversity and ecosystems remain understudied and poorly understood, making it impossible to properly assess the potential impacts of mining - including disturbance of seafloor ecosystems; sediment displacement; and noise, vibration, and light pollution - and to establish adequate safeguards. Deepsea mining could worsen the global climate emergency, reducing the ocean's ability to store carbon by disrupting seafloor sediments.

The Pacific has been seen as a region of immense deepsea mining potential, but some government leaders are now counselling against the rush to embrace seabed mining. "I ask you all to... support a 10-year moratorium on seabed mining from 2020 to 2030 which would allow for a decade of proper scientific research of our economic zone and territorial waters," Fiji president Frank Bainimarama told a climate 'sautalaga' – an open discussion – at the Pacific Islands Forum last month. Charlot Salwai, Prime Minister of Vanuatu, supported Fiji's call for a 10-year moratorium. Civil society organisations have consistently called for a moratorium on seabed mining "to prioritise the health of our communities and recognise values beyond economic gain". PNG had previously been one of deepsea mining's firmest backers, but new prime minister James Marape has said he is wary of the technology, saying PNG had been "burned" by industry promises. "Until that deep sea mining technology is environmentally sound and takes care of our environment at the same time we mine it, that, at this point in time, I support the call made by the Fijian prime minister," he told the Post Courier.

"If there is an opportunity for deep-sea mining, so long as environmentally it is friendly and the harvest of resources is done in a sustainable manner then we can give considerations to this, but right now it is a show. "The technology is not proven anywhere and PNG, we burnt almost 300 million Kina in that Nautilus [Solwara 1] project on a concept that someone told us can work, but is... a total failure." Jonathan Mesalum from the Alliance of Solwara Warriors, a community group which opposed the Solwara project, said a 10-year moratorium would be welcomed, "but we need to go further to protect our seas, our livelihoods and traditions by imposing a ban". He said while Nautilus's project had collapsed, other companies might take control of the project's licences and attempt to resurrect it. "No one knows about the environmental impact: not scientists, not Nautilus, not the government, nor you or I," Mesalum told The Guardian. "Our biggest fear is there might be interest from other mining companies who wish to continue the project."

Nautilus developed and successfully tested three undersea robots designed to mine hydrothermal vents on the ocean floor, but funding for its production support vessel dried up midway through construction. Under a restructuring plan approved by a Canadian court, the company will be liquidated and left with no assets. But a PNG government-owned company Eda Kopa is seeking to recoup some of its money, in an ongoing dispute back before court this week. A new report, Why the Rush?, from the Deep Sea Mining campaign described the Pacific as the "new wild west" for speculative mining ventures, and argued Pacific regional decision-making and political processes have been manipulated by mining companies seeking to take advantage of inchoate and incomplete regulatory frameworks in the region. Sir Arnold Amet, former chief justice of PNG, was Governor of Madang province and an MP when Solwara 1 was approved. He said he regrets that the then government didn't adequately scrutinise the proposal.

"Let's recognise this failed investment in the upcoming budget and ensure we don't enter into seabed mining joint ventures in the future or issue any more seabed exploration or mining licences. We now know how deep sea mining companies attempt to manipulate governments according to their own narrow profit motives without any conscience. We look to PM Marape to stand up for Papua New Guineans against the pressure exerted by these corporations." The Environmental Defenders Office NSW said deep seabed mining was similar to open cut mining at depths of between hundreds and thousands of metres below the sea's surface. "A 10-year moratorium on deepsea mining is an appropriate application of the precautionary principle in circumstances where the consequences and need for this type of mineral exploitation is not well understood," the EDO's BJ Kim told The Guardian. "But it's not only the risks that are not well understood, it's also clear that appropriate legal frameworks for mining of this kind are not in place, either in the Pacific or elsewhere. This type of commercial experiment in the ocean should not progress without effective regulatory measures for risk mitigation, monitoring and enforcement of conditions."

Communities bordering the Solwara 1 project have been concerned about a broad range of environmental impacts, Kim said, including minerals leaching into seawater affecting fisheries and livelihoods, the extinguishment of unique sea species, and the risk of accidents and spillages. "Communities are still living with the impacts of land-based mining disasters such as Ok Tedi and Panguna. Just this year in the Pacific, we've seen oil and ore spills in Solomon Islands and the spillage of an estimated 200,000 litres of toxic red slurry from the Ramu Nickel mine in Madang, PNG." Besides PNG, the tiny island nation of Nauru has been deep sea mining's strongest supporter. Start-up DeepGreen is seeking to extract cobalt and other metals from a 75,000 sq km zone in the Clarion-Clipperton Zone in the Pacific, over which exclusive control has been granted to Nauru. DeepGreen has secured \$150m in funding, the bulk from Swiss-based Allseas, to begin feasibility studies. Nauru is a country already scarred by mining. More than 80% of the tiny island's landmass has been rendered uninhabitable by phosphate mining during the 20thC, most by colonial powers the UK and Australia.

Seabed mining to offer economic hope for Cook Islands

Anneka Brown, Cook Island News, September 12, 2019



Researchers waved to family on shore, as the Grinna II left the Avatiu Harbour yesterday.

Government has rejected international calls for a 10-year moratorium on undersea mining. Deputy Prime Minister Mark Brown describes a proposed moratorium as "confusing", saying Cook Islands are among only a small number of Pacific islands that have the chance to mine their seabeds. There has been gathering momentum in support of a moratorium: it was proposed by Fiji Prime Minister Voreqe Bainimarama at last month's Pacific Islands Forum in Tuvalu, and has now been backed by Vanuatu and Papua New Guinea. But Brown was sceptical, saying Fiji wasn't much involved in seabed minerals. He spoke to Cook Islands News after farewelling research vessel MC Grinna II yesterday morning. The ship left the Avatiu harbour carrying officials from Cook Islands Seabed Minerals Authority, in the first Cooks-crewed expedition since the 1980s to collect samples from the seabed of the exclusive economic zone. Brown indicated the Cooks were preparing to go it alone: The undersea minerals exploration could provide the resource the country needed to fight climate change, when other countries' aid funding dries up. The mining of seabed minerals would help diversify the economy, after the Cooks become a developed country and lose development aid assistance, as well as facing greater difficulty accessing climate funding.

Brown said donor countries were withdrawing their contributions to the Green Climate Fund. "We have to take responsibility for our own resilience funding to protect our country against the impacts of climate change and this resource provides us with the means to do that," he said. "We see our research and exploration on seabed minerals as something that is positive for our country and contributing to reducing global emissions." It is important to look at how the Cooks would fill funding gaps after becoming a developed country, he said, and to look particularly at the wealth that exists in the ocean. Although the way government revenues will be calculated was unclear, he said, it was estimated that with a three per cent royalty, the industry could generate an annual revenue of US\$45m (NZ\$70m) – about three times the revenue from fisheries or nearly a third of tourism's earnings. The Cook Islands was the first Pacific nation to develop a law for managing seabed mining and also had some of the most progressive marine legislation in the region, known as the Marae Moana Act 2017, which makes conservation the focus of all ocean-based activity. Brown said:

"It's inevitable that we will turn to our ocean for our wellbeing." Fiji had little involvement in seabed minerals activity, Brown said, so for them to propose a regional moratorium on something that was not really a regional asset was "confusing" and wasn't accepted at them Pacific Islands Leader's Forum. "It's different from fisheries that is a regional asset, but mineral stocks are static and there are not many Pacific island countries that have mineral resources like the Cook Islands." In fact, the Cook Islands were unique in being the only country in the Pacific where polymetallic nodules existed in our waters. In the Cook Islands the nodules are mainly in the South Penrhyn Basin 5,000 meters deep which contain valuable minerals such as Manganese, Cobalt, Nickel, Copper and even rare amounts of Titanium. Some environmentalists are concerned that mining the seafloor could destroy fragile marine habitats and further accelerate the destruction of ocean ecosystems.

Mountain of allegations & many questions about MRDC scandals

Mekere Morauta, PNG Attitude, 12 September 2019

New information about the scandal-plagued Mineral Resources Development Corporation has become available, reinforcing the urgent need for an inquiry into its operations and the status of the hundreds of millions of kina it manages on behalf of landowner companies. There is now a mountain of allegations about MRDC and its landowner subsidiaries. I expect that in the coming weeks more will be revealed about their dubious activities and the real value of the investments they have made, purportedly in the interest of landowners. The latest revelations affirm prime minister James Marape's decision to hold an inquiry into MRDC, and add substance to existing allegations of possible fraud, misappropriation, abuse of office and breaches of various laws including the Public Finances (Management) Act, the Companies Act and the Auditor-General's Act. It is in the public interest that these allegations are fully tested in a formal inquiry.

The new allegations came within a matter of hours of public comments in defence of MRDC and their own operations by Gulf Governor Chris Haiveta, the interim chairman of MRDC landowner company Petroleum Resources Gobe, and John Natto, the chairman of MRDC's Petroleum Resources Kutubu. They covered a wide range of activities by MRDC and its subsidiaries, including the expenditure of landowner trust funds I identified in parliament on 4 September. One example is K30 million that was allegedly withdrawn from an MRDC subsidiary's account in November last year. Landowners have an absolute right to know the details of the processes involved in its use, the people responsible, the purpose of the expenditure, and the ultimate destination of the funds. There are some important questions the prime minister's inquiry should consider in this specific instance:

Where did the K30 million come from – was the ultimate source an account held by Petroleum Resources Gobe?

Was the K30 million drawn down in November 2018, and was approval granted by the PRG board at that time?

Was a board meeting, not attended by landowner directors Philip Kende (then chairman) and George Kisi, held in January this year to restrospectively ratify the draw-down?

Is it true that the K30 million was then split between Petroleum Resources Kutubu and Mineral Resources Star Mountains then shifted out, purportedly to pay for a shortfall in finances for the construction of the Hilton Hotel/Star Mountains Plaza? On what authority did PRK and MRSM accept the transfer of funds to their accounts and is there any documentation to support the transfer? Can the MRDC, PRK and MRSM boards demonstrate with documentation that the money was actually used on the Hilton, and not for some other purpose? These are just some of the concerns about MRDC and its landowner subsidiaries raised by credible sources. Other allegations have been made about MRDC's involvement in HeviLift, Dirio Gas and Power, resorts in Samoa and Fiji, the Four-Mile Casino, Ela Beach land and Moran Haus in Lae.

It is clear from the reaction of MRDC that it is terrified of being exposed to the disinfectant of sunlight – it would much rather its activities remain hidden from scrutiny. I have been reliably informed that extraordinary measures have been taken by board and management to cover up their activities, including IT measures and video surveillance of staff members. In the face of this MRDC campaign against transparency and accountability, I encourage members of the public with information about MRDC and its activities to contact the Police Fraud Squad the decision by the MRDC group not to publish all its audited accounts means that public suspicions and questions will not go away. So I urge Governor Haiveta and Mr Natto to use their influence and involvement to ensure that MRDC publishes all the group's outstanding audited financial statements. It is the lack of verified information, and the refusal of auditors and the Auditor-General to sign off on many financial statements, that give credence to the public's fear that all is not well within the MRDC group.

Govt Cuts All Exploration Investments After Nautilus Debacle

Post Courier, September 12, 2019

Minister should identify the individuals responsible for the decisions that have led to losses of over K375 million. If there is zero culpability and zero transparency taxpayers can expect they will continue to get fleeced. The government has put a blanket ban on exploration investments after it was dealt a major blow in losing K375 million in the very risky Solwara 1 project. Its attempts to recoup some money, at least US\$50.8 million (K172m) has been constrained so far as Solwara 1 joint venture partner Eda Kopa Limited (Kumul Minerals Holdings Limited subsidiary) had the claim disallowed by the British Columbia Supreme Court appointed monitor PricewaterhouseCoopers (PwC) Canada last month. KMHL was seeking an unearned contribution claim during the Nautilus Plan of compromise and arrangement process catered for under the Canadian Companies' Creditors Arrangement Act.

Minister for Public Enterprise and State Investment Sasindran Muthuvel in an interview with Post Courier has told Kumul Minerals and Kumul Petroleum to stop such exploration investments. He said the deal started from the time of the previous government. "They went through arbitration and in 2015 they decided to pay upfront US\$120 million (K375 million) which was obtained purely as a loan and then we entered into this highly risky project," Minister Muthuvel said. "Now we stand to lose all of these monies... the Canadian Court in the process of the developer Nautilus Minerals sought creditor's protection from (the) British Colombia court in Canada and they appointed PriceWaterHouseCoopers as their administrator." "We put our claim for US\$50.8 million to retrieve some money back but unfortunately there is very little room or chance for us to get back any funds

because they have exhausted all the funds." "We stand to lose this major funding which is really a major blow for us."

Minister Muthuvel said that was a very tough lesson to learn as a Government not to enter into very risky investments. "This has shown that not necessarily we as a government must embark into every exploration investment. We should look at our tax regime, we should look at our royalty regimes whereby how we can generate some of the revenue of these tax regimes rather than insisting on equity, especially on this kind of scientific or research project where there is uncertainty to it." "To tell you the truth, from day one the project was carrying negative rate of returns, that means we knowing very well that this project is not going to yield any positive income, we knowingly agreed to go into this project with a negative investment or negative rate of returns, which is highly risky and it's again guaranteed by State."

Minister Muthuvel also revealed that the investment was not carried out in the books of Kumul Mineral. "I am appealing to both Kumul Mineral and Kumul Petroleum to stop all kinds of exploration investment, to slow down, and to take stock of what we have and also to help government at this tough economic time." As of last week, September 5, according to PwC's update on the process currently underway, Eda Kopa and the Nautilus Group have individually led applications for the September 10, 2019 Court hearing in Canada. "Eda Kopa is seeking to set a schedule to have the validity of their claim (the "Eda Kopa Claim") determined. "The Nautilus Group is seeking to have the validity of the Eda Kopa Claim determined on September 10, 2019, or as soon as reasonably practical afterwards," PwC Canada stated in its last update on the process.

Firms 'prepare to go elsewhere'

September 12, 2019, The National Business

RESOURCE companies are prepared to take their business elsewhere if the Government decides that the extractive sector is not the way to go, says Total E & P PNG Ltd corporate affairs director Richard Kassman. "If the State doesn't want us to explore and extract, we will go somewhere else to explore and extract," he said. Kassman, who is also a vice-president of the PNG Chamber of Mines and Petroleum, said recently the extractive industry understood the decision was the prerogative of the Government and would not question it. "We, as the chamber, understand that it is the prerogative of the State, and firms within mining and petroleum sector are not going to be questioning the decision."

Kassman said, however, it needed to be understood that the extractive industry was part of a bigger world scene and Papua New Guinea was also competing with other countries and any legislation needed to be considered carefully. "It is a worldwide decision and it is not just about Papua New Guinea. We are in competition with other countries like Indonesia, Malaysia, Myanmar and within our region with the balance sheet and shareholder money to invest in our country," he said. "This is what we do and this is the business but if the country wants to go down this road, it must look at the contributions that the industry has made to the country." Kassman said the contributions of mines in the country going back as far as when the Bougainville copper mine was in production were significant and any decision and legislation needed to be done in a phased manner and analysed carefully.

Lutherans protest by cleaning up

September 11, 2019, The National

LUTHERAN church members in Lae and nearby circuits in partnership with Karkar Island, Madang, stand united to conduct a cleanathon along sea shores to protest against dumping of mine waste into Huon Gulf Bay. The peaceful demonstrations using canoes and traditionally-attired warriors are scheduled for Saturday-Monday at Wagang (Sipaia), Vocopoint and DCA Beachfronts. Participating circuits are Wampar, Lae city, Laulu and Lae. They will be joined by church members from Karkar Island. Yabem president Yassam Aiwara said members from Karkar Island walked from Madang to Wampar. Aiwara said those who travelled by canoe were in Gitua and expected to arrive in Lae on Friday via Finschhafen. "We stand behind our Lutheran World Federation principal – creation not for sale, human beings not for sale and salvation not for sale," he said. "This is a peaceful demonstrate church members will conduct in a way of cleanathon.

"It will be conducted along their respective suburbs and beachfronts on Saturday. "It is purposely to show that human beings' livelihoods are intimately attached with their natural surroundings. "Therefore, we care for our natural environment God has created for us to manage wisely." Yassam said members would gather at Wagang on Sunday for a church service to thank God for the creation and His blessings to humans. "On Monday, a float in protest against deep-sea tailing will commence," Yassam said. "It will involve people traditionally attired and with banners and placards. "The attired people will protest along beachfronts and solwara (sea) using canoes in Wagang, Vocopoint and DCA."

Youths launch canoe to carry out awareness

September 11, 2019, The National

EVANGELICAL Lutheran church of PNG (ELCPNG) youths have launched a traditional canoe to carry out awareness against deep-sea tailing and dumping of mine waste in the sea. Lae circuit youth from Yabem district in Labu Butu 1, St Kelamu parish have taken the stand against a proposed pipeline from Wafi-Golpu in Huon Gulf to the sea to transfer waste. Labu ward councillor Kipu Anonga and Evangelical Lutheran church Yabem youth coordinator Awanganu Geamukwi said the canoe showed the church's stand against deep-sea tailing in Morobe. "As concerned future leaders, we need to make this known to the government and the developer before our environment is destroyed," Geamukwi said. "We are not saying no to mine, but we want the developer to look for other alternatives or options to dispose its waste."

Geamukwi said the church had the responsibility to protect, educate and inform its people and the country about such issues and the canoe awareness was a start. A team of youths from Madang's Karkar Island – have also carried out awareness along the Madang coastline and will be meeting up with the Lae youths next week for a combined awareness programme over the Wafi-Golpu and Basamuk mine waste disposal. The team will then attend the National Youth Conference in Lababia village in Huon Gulf from Sept 23 to 29. The awareness theme – Creation not for sale, human beings not for sale and salvation not for sale – was launched last Sunday. It was titled "Mete Pana" which in local Labu language means "the way of the gospel".

Ramu NiCo ready to invest K3mil into project fund

September 10, 2019, The National Business

MORE than K3 million is ready to be paid into the trust account for Ramu NiCo Project Future Generation Funds, according to the mine's management. Ramu Nico Management said that the monies were from the three royalty payment components Jan 2013 to June 2017, July to Dec 2017 and Jan to Dec 2018, and totalled K2,009,812.32, compensation payment of K1,282,480 from 2006 to 2018 and K5000,000 from Highlands Pacific operation from 2000 to 2005. "So we now have a total of K3,793,292.32 ready to be paid into the Trust Fund Account. "The money is divided among

Kurumbukari, Basamuk, Inland Pipeline and Coastal Pipeline landowner's association," the company said in a statement.

The company said the only hold up now was from Mineral Resources Authority (MRA) failing to liaise with the Treasury department by law and procedure to create the trust account that would enable Ramu Nico to deposit the funds. "MRA and Treasury are the responsible statutory bodies and were informed. We followed up but no responses from them to date." The company said this following Madang Governor Peter Yama's claim that no royalties and Future Generation Trust Fund money had been paid and the company would be sued. From the three royalty payments so far, Ramu NiCo has paid K50,245,308.24 to the project landowners and beneficiaries to date where Madang provincial government received its eight percent share of K4,019, 626. 96 paid into its operating BSP account.

"With the low nickel-cobalt grade including lower commodity prices, the company is unable to pay royalty on a monthly basis as per the Mining Act so it was agreed through the Ramu Nickel Project Royalty Policy approved by the Mining Minister that Ramu nickel project's royalties could be paid on an annual basis. "We hope our stakeholders including the landowners and Madang provincial government understand that we are making less profit, yet managing to make all stakeholders happy by paying their royalty monies," the company said. The company management said it was open to discussions if any organisation or parties to the project had a query on any issues relating to the project instead of going to the media to speculate with information that was not true and would be detrimental to the project.

Slurry spill investigated

September 10, 2019, The National Business

ENVIRONMENT, Conservation and Climate Change Minister Geoffrey Kama says analysis and results of the samples taken from the slurry spill at the Ramu Nico mine will be announced when an assessment is completed. Kama said in a statement that the samples from the incident that occurred at Ramu Nico's Basamuk processing plant in the early hours of Aug 24, which spilt into the sea of Basamuk Bay, were sent to Brisbane, Australia, for analysis. He said results would be made known in a detailed report. Kama said a technical failure of a slurry pump at the neutralisation surge tank to the processing plant had caused the spill to occur. Kama said further information of the technical failure were matters under investigation by the Conservation, Environment and Protection Authority (Cepa) and the Mineral Resource Authority (MRA) to establish the cause of the incident.

"It is understood that a certain amount of slurry overflowed from the surge tank within the process plant and drained into the sea," Kama said. "The sea waters along the bay were discoloured red. "The sea discolouration was visible for at least two days." Immediately after the spill was detected, the company's emergency and response team was activated and their health safety and emergency response unit was deployed. The company reported taking immediate corrective measures to fix the failed pump and stopped the spill from discharging further slurry into the sea. "I was impressed with the resilience of the Basamuk community. They are witnessing a major incident on their door step. "The spill is unacceptable and should not happen again," Kama said. "Best preventative measures have been implemented and enforced immediately. "Any discomfort caused to the community as a result of the spill incident is currently being addressed and any scientific facts and results will be announced as soon as a detailed report is completed."

Refinery not responsible: Mine

September 9, 2019, The National Business

THE Deep Sea Tailing Placement (DSTP) system used at Ramu NiCo's Basamuk Refinery in Raicoast district, Madang, is effective and safe and has no connection with the slurry spillage incident last month, according to the company's management. "The reported slurry spillage incident on Aug 24 was encountered unintentionally from the refinery," the company said. "It is misunderstood by the community and public to be the failure of DSTP system. The slurry spill incident has no connection to the DSTP system. "The slurry spilled were from the neutralisation area rather than tailing treatment circuit at the Basamuk refinery." The company said the DSTP system was a technical method utilised to deal with the tailing as an alternative of conventional tailing dam. The system has been successfully adopted in many industries, including Lihir gold mine in New Ireland, PNG and Island copper mine in Canada to name a few.

The Ramu NiCo project adopted the DSTP system to deal with the tailing after comprehensive investigation and consultation and the system was designed by a reputable company from the United States," the company said. "In light of the non-toxic nature of the tailing of Ramu Nickel project and the peculiar submarine topography of Basamuk Bay area where there are few ideal canyons existing in the deep sea which is favourable to the DSTP system utilisation, Ramu NiCo Project adopted DSTP system." Since the formal operation in December 2012, the DSTP system proved successful for more than seven years. The tailings are placed more than 200 metres below the sea and no upwelling or rupture occurred faced since its inception. "A company from Australia is engaged every year to monitor and inspect the integrity of DSTP pipeline system using a remotely controlled vehicle (ROV).

"The operational marine monitoring programme (OMMP) was required by Conservation and Environment Protection Agency pursuant to the Environment Act of 2000 and the Environment Permit (EP) issued to the Ramu Nickel project to monitor and assess the potential impacts of the DSTP system on the marine ecosystem in the Basamuk Bay area every five years. "Ramu Nico Management (MCC) Limited, as a responsible company, is committed to operate the project in a safe and environmentally sound manner," the company said. "The company will undertake its responsibility over damage caused to the sea on Aug 24 from the slurry spillage once the extent of the damage is independently verified by responsible state agencies (Cepa and MRA)." Ramu Nico said earlier that the incident had occurred accidentally and not out of negligence from the company to comply with relevant industrial standards and practices. "It must be reiterated that the incident occurred in Aug 24 at the Basamuk refinery has nothing to do with the DSTP system."

Industry players control authority: Tongamp

September 9, 2019, The National Business

JIWAKA Governor Dr William Tongamp says the Mineral Resource Authority (MRA) is manipulated and controlled by industry players and not independent. He made the comments when debating on the issues of the toxic slurry spillage in the Basamuk Bay in the Madang recently. He said MRA needed to start working with specialist agencies like the Conservation and Environment Protection Authority (Cepa) to deal with environment issues emanating from mines. Tongamp claimed MRA was not an independent body of the state anymore as it was controlled by the industry. He said the reports they (MRA) published in the media was information provided by the industry players (developers) and not independent reports to be relied on so it was time MRA did its own work in tandem with Cepa to deal with environmental issues.

Tongamp said with the number of mines being operated in the country, it was crucial for the relevant state agencies to moderate, regulate and monitor their activities to ensure they practiced the highest standards of safety and environmental protection so the people and their land was safeguarded. "While we are speaking today, Ok Tedi and Porgera are still pumping into the river systems and Lihir is sending it into the sea, Sinivit mine too and Ramu nickel mine as well. All these companies obtained concessions and signed agreements to extract our resources but sometimes we must be cautious as well," Tongamp said. "Even a little spillage must be taken seriously and not taken lightly as they continue to do not by colluding with organisations such as Mineral Resource Authority (MRA), who continues to publish on the media statistics and reports given by the companies. This kind of practise should not be encourage in this country. These companies should conform to our laws."

Yama Invites PM To Visit Basamuk Bay Gorethy Kenneth, Post Courier, September 9, 2019



Madang's first environment affected baby has been born in Basamuk with deformed fingers and toes, Madang Governor Peter Yama told Parliament during grievance debate last Friday. And gardens, plantations and vegetation at surrounded and nearby Ramu Mine areas are now seriously affected, he said. Further, Mr Yama has asked Prime Minister James Marape to visit Madang, specifically the affected villages and the mine and to see for himself the deformed baby including the affected villages if he was serious about "Taking Back PNG". "If Prime Minister wants to prove it to himself beyond reasonable doubt, please, I am willing to have you come to Madang, I will fly you there, you see the deformed baby, you see the land, you see the sea yourself and see all the people that are affected and suffering, your people out there, then you can believe yourself," he said.

He spoke again about all the issues he raised including those of the electorate MPs to the Parliament reiterating the mine closure and a review with a new MOA to be signed in favour of his government. "Mr Speaker, I am very depressed since ol tokim mi, olsem wanpla mama ikarim baby wantaim fourpla finger tripla leg, deformed baby lo ples, this is the first time and looks like more mothers will have the same problem," Mr Yama said. "I cannot allow this to happen in Madang. Madang is so beautiful I cannot bear to see my children born deformed and the last thing is I don't want my people and my people must not blame me and my children that I have done injustice to them because I was the governor."

And I have the privilege to tell this Parliament, there's no other way to help this people but to shut down the mine and re-negotiate. "Prime Minister if you want to take back Papua New Guinea, you must start with Ramu Nickel. "On record, you will see, I never signed the agreement and I refused to go to China to go and sign the agreement as the Member for Usino Bundi. "The agreement has expired and we must now sign the MOA, and look at all these issues that we have been raising all through, let's have a win, win situation here, the last thing we want is, if there is no even playing fields, what's the purpose of having Ramu Nickel?"

Another call for PNG to cancel sea bed mining licences

Radio New Zealand, 6 September 2019



The former governor of Papua New Guinea's Madang province, Sir Arnold Amet, has renewed his call for the government to cancel sea bed mining licenses. This comes as Canadian miner Nautilus, in which the PNG government has a 15 percent stake, is fighting through the courts for its economic survival. Sir Arnold said he feared that Nautilus, which had been close to beginning sea bed mining at its Solwara One site in the Bismarck Sea, could on sell its PNG licenses. The James Marape government is backing the call made by Pacific Forum leaders for a 10 year moratorium on seabed mining, but Sir Arnold said it must go further. "Our preference is, quite obviously, for cancellation of those licenses and a total ban until such time as science can truly satisfy us that that [seabed mining] is worthwhile and economically and environmentally sustainable project. At the moment there is no such evidence," Sir Arnold said.

Total welcomes govt decision to seal deal

September 6, 2019, The National Business

TOTAL SA, the operator of the US\$13 billion (K44.2b) Papua LNG, has welcomed the Government's decision to honour the gas agreement signed in April. "It is a positive signal for foreign investment in the country," a Total SA spokesperson told The National yesterday. "We welcome the decision of the PNG Government to honour the gas agreement." Former Petroleum Minister Dr Fabian Pok also welcomed the Government's decision. The Marape-Steven Government's decision to stick to the initial agreements came after a month of discussions held both in PNG and abroad to revise the gas agreement that was signed by the previous O'Neill government. Visiting academic Dr Marcel Schroder told The National that generally, either in the resource or non-resource sectors,

stable policies were important. "Economists argue that stable policies towards foreign investors are beneficial to developing countries, at least in the long run, regardless whether it concerns the resource or non-resource sector," he said.

Pok, in a statement yesterday, said the fiscal terms and general economics of the agreement was one of the best project agreements signed on behalf of the State. "Before negotiations for the agreement began, we made it clear to Total and other participants in the project that the interest of the State, the provincial government, and landowners needed to come first before all else," he said. Pok said the three key benefits that were an improvement from the PNG LNG Project included a two per cent production levy that would ensure revenue flow to the government as soon as export started; a better calculation of royalty for landowners and the provincial government; a portion (five per cent) of the gas set aside for domestic use at a low fixed price. "On top of that, the operator of the project has agreed to carry the State's equity costs. That removes the task of the Government seeking a loan on the international financial market," Pok said. "Given our current economic conditions, that would have been burdensome."

Govt Ignored Warning On Ramu Mine Toxic Waste – Kaluwin Elias Nanau, Post Courier, September 5, 2019



Head of the school of environmental science and geography at the University of Papua New Guinea, Professor Chalapan Kaluwin, says the government was forewarned about the impacts of toxic waste from the Ramu nickel mine likely to find its way to the sea. He said this was during the development of the mine and while he was living overseas, as part of a group who did research on the oceans and likely environmental impacts on communities. Prof Kaluwin told the national oceans forum yesterday in Port Moresby that their advice to the government was to dump waste at a valley inland. "I was working for the Australians," he said. "We were asked to look at the maritime aspect of it."

He said the slurry would end up at the ocean "because it's so close and we know the depth, we have done research on depth with Australians and Americans". "The document is still there," he said. "The science for this is that it's a chronic zinc oxide that ended in the ocean and it's toxic." Prof Kaluwin said because of the lack of capacity by the government or compelling interest in earning

money, their advice was ignored. "They were more interested in money but not protecting the seas; not protecting the long-term sustainability of people living in Madang and along the coast," he said.

"We did research all the way from Milne Bay to Madang... all the way to Indonesia... we knew the currents – how it was acting. "There's some fine particles that can be swinging in and out of Madang." Prof Kaluwin, who has been vocal in opposing the Solwara 1 project in New Ireland, warned mining in the Central Province could face a similar tragedy. He said the country must be reminded that if "we considered technology, we should be able to know how to use it". "Science tells you that you bring in a new technology until you test it," he said, describing the Solwara 1 undersea mining project as dangerous and an attempt to use PNG as a guinea pig to test technology.

Indonesian gold miners killed in West Papua

Radio New Zealand on 5 September 2019

Five gold miners in West Papua's central highlands were killed by local residents on Monday. National police spokesperson Dedi Prasetyo said 74 miners were evacuated from Yahukimo regency after being attacked. Three miners were also injured by the residents, who were armed with machetes, bows and arrows. Mr Prasetyo told *Reuters* it was unclear whether the incident was linked to growing unrest across Papua. A spokesperson for the West Papua Liberation Army, a rebel group operating in the highlands, said the gold miners were Indonesian immigrants, killed because they "came to Papuans lands and stole the gold from indigenous Papuans lands". The Liberation Army did not claim responsibility for the attack but warned against further gold mining in the region.

Moratorium on deep sea mining in PNG welcomed

PACNEWS, 4 September 2019

Papua New Guinea Prime Minister, James Marape supported Fiji's call at the Pacific Islands Forum for a 10-year moratorium on seabed mining. The PM's support for a moratorium was welcomed by the PNG Council of Churches at its meeting last week. However, the churches and civil society remind the Prime Minister that the environmental, social and economic risks of seabed mining necessitate a complete ban. An open letter to PM Marape published in June from the PNG Council of Churches, Voice of Milne Bay, Alliance of Solwara Warriors, Bismarck Ramu Group, and the Center for Environmental Law and Community Rights seeks commitments to cancel all licences issued to Nautilus, to not issue any more sea bed mining exploration or mining licences, and to invest in truly sustainable local enterprises that will benefit local economies. Jonathon Mesulam of the Alliance of Solwara Warriors said, "We thank our Prime Minister for heeding the calls of our communities by backing a 10-year moratorium on seabed mining. But we need to go further to protect our seas, our livelihoods and traditions by imposing a ban."

Peter Bosip, Director, Center for Environmental Law and Community Rights claimed, "PNG's recent history is littered with many examples of land-based mines with disastrous impacts. It is very difficult to monitor and regulate the impacts of land-based mining let alone mines deep under the sea. Globally, ocean ecosystems are already under stress due to pollution, plastics, overfishing, climate change and accelerating biodiversity loss. "PNG has no need for seabed mining" stated Christina Tony of the Bismarck Ramu Group. "We are blessed with abundant fisheries, productive agricultural lands and marine life. Seabed mining will benefit only a small number of people who are already wealthy and not bring prosperity to our communities." Nautilus is now approaching liquidation and PM Marape has described Solwara 1 as "a total failure". PNG's investment in Nautilus has resulted in loss equivalent to one third of its last national health budget. The PNG Government through Eda Kopa (Solwara) Limited is attempting to recoup some of its financial loss through the

Canadian courts. Smaller shareholders considering a class action are hoping to collaborate with Eda Kopa.

A new international report describes how Nautilus' early investors pushed the PNG Government into purchasing a 15% share in its Solwara 1 project. These investors increased the company's share price with false promises of vast wealth and then walked away as multi-millionaires, leaving the company to flounder. Sir Arnold Amet stated, "The approval of Solwara 1 occurred under my watch as an MP and Governor for Madang'. I regret that the O'Neill government didn't adequately scrutinize that project and took up 15% equity in Nautilus PNG. It's time to rectify that situation. "Lets recognise this failed investment in the upcoming budget and ensure we don't enter into seabed mining joint ventures in the future or issue any more seabed exploration or mining licences. We now know how deep sea mining companies attempt to manipulate governments according to their own narrow profit motives without any conscience. We look to PM Marape to stand up for Papua New Guineans against the pressure exerted by these corporations," he said .

Wafi-Golpu To Be Delivered Under Marape-Led Govt

Gorethy Kenneth, Post Courier, September 4, 2019

Prime Minister James Marape announced that the government wants to get the Wafi-Golpu gold mine operational at the soonest. And the government is already in serious discussions with the Morobe provincial government to resolve issues while it prepares to finalise discussions with developers, Harmony and Newcrest. Mr Marape told a press conference in Port Moresby yesterday that they want this project to be their legacy as they look at other projects like the Porgera lease that has expired. He said as the country is going through tough economic times, this project will help boost the country's economy including others that they are now serious about addressing. Mr Marape also revealed that the government has given the green light to Total to proceed with the implementation of the Papua gas project, claiming that additional gains have been negotiated for the country under the project agreement.

"As a government, we are finishing this one," he said, adding: "It is signed by the (former) O'Neill government, (and) we allowing it to go. "Our government will enter into discussion with Wafi - Golpu and we are bringing to conclusion our issues with the Morobe provincial government. "Those issues will be brought to conclusion and as whole of government, we will sit in one and we will go into discussion with both Harmony and Newcrest so that is one other project that is looming on the horizon." Mr Marape also told the press that the government "is not considering" any more concessions to be given to resource project developers. "...and as I stated, the existing laws we have in place will not consider anymore concession (to give), but where we will win, as provided for by law, we will win, and where they (developers) win they will win," he said. "We are also looking into the Porgera lease that has expired.

"So those announcements will come in due course, as the nation has some big projects on the horizon. "Not all is looking gloom, although our economy is stressed a little at the moment and our treasurer is going through the numbers and hopefully tomorrow (today) or Thursday he will announce the numbers (as) he has seen (the) possibility of a supplementary budget that we have been talking about all along. "And that will come in due course but let me inform the country that all is not bad as it seems...we are working on the three or four projects that we have on the horizon and that will bring some economic activity and life into economy and hopefully going 2020 and beyond, we will gain some traction in the economy, and we have started with Wafi-Golpu."

Ramu NiCo: All royalties paid

September 4, 2019, The National Business

Royalties owed to the Madang government and other stakeholders in the Ramu Nickel project have been paid in full, the Ramu NiCo management says. The company said there were no outstanding payments as claimed by Governor Peter Yama. "The first royalty, cumulative from Dec 2013 to June 2017 was K25,537,210.13," the mine's management said following Yama's claim that no royalties had been paid and the company would be sued. "Madang provincial government received eight per cent of this amount which is K2,042,978.81. "The Madang government received K666,680 in the second royalty payment for the period from July-Dec 2017. "A total of K2,709,659.69 has been paid to the Madang government into its BSP operating account (No: 1000 1006 49)." Ramu Nico documents show that K1,309,966.96 for the Madang government from the third royalty payment for the year 2018 was with the company.

This followed an agreement with the parties in 2011, where Ramu NiCo would assist Madang in maintaining and managing the operation of public utilities at the mine relocation village and later deduct the cost from MPG royalty entitlements. "A letter was sent to the Madang government on July 26 regarding this subject with follow up attempts but we have received no response from the Madang government yet," the company said. "Once they respond then we are actually paying a total of K4, 019,626.65 in total as part of the 8 per cent component of entitlements to date to the Madang provincial government." The company said all LLGs in Madang had received their royalty entitlements (23 per cent) including a first payment of K5,873,558.33 followed by a second payment of K1,916,707.54, and a third payment for 2018 of K3,766,155.02. "Except for Bundi LLG, Usino LLG, Gama LLG, Astrolabe Bay LLG and Saidor LLG, who received their royalty entitlement directly, other LLGs have their royalty paid to the Madang provincial government's operating account as outlined in the revised project MOA.

"If they have not received their royalty component then they must ask the provincial government," the company said. Ramu Nico said its stakeholders entitled to royalty components under the project MOA had received all their entitlements, including the landowners and no one had been left out. "From the three royalty payments so far, we have paid K50,245,308.24 to the project landowners to date." The company now has funds in its account to be paid into the Future Generation Trust Fund for Kurumbukari Landowners, Basamuk Landowners, Inland Pipeline Landowners and Basamuk Landowners. "We have the money. We have written several times to Mineral Resources Authority (MRA) to liaise with the Treasury department by law and procedure to create the trust fund account and give us the account details so we can deposit the money.

"MRA and Treasury are the responsible statutory bodies. "We have followed up but no response has been given. "Madang provincial government can assist us and follow up to sort out the Trust Fund issue," the company said. The company said royalties were only paid after the sale of the nickel and cobalt. "The project started its first commercial shipment on November 2013. "Because of the low nickel-cobalt grade including lower commodity prices, Ramu Nico was unable to pay royalty on a monthly basis as per the Mining Act. "Hence it was agreed through the Ramu Nickel Project Royalty Policy approved by the state that the project's royalty can be paid on an annual basis."

PNG to discipline mining companies in breach of mining laws

PNG Today, September 03, 2019

Papua New Guinea Minister for Environment and Climate Change, Geoffrey Kama has informed stakeholders that his Ministry and the Department of Environment and Climate Change will strictly

follow the existing laws to discipline any mining companies in breach of any laws governing the mining industry and there are no short cuts in shutting down the mines. Kama said this when meeting with the Basamuk landowners on Sunday last week at Basamuk Refinery in the Rai Coast District of Madang province. He went to have an independent assessment on the Refinery's' Saturday 24 August slurry spill into the Basamuk harbor. His senior officers including Managing Director of CEPA, Gunther Joku and deputy managing director, Michael Maue including Madang Governor Peter Yama accompanied him to Basamuk.

Ramu NiCo President Gao Yongxue and his vice president Wang Baowen received the minister and his delegation in Madang and accompanied them to Basamuk. This is the second visit of a senior state minister after Mining Minister, Johnson Tuke who visited Basamuk Refinery for an independent assessment on Tuesday 27 August in his capacity as the Mining Minister. The Environment Ministers visit follows after his chief investigators from CEPA, Lave Michael, Joseph Umare and Robert Sine, Manager Mining with MRA were on the ground at Basamuk on Monday Aug 26 to conduct an investigation into the slurry spill. Kama told the principal Basamuk landowners that Marape-Stevens government will not go ahead and shut down Ramu NiCo Project or Basamuk Refinery as demanded but will strictly follow the laws so that all parties are given fair treatment.

The minister's call came after the landowners demanded that Basamuk Refinery be closed following the slurry discharge and other outstanding matters including socio-economic benefits. Last week, Member for Rai Coast, Peter Sapia, Madang Governor Peter Yama and the landowners demanded for the closure of Ramu NiCo Project. But Kama said investigation into the alleged slurry spill is still underway by the Mines Inspector and Mines Inspectorate alone has the power to shut down the mine and not him. Meanwhile, Als Environment Testing Laboratory in Brisbane, Australia will analyse the sea water samples collected from Basamuk Refinery to determine the concentration of heavy metal level in the sea area where the slurry entered after slurry overflow on Saturday 24 August at the refinery.

Ramu NiCo Management (MCC) Ltd designated ALS Ltd, an internationally recognised laboratory specialising in environmental analysis services to analyse the samples to give credibility to the final report that will be produced by MRA and CEPA. Vice president of Ramu NiCo, Wang Baowen said the Australian based company was selected after full consideration was given to accredited laboratories in PNG and abroad. He said after uncertainties and speculations have been created by various groups, Ramu NiCo wants to put these concerns to rest by results ALS Ltd will provide. "We understand the concerns of our landowners and the government. We know many people want to engage their own consultants. The best we can do is engage an independent and credible third party like ALS so we all accept their analysis," Mr Bao said.

"The inspectors from CEPA and MRA who investigated the incident will separately receive the results and make their own recommendations, off which we will accept and implement as required." He said ASL Ltd has branches throughout Australia and its head office in Brisbane where the heavy metal testing will be done and results anticipated for return approximately within two weeks from Friday last week. "Under CEPA direction, we have collected seawater samples from five different locations, the primary one being the slurry discharging point within the harbor. Samples collected vary in depth from the surface, including five meters below the surface to enable cross section of sampling to determine concentration of potential heavy metal at different layers of the harbour," Mr Bao said.

"CEPA and Ramu NiCo will receive the test result directly, although separately from the Brisbane analysis laboratory. "CEPA and MRA will interpret the analysing result and determine whether there are significant impact on the harbour and surrounds. Ramu NiCo will also use the result from third party, ASL and Basamuk Central Chemical Laboratory to analyse and report to CEPA and

concerned government bodies." He said Ramu NiCo is committed to get to the bottom of the investigation by engaging third parties and the notable laboratory in Australia.

Ex-US Interior official joins Papua New Guinea-based oil company Oil Search Tim Pearce, Washington Examiner, September 04, 2019

An ex-top official in the US Interior Department is joining a Papua New Guinea-based oil company days after leaving the Trump administration. Joe Balash served roughly two years as the Department of the Interior's assistant secretary for land and minerals management. Balash announced his departure from the government on Friday and confirmed his new position at Oil Search in an interview with the *Washington Post* on Tuesday. Balash's work at the Interior included expanding oil development on federal lands in Alaska, such as the 1002 Area in the Arctic National Wildlife Refuge. The 1002 Area is a 1.5 million-acre oil reserve created in 1980 as part of the same legislative package that established ANWR.

The Trump administration's ethics pledge, which Balash signed after joining Interior, prohibits exadministration officials from lobbying their former agencies for five years after they leave. Oil Search's operations in the United States include Alaska, though the company's business is largely on state lands. Balash will work on energy policy for Oil Search. He said he will abide by the ethics pledge and refrain from lobbying Interior officials, but "I'll supervise those who do" need to work with the federal government. "I have a ton of restrictions dealing with the Department of Interior," Balash said. "Most of Oil Search's properties are state lands. There isn't really the federal nexus."

Papua New Guinea sticks to gas deal with Total for \$13 billion project Sonali Paul, Reuters, September 3, 2019

Papua New Guinea said on Tuesday it will honor a gas deal that Total SA signed with a previous government for a \$13 billion plan to expand gas exports, after securing minor concessions from the French company. The decision removes uncertainty over the plan to double liquefied natural gas (LNG) exports from the Pacific nation that arose after new Prime Minister James Marape came to power in May promising to win more benefits for the impoverished country. The Papua LNG gas agreement is one of two agreements needed for Total and its partners, Exxon Mobil Corp and Oil Search Ltd, to go ahead with the LNG expansion plan. "The government has now cleared Total to proceed full steam ahead with the implementation of the Papua Gas Project," Petroleum Minister Kerenga Kua said in a statement. Doubts about the gas deal escalated in August, when the government suddenly called for talks to revise the agreement.

Kua said Total had made some concessions, promising to prepare a detailed plan outlining how much local equipment and services would be used in the project and to negotiate with any third party wanting access to the project's petroleum pipelines. It would also be willing to negotiate for Papua New Guinea to take a stake in the pipelines after the state has repaid all its loans and costs on the project, and would consider buying LNG carriers in a joint venture with the state. "Most of these are substantial new concessions on potential future benefits," Kua said. The companies had insisted that the Papua LNG gas agreement that Total signed in April should be honored, and Oil Search warned in August that costs on the project could rise if it was delayed by prolonged talks. An analyst said the government had capitulated to Total, winning only non-committal offers to consider future steps that might benefit the country. "This is a big win for the industry, but they can't say that, because they need to let the prime minister and Kua save a little political face," said the analyst, who declined to be named due to the sensitivity of the issue.

The three companies welcomed the government's decision. "We are looking forward to working with the Government of PNG to conclude the required gas agreement for the P'nyang project," Exxon Mobil said in an emailed comment, referring to the second of the two agreements needed. Oil Search's Managing Director Peter Botten said the project would "help deliver billions of kina in value to the PNG economy, support local businesses and provide greater employment opportunities for thousands of Papua New Guineans," referring to the PNG currency. Shares in Oil Search, which have dropped over the past three months amid uncertainty over the gas agreements, closed 2.1% higher shortly after the government's announcement in a flat broader market. "There should be a handsome re-rating," Adrian Prendergast, an analyst at Morgans, said a day ahead of the announcement. "In the time the political developments have been happening it (Oil Search) has really derated more than the total value that we place on this expansion." At Monday's close, Oil Search shares were down about 14 percent since the previous prime minster stepped down.

Eda Kopa Claim Disallowed By Monitor

Matthew Vari, Post Courier, September 2, 2019

Nautilus Minerals Solwara 1 joint venture partner Eda Kopa Limited has had its claim of US\$50.8 (K172.8) million disallowed by the British Columbia Supreme Court appointed monitor PricewaterhouseCoopers (PwC) Canada. This presents a setback for the state owned investment under Kumul Minerals Holdings Limited, as it seeks the unearned contribution claim during the Nautilus Plan of compromise and arrangement process catered for under the Canadian Companies' Creditors Arrangement Act (CCAA). According to documents from the monitor's (PwC's) status update as of August 28 last week, it referred to its Monitor's Fourth Report, dated August 9, which called for a need for resolution with respect to Eda Kopa's claims and CCAA proceedings.

Where the monitor disallowed the claim on the basis that Eda Kopa's claim is an equity claim, and that the agreements between Eda Kopa and the Nautilus Group do not support any such claim. The report also stated that on July 31, Eda Kopa sought to dispute the monitor's disallowance by submitting a Notice of Dispute, however, according to the monitor the notice did not provide any new information to the Nautilus Group or the Monitor, and, accordingly, neither saw any basis for withdrawing or amending the disallowance of Eda Kopa's claim. According to the monitor on August 6, it and Nautilus received notice Eda Kopa retained Canadian counsel and led for an appeal that is set for September 10 this month to hear Eda Kopa's appeal of the disallowance of its claim. A resolution to the matter is expected to be reached on or shortly after September 10.

According to the monitor's update if a resolution cannot be achieved in both Eda Kopa's claim through the CCAA process or its general relationship with Nautilus going forward then the plan will not be implemented resulting in no distribution to affected creditors as anticipated and the Nautilus group restructuring will fail. The CCAA plan was approved early in August at a meeting of affected creditors along with an acquisition plan by its main lender Deep Sea Mining Finance Limited would take over a number of the 44 entities registered under the Nautilus Group in nine jurisdictions around the world.

Fleming: Payments For Solwara Loan Made Since Day 1

Matthew Vari, Post Courier, 2 September 2019

Payments for the State's loan from Bank South Pacific for its 15 per cent stake in the now defunct Solwara 1 project have been made since day one. The K375 (\$120) million bullet loan taken out by Kumul Minerals Holdings Limited subsidiary Eda Kopa in 2014 will fully mature in 2021 according to BSP Group CEO Robin Fleming. Mr Fleming was referring to queries from stakeholders, at

BSP's half year presentation last week, if the bank was calling upon the State's guarantee on the loan taken out for its equity in the project, which the bank has denied. "There has been no call on the State, and Eda Kopa, the Solwara (1) loan is in the name of Eda Kopa. "It has an expiry date of 2021, but no guarantee has been called upon.

"All payments to BSP have been made since day one, the loan has been fully serviced and the manner which that loan was structured was that you have a borrower in the name of Eda Kopa Limited and co-underwritten or fully supported by the Independent State of PNG. "In terms of the original approval of that facility, which doesn't mature until 2021, all payments have been made whenever they are due," Mr Fleming said. He said discussions really are with Kumul Minerals who owns Eda Kopa to clean up their own balance sheet and possibly look to have it more directly with the Independent State of PNG which provides the guarantee.

Yama Wants Ramu Mine Shut Down

Post-Courier, September 2, 2019

Madang Governor Peter Yama wants the Ramu nickel mine closed, a report tabled, review done and funds owing to the Madang provincial government paid before it starts operating again. An irate Mr Yama held a press conference last Friday asking why Ramu nickel-cobalt mine was exporting K27 billion yearly and yet nothing has been paid to the provincial government. He urged Prime Minister James Marape to be serious about Ramu with no more delays. He also said other provinces with mines have received royalties and payments, but for Madang – nothing. "Prime Minister, I am in great distress, I am angry with a righteous anger because there is great injustice done to the province of Madang, and as the Governor of Madang I am very jealous, yes, envious of my two close friends, Governor of Enga and Governor Of New Ireland," he said. "When I visit my friends, they always boast of what mining has contributed to their provinces.

"In Enga, mining has given them the IPI group, a company that is worth more than a billion kina. They have a Children's Future Fund and they have infrastructure devel-opment as a result of the mining operations," he said. "So, I turn to my friend, Governor of New IreIand, and he tells me that he started a pension scheme, that because of the mine, the Lihirians own the Anitua group worth over a billion. They aiso have MRL Capital, again worh over a billion kina.... "And then there is Western Province with the Ok Tedi Mine. They have an environmental disaster happening, but at least they have PNGSDP worth neariy US\$2 billion. They also have part ownership of the Ok Tedi Mine. In addition, they are fighting over K500 million in ANZ. "What I wouldn't give for an opportunity to fight over K500 million.

"And the conversation turns to me...How many billions did you get from the mining operations in Madang, Governor? What can I say???... "I have RDF worth three bags of kaukau which I can't sell. And I have an environmental disaster waiting to happen that could devastate our tuna industry worth billions, kill my people, damage the Ramu valley, destroy my Madang coastal development program, and destroy our economy for many decades to come, affecting not just my province but the Momase region and Bismarck Sea as well," Mr Yama said. "And yes.... we have K27 billion worth of export from the mining operations, but alas, we are getting nothing from it since it doesn't belong to us. That's what I have from the mining operation in my province. Last year, an MOU was signed with MCC on the continuation and expansion of the Ramu nico operations without consulting with my government. "I consider it an insult as my people in my province are the ones who will pay for any mining disaster or damages caused to the environment. It is our home and our lives will be affected, so we must be adequately compensated and consulted and not be ignored." Mr Yama also said CEPA failed to protect the environment, allowing the operators to dump toxic waste

directly into the environment. "Prime Minister, for the sake of my people and the future generations of Madang, we will have no option but to close the mine."

Verhandlungen zum Weltozeanabkommen Rohstoffrausch in der Tiefsee

Von Stefan Schultz, SPIEGEL ONLINE, 31. August 2019

Tief im Meer liegen gewaltige Rohstoffschätze. Wer sie hebt, kann Milliarden verdienen und politisch an Einfluss gewinnen. Doch die Folgen für die Umwelt könnten verheerend sein.

In lichtlosen Welten, Tausende Meter unter dem Meeresspiegel, liegen gewaltige Schätze: Platin, Gold und Silber, Kobalt und Mangan, Lithium, seltene Erden und vieles mehr. Regierungen und Konzerne bereiten sich darauf vor, sie bald zu heben. Umweltschützer kämpfen mit aller Kraft dagegen an. Denn dort unten in der dunklen Stille leben auch faszinierende, oft unerforschte Kreaturen: rosa schimmernde Kalmare zum Beispiel, gläserne Garnelen mit knallroten Organen oder bis zu 1000 Jahre alte Korallen. Im Hauptquartier der Uno in New York sind an diesem Freitag Verhandlungen zu Ende gegangen, um die Interessen von Umwelt und Wirtschaft auszutarieren. Es geht um einen Weltozeanvertrag, um ein globales Abkommen für die Meere jenseits der 200-Meilen-Zone. Um jenen Bereich der Welt also, der niemandem gehört, weil er in keinem staatlichen Hoheitsgebiet liegt. Dieser Bereich macht 43 Prozent der Erdoberfläche aus. Er ist weitgehend unreguliert, juristischer Wilder Westen.

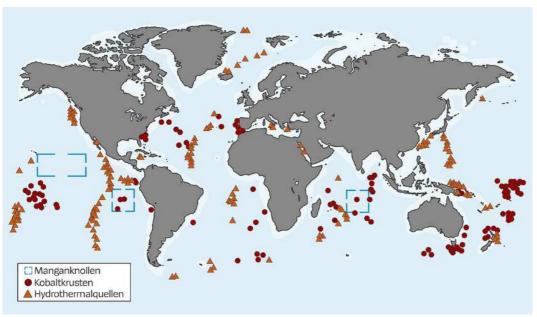
Die Uno will das ändern. Sie will einen gesetzlichen Rahmen schaffen, der die Zerstörung einzigartiger Ökosysteme verhindert und zugleich sicherstellt, dass alle Staaten gleichermaßen von den Reichtümern der Hoch- und Tiefsee profitieren. Im Frühjahr 2020 soll das Weltozeanabkommen fertig sein. Rechtskräftig dürfte es nach Einschätzung von Teilnehmern Mitte der Zwanzigerjahre werden - wenn es genug Staaten ratifiziert haben. Bis dahin ist es noch ein weiter Weg. "Gut möglich, dass wir bis kommendes Frühjahr nicht durchkommen", sagt Matthew Gianni, Mitgründer der Tiefseeschutzkoalition, der das Weltozeanabkommen in den vergangenen 13 Jahren mit vorbereitet hat und nun mit am Verhandlungstisch sitzt. Je länger die Gespräche sich hinziehen, desto größer ist die Gefahr, dass Firmen wie Deep Green, UK Seabed Ressources oder G-Tec Sea Mineral Ressources und Regierungen wie Deutschland, Japan oder China in der Tiefsee Tatsachen schaffen. Die Vorbereitungen für erste Schürfmissionen sind schon weit gediehen - viel weiter als die Forschung zum Umwelt- und Artenschutz.

Die Schatzkammern des Ozeans

Es gibt weltweit nur wenige Forscher, die sich mit Rohstoffvorkommen auf dem Meeresgrund so gut auskennen wie James Hein. Der Geologe vom United States Geological Survey, einer dem US-Innenministerium unterstellten Behörde, schätzt, dass es in der Tiefsee viele Milliarden Tonnen metallhaltiger Mineralien gibt. Aus diesen lassen sich zahlreiche gefragte Rohstoffe herauslösen, unter anderem Blei, Eisen, Germanium, Gold, Indium, Kobalt, Kupfer, Lithium, Mangan, Molybdän, Neodym, Nickel, Platin, Selen, Silber, Tellur und Zink. Die Metalle kommen am Meeresboden in drei Formen vor:

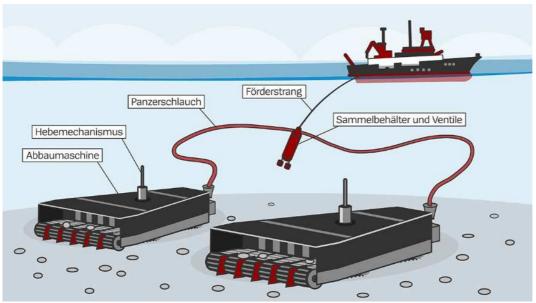
- **Manganknollen**: kartoffel- bis salatkopfgroße Mineralanreicherungen, die sich oft in Tiefseeebenen unterhalb von 3500 Metern finden.
- **Kobaltkrusten**: harte mineralische Überzüge, die über Zeiträume von Hunderttausenden Jahren an den Flanken von Unterwasservulkanen entstanden sind. Man findet sie oft in Tiefen von 1000 bis 3000 Metern.

 Massivsulfide: massive Ablagerungen, die sich an heißen mineralienreichen Tiefseequellen gebildet haben, meist an den Grenzen von Kontinentalplatten und im Umfeld unterseeischer Vulkane.



Rohstoffvorkommen der Weltmeere Arne Kulf

Die Rohstofflager in der Tiefsee sind teils seit den Siebzigerjahren bekannt, ebenso lange existieren Prototypen, um sie zu bergen. Die Fördertechnik von Manganknollen ist laut einer <u>Übersicht der maribus gGmbH</u>, einem Ableger des Mare-Verlags, am weitesten entwickelt.



So könnte die Förderung von Manganknollen funktionieren Arne Kulf

Konzerne könnten demnach 250 Tonnen schwere Erntemaschinen im Ozean versenken und mit ihnen Manganknollen vom Meeresgrund klauben, als wären es Kartoffeln. Die Knollen sollen danach per Panzerschlauch an die Meeresoberfläche und per Frachtschiff an Land gelangen - wo man sie schließlich metallurgisch weiterverarbeitet. Das Metallschürfen in der Tiefsee ist technologisch anspruchsvoll. Erntemaschinen müssen nicht nur sehr hohem Wasserdruck standhalten, sie müssen auch lange zuverlässig arbeiten, weil es extrem aufwendig wäre, sie für Reparaturen zurück an die

Oberfläche zu holen. Die nötigen metallurgischen Verfahren werden zudem teils gerade erst entwickelt.

In den vergangenen Jahren aber hat die Fördertechnik große Fortschritte gemacht. Denn die Nachfrage nach bestimmten Erzen und Metallpartikeln nimmt zu. Firmen benötigen sie zum Bau von Smartphones, modernen Fernsehern oder LEDs - aber auch für Windräder, Solaranlagen und die Akkus von Elektroautos. Im Tiefseebergbau steckt also ein Widerspruch: Die Rohstoffe vom Meeresgrund können einerseits dazu beitragen, die globale Wirtschaft CO2-ärmer zu machen; andererseits kann ihre Förderung Millionen Jahre alte Ökosysteme zerstören. Der Konflikt ist umso größer, da manche für die Energiewende relevanten Rohstoffe in deutlich größeren Mengen im Meer vorkommen als an Land.

Machtfaktor Tiefsee

Für Staaten sind die Rohstoffe in der Tiefsee auch geostrategisch interessant. Denn viele der Ressourcen, die industriell immer wichtiger werden, können auf dem Festland nur in wenigen Ländern gefördert werden. Diese werden obendrein teils von Autokraten regiert.

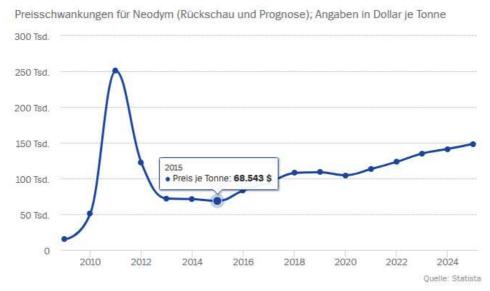
Tiefseebergbau bedroht Rohstoffmonopole

Element	Verwendung	Größter Produzent	Anteil am Weltmarkt	Vorkommen an Land*	Vorkommen im Meer*
Arsen	Halbleiter, Solarzellen	China	47%	1,6	4,3
Kobalt	verschleiß- und wärmefeste Stähle	Kongo	40%	13	94
Lithium	Akkus, Technik für Luft- und Raumfahrt	Chile	41%	14	2,8
Mangan	rostfreie Stähle, LEDs	China	15%	5200	7706
Tellur	Halbleiter, Solarmodule	Chile	?	0,05	0,53
Yttrium	LEDs, Brennstoffzelle	China	97%	0,5	1,7

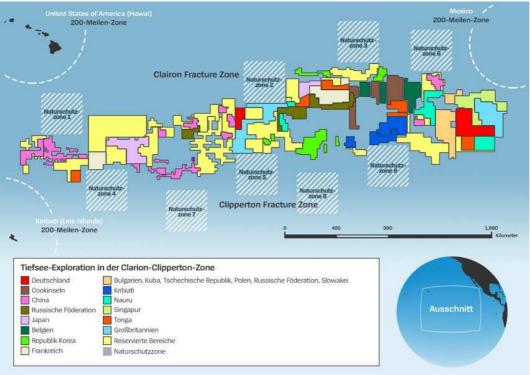
^{*}Schätzung in Millionen Tonnen (wirtschaftlich abbaubare sowie noch nicht wirtschaftlich abbaubare Ressourcen); Quellen: James Hein, Maribus, International Seabed Authority

Wie unangenehm ein solches Abhängigkeitsverhältnis ist, zeigte sich zuletzt 2011, als es zu Lieferengpässen bei den sogenannten seltenen Erden kam. Diese wurden seinerzeit zu 97 Prozent in China gefördert. Als die Produktion in der Volksrepublik stockte, schnellten die Preise in die Höhe. Das Seltenerdmetall Neodym etwa kostete plötzlich fünfmal mehr. Wäre Neodym auf Dauer derart teuer, hätten gleich mehrere Industrien ein Problem. Denn das Element wird nicht nur in manchen Windanlagen verwendet, sondern auch zum Antrieb von Elektro- und Hybridfahrzeugen. Es findet sich zudem in Kernspintomografen, Festplatten, Lautsprechern und Kopfhörern.

Furcht vor Engpässen



Im Jahr 2011 steigerten die Chinesen ihre Seltene-Erden-Produktion relativ schnell, und die Preise fielen zurück auf Normalniveau. Der Rest der Welt aber ist seitdem gewarnt: Ein Monopol oder Oligopol auf relevante Rohstoffe verleiht einzelnen Staaten enorme geopolitische Macht. Und diese wächst stetig. Die Preise für manche Rohstoffe dürften nach Einschätzung von Analysten in den kommenden Jahren deutlich steigen, weil sie für die Märkte der Zukunft immer wichtiger werden. Der Tiefseebergbau könnte Preisspitzen abfedern - und Rohstoffmonopole aufbrechen. Entsprechend groß ist das Interesse an der neuen Technik. Besonders führende Industrienationen stecken, von der Öffentlichkeit weitgehend unbemerkt, bereits jetzt ihre Claims in den Weltmeeren ab.



Übersicht: Wer wo im Pazifik fördern will Arne Kulf

Wettlauf im Pazifik

Wie ernst es manche Konzerne und Staaten mit dem Tiefseebergbau meinen, zeigt sich in der sogenannten Clarion-Clipperton-Zone, einem Tiefseeareal von der Größe Europas zwischen Hawaii und Mexiko, in dem sich ausgedehnte Manganknollenfelder mit einer geschätzten Masse von 21 Milli-

arden Tonnen befinden. In diesem Gebiet hat die <u>Internationale Meeresbodenbehörde</u> (ISA) bislang mit Abstand die meisten Lizenzen für die Erforschung der Böden vergeben. Eine Fördererlaubnis hat die Uno-Behörde bislang indes noch niemandem erteilt. Das soll erst nach Juli 2020 passieren - wenn die Regeln für den Abbau der Rohstoffe festgelegt sind. Umweltschützer werfen der Behörde vor, zu stark die Interessen der Industrie zu vertreten. Greenpeace <u>kritisiert</u>, die ISA würde bislang vor allem sicherstellen, dass auch weniger entwickelte Staaten lukrative Fördergebiete abbekommen. Um Umweltstandards dagegen habe sich die ISA erst zehn Jahre nach Vergabe der ersten Forschungslizenzen gekümmert.

Experte Gianni von der Tiefseeschutzkoalition wirft der ISA Intransparenz vor. "Abstimmungen über die Vergabe von Lizenzen sind geheim und werden nicht dokumentiert", moniert er. Die Behörde, in der vor allem Wirtschaftsminister das Sagen haben, habe bisher jeden Antrag auf eine Forschungslizenz genehmigt. "Wir vermuten, dass sie bei den Förderlizenzen genauso verfahren wird." Ab wann gefördert wird, hängt im Prinzip von den Rohstoffpreisen ab. Erst wenn sie stark genug steigen, wird der technisch anspruchsvolle Tiefseebergbau rentabel. Gianni indes glaubt, dass in der Tiefsee bald erste Förderprojekte starten - egal, ob sie schon rentabel sind oder nicht. Denn die von der ISA vergebenen Claims sind zeitlich limitiert. Sobald die Regeln für den Abbau stehen, dürfte es für Staaten und Konzerne schwierig werden, ihre Lizenzen zu verlängern, wenn sie noch nichts fördern. "Regierungen werden unwirtschaftliche Projekte im Zweifel lieber subventionieren, als das Recht auf bereits erforschte Gebiete verfallen zu lassen", sagt Gianni. Falls der Weltozeanvertrag bis dahin noch nicht in Kraft sei, drohe die Natur massiv Schaden zu nehmen.

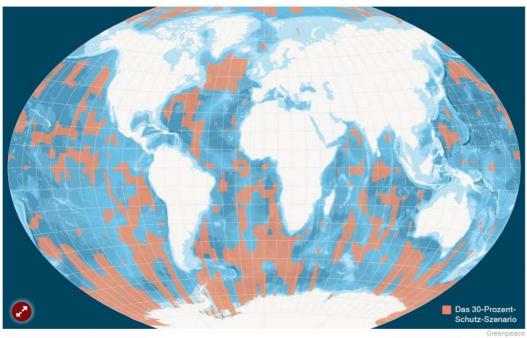
Bedrohte Ökoysteme

In der Tiefsee tummelt sich weit mehr Leben, als Wissenschaftler lange geglaubt haben: Es gibt dort Muscheln, Seesterne, Würmer, Krebse, Seegurken, Schnecken, Kaltwasserkorallen und viele weitere Spezies, die teils einzigartige Wege gefunden haben, in der Dunkelheit, bei hohem Druck und bei Temperaturen von teils mehr als 100 Grad zu überleben. Wo welche Lebensformen verbreitet sind, ist noch weitgehend unerforscht. Die Verteilung scheint aber eher divers zu sein. Bei bisherigen Untersuchungen haben Forscher schon in einzelnen Regionen ganz unterschiedliche Arten gefunden, manche waren bislang völlig unbekannt, andere könnten nur in eng begrenzten Gebieten existieren. Die Habitate dieser Lebensformen würden durch Schürfungen auf dem Meeresgrund auf vielfältige Art gestört:

- Wenn der **Meeresboden aufgewirbelt** wird, kann das laut der Weltnaturschutzorganisation IUCN einige Tiere ersticken.
- Der Lärm, die Vibrationen und das Licht der Erntemaschinen dürften viele Lebewesen vertreiben oder desorientieren.
- Von den Fracht- und Ernteschiffen können giftige Stoffe ins Meereswasser gelangen.
- Es ist zudem fast unerforscht, ob sich die Ökosysteme am Meeresgrund je von der Belastung der Schürfungen erholen.
- Es besteht also die Gefahr, dass **Arten ausgelöscht** werden, wenn Schürfgebiete vorab nicht gründlich genug überprüft wurden. Bei bisherigen Testläufen wurde der **Artenbestand** teils unwiederbringlich **dezimiert**.

Manche der Umweltprobleme lassen sich lösen. Man könnte zum Beispiel die Erntemaschinen so verkleiden, dass sie weniger Sedimente aufwirbeln. Der Abbau der Ressourcen allerdings würde dadurch teurer. Die Frage wird sein, wie gewissenhaft letztlich auf Umwelt- und Artenschutz geachtet wird, wenn der Bedarf nach günstigen Rohstoffen aus der Tiefsee steigt. Laut Craig Smith, einem Ozeanographen an der Universität Hawaii, braucht die Forschung noch Jahrzehnte, bis sie die ökologischen Folgen des Tiefseebergbaus abschätzen kann. Doch so lange werden Konzerne und Staatslenker nicht warten. Umweltschützer hoffen daher auf einen schnellen Durchbruch bei den Verhandlungen in New York.

Das Weltozeanabkommen



30 Prozent Schutz-Szenario-Karte

Das Abkommen, das die Uno-Mitgliedstaaten verhandeln, soll nach Willen der Umweltschützer vor allem zwei Punkte enthalten:

- **30 Prozent** der Hoch- und Tiefsee sollen komplett **unter Naturschutz** gestellt werden unantastbar für Fischer, Genforscher, Unterwasserkabelverleger, Rohstoffschürfer und sonstige Störenfriede. Besonders schützenswerte Biotope haben Umweltschützer bereits ausgemacht und in eine Weltkarte eingezeichnet.
- In allen übrigen Gebieten solle stets die **kumulierte Umweltbelastung** berücksichtigt werden. Wenn an einem Ort sowohl geschürft als auch ein Unterseekabel verlegt werden soll, dann müsse geprüft werden, ob diese Doppelbelastung für das Ökosystem verkraftbar sei. Falls nicht, müsse abgewogen werden, welches der Vorhaben gestrichen werde.

Ob sich solche Forderungen durchsetzen lassen, ist noch nicht klar. Zurzeit jedenfalls gestalten sich die Verhandlungen schwierig. In der gerade zu Ende gegangenen dritten Verhandlungsrunde hakte es laut Teilnehmern gleich an mehreren entscheidenden Stellen. Die ISA versuchte demnach, den Einfluss des Abkommens auf den Bereich Tiefseeschürfung gering zu halten. Sie wolle die Regeln möglichst weiter selbst bestimmen, hieß es. Die Umweltschützer hatten zudem eine unabhängige Autorität gefordert, die künftig die kumulierten Risiken für das Ökosystem ermittelt. Doch dieser Vorschlag hat nicht viele Befürworter. Womöglich werden letztlich die Staaten, die Tiefseebergbau betreiben wollen, mögliche Umweltschäden selbst abschätzen. Interessenskonflikte wären dann kaum zu vermeiden. Der Streit um den Ozeanvertrag ist hochproblematisch. Denn ein umweltverträglicher Tiefseebergbau bietet auch Chancen, die Welt grüner und gerechter zu machen:

- Die Rohstoffe aus dem Meer könnten helfen, die globale Energiewende voranzubringen.
- Sie könnten die Zerstörung ganzer Landstriche und die Umsiedlung ganzer Dörfer verhindern zum Beispiel beim Kobaltabbau im Kongo.
- Rohstoffgeschäfte mit problematischen Regimen könnten teils überflüssig werden.
- Nach Willen der Uno sollen zudem auch ärmere Nationen vom Reichtum der Meere profitieren.

Der ideale Weltozeanvertrag würde all diese Aspekte berücksichtigen. Er würde helfen, die Potenziale der Technik zu erschließen - und gleichzeitig verhindern, dass die Menschheit auch noch den letzten weitgehend unberührten Lebensraum des Planeten irreparabel beschädigt. Ob das gelingt, ist fraglich. Experte Gianni schlägt vor, den Tiefseebergbau vorerst nicht zu genehmigen - zumindest so lange, bis es klare Regeln gibt, was auf dem Meeresgrund auf gar keinen Fall passieren darf. *Grafiken: Arne Kulf* **URL:**

• https://www.spiegel.de/wirtschaft/unternehmen/vereinte-nationen-verhandeln-ueber-weltozeanabkommen-zum-schutz-der-meere-a-1283764.html

AG Tasked To Look Into Use Of Ok Tedi Funds

Gorethy Kenneth, Post Courier, August 30, 2019



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

Prime Minister James Marape has instructed the deputy Prime Minister and Attorney General Davies Steven to seek a restraining order to protect more than K500 million of OK Tedi CMCA and non CMCA funds from being abused. North Fly MP James Donald took the PM to task to explain why there were a certain group of people now drawing down K58 million from the CMCA funds parked at a commercial bank in Port Moresby. An irate PM Marape demanded the inquiry report done by former prime minister Peter O'Neill to be released. "It saddens me that we continue to have people with interest outside of the main stream, outside of everyone, to use institutions of our democracy to access funds running in and out of Vulupindi Haus, running in and out of Court Houses and access funds under the auspices or pretext of being better for our people. Western Province like many other provinces with entitlements from resources continues to remain backward in so far as development indexes and indicators are concerned," Mr Marape said.

"Let me call on the Attorney General and our Deputy Prime Minister to firstly furnish to us the enquiry that was made on the use of CMCA and non CMCA earlier, this Parliament deserves to have the benefit of that report. "Let me advise the leaders of Western Province, that I also ask the State Solicitor to intervene and that this matter is put on hold until we ascertain exactly what is being pursued or what is being accessed and whether they are in compliance with the Trust Instruments we have and whether they have legal entitlements to those funds," he said. "As we speak, it is immoral to have Western Province still backward over K500million in funds that are entitled for develop-

ment sitting in banks and government institutions, legal firms, many of the so called educated people, we are fighting over money that is meant to fix Western Province.

"They have their own funds sitting there, yet educated Western Provinces with a combination of other Papua New Guineans over time have been feasting on this funds outside of what these funds are meant for. "It is about time we put to shame people who continue to access these funds and I propose AG to establish a pathway, with legitimate bodies on the ground like government, districts and CMCA agencies on the ground so that Daru town does not have black buckets anymore. "The National Government will add in their ex-gratia component and their own funds and we will work in partnership to ensure that this province is moving on the right spot. "Let's find a way to help the Western Province leaders and the people," he said.

Ensure politically connected do not out laws

Mack Lone Bolan, Post Courier, 28 August 2019

Taking back PNG also means ensuring that the politically connected do not out our laws – the case of MRDC. It is quite alarming to witness that the Office of the Prime Minister and other responsible agencies of government have not found it necessary to inquire into what is unfolding at the MRDC and inform the public to reduce their apprehensions about the government's resolve on curbing corruption. We have the chairman of the trustee company, the Petroleum Resources Gobe Ltd (PRG) Philip Kende and the managing director of the manager (MRDC) Mr Augustine Mano engaged in open war of words over a K30.3m which disappeared just weeks before the recent vote of no confidence and there is plenty of speculation surrounding it.

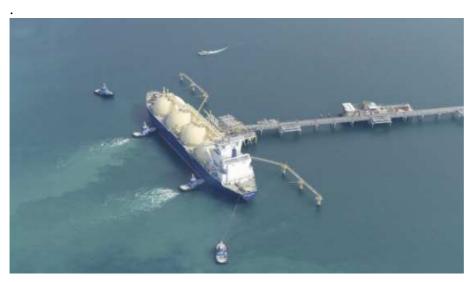
The MRDC is just the manager of the trustee and therefore does not have the authority to be involved in anything relating to policies over the GLC process and the amendments to the provisions of the Oil and Gas Act on the management of the trust funds. The Chief Secretary to Government, Isaac Lupari, is the chairman of the board of the manager – MRDC. He would be in a unique position to assist the government and inform the project area landowners what the truth is about the missing millions of kina not only the K30.3m but also the K200m reported in the newspapers in December last year. In the interest of fairness, both men (Kende and Mano) ought to be sidelined and allow the National Fraud and Anti-Corruption Squad led by Chief Superintendent Mathew Damaru with his Officers to have free access to the records and interview staff at the MRDC to settle these things quickly.

The Minister for Petroleum would need to ensure that the Department of Petroleum is still responsible for policy issues in the sector and not stand by and have this function or parts of it performed by someone else such as overseeing the GLC process. We would really like to believe that the days of "if you are politically connected, you can do anything" are gone but cannot begin to talk about "Taking Back PNG" when we still have an environment where the politically connected feel they can still continue to do anything. Tok pisin bilong Waigani must stop. Commission and inducements for processing papers, clearing things, responding to correspondences and securing approvals etc. would have to be things of the past. Only when we have overcome all of the above and more can we begin to feel that we are Taking Back PNG.

PNG LNG production, loading curtailed by damage at facility: Oil Search Srijan Kanoi, S&P Global Platts, 28 August 2019

The mooring system at the Oil Search operated Papua New Guinea production facility was reported to be damaged, causing loading and production disruptions, the company said in a statement to the

Australian Securities Exchange Wednesday. "As a precautionary measure, Oil Search temporarily suspended scheduled liquids loading last week. In addition, to extend the liquids storage available in the liquids export system, the company curtailed production from the Oil Search-operated oil fields and the PNG LNG operator partially reduced PNG LNG production," Oil Search said in the statement. The company added that due to adverse weather and sea conditions in the Gulf of Papua, the inspection of the mooring system could not be carried out yet. Oil Search said that they developed a temporary solution for safe berthing and loading of vessels at the facility, which enabled liquids loading to resume at a reduced rate from August 25



LNG Vessel Kumul is currently anchored at Port Moresby since August 26, waiting to load a cargo from the PNG LNG facility, cFlow, Platts trade flow software showed. No ships left the port between August 18 to August 25, the data showed. The last LNG vessel to load a cargo and sail from Port Moresby was Maran Gas Leto, which entered the port on August 23 and sailed on August 25, according to Platts cFlow. Oil search said that they were working closely with the PNG plant operators to ramp up LNG production back to normal. However, they added that it was currently unclear whether it would be necessary to adjust their 2019 production estimate, due to the damaged mooring system and the resultant loading issues. PNG's LNG facility has an annual nameplate capacity of 6.6 million mt of LNG, according S&P Global Platts Analytics.