Complaint Against Newcrest Mining Limited and Harmony Gold (Australia) Pty Ltd

Submitted to the Australian National Contact Point for Responsible Business Conduct by the Evangelical Lutheran Church of Papua New Guinea, Centre for Environmental Law and Community Rights Inc and Jubilee Australia Research Centre

9 November 2022

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"The legacy that we want to leave for our children, and for our grandchildren, is a simple one. We want them to be able to live in an environment that is clean, healthy and safe. We do not want them to suffer the consequences of choices we make today: to be left with an ocean full of toxic waste, sick from being exposed to heavy metals and unable to support their families. No! The ocean is our life, it is not a dumping ground, and neither are we."

- Reverend Yasam Aiwara, Head of Jabem District, Evangelical Lutheran Church of Papua New Guinea

Introduction

This document sets out a complaint to the Australian National Contact Point for Responsible Business Conduct against Newcrest Mining Limited and Harmony Gold (Australia) ('the Enterprises') in relation to the Wafi-Golpu Project in Papua New Guinea, with respect to breaches of the OECD Guidelines for Multinational Enterprises ('the OECD Guidelines').

Newcrest Mining Limited and Harmony Gold (Australia) Pty Ltd are ultimately joint partners in the Wafi-Golpu Joint Venture in Papua New Guinea, which is being undertaken by their wholly owned subsidiaries which operate in Papua New Guinea, and appear to be managed from Australia.

The Wafi-Golpu Joint Venture is proposing to construct and operate an underground copper-gold mine and associated ore processing, concentrate transport and handling (including via pipelines), power generation, water and tailings management (principally deep sea tailings placement) and related support facilities and services (hereafter referred to in the document as the 'Wafi-Golpu Project' or 'the Project').

About the Notifiers and the Complainants

This complaint is submitted by the Evangelical Lutheran Church of Papua New Guinea, Jubilee Australia Research Centre and the Centre for Environmental Law and Community Rights Inc. (**the Notifiers**) on behalf of 2,596 people, including people from the villages of Wagang and Yanga, people from villages located along the Huon Gulf coastline, citizens living in the city of Lae, and people living in villages along the pipeline corridor in the Morobe Province, Papua New Guinea (**the Complainants**).

The Notifiers and Complainants are opposed to the Enterprises' plans for the dumping of toxic mining waste via deep sea tailings placement (**DSTP**) into the ocean of the Huon Gulf at Wagang. Moreover, information has emerged that an independent review of the DSTP proposal by an eminent Marine scientist, Professor Ralph Mana, during the environmental assessment process has found that the location is not suitable for DSTP and the dumping of the tailings will cause serious and permanent damage to the local ecosystem. Communities of the Huon Gulf rely on the environment for their subsistence and culture and the DSTP poses significant harm to their health and the health of their precious marine resource, if it is to proceed.

Further, the Complainants are concerned that they and other communities along the Huon Gulf have not been adequately consulted or informed regarding the potential risks of the project. This includes the outcome of Professor Mana's independent review and the implications of this review on the DSTP proposed by the Enterprises. Moreover, they have not been provided with an opportunity to give or withhold their free, prior and informed consent to the DSTP.

The Notifiers are further concerned about:

- potential short and long term environmental impacts on the ocean and marine ecosystems, including coral, seagrass, mangroves, which support healthy marine life:
- potential impacts on fish stocks, which could impact the thousands of families who depend on the Huon Gulf for access to fish;
- potential impacts on communities' livelihoods, including ability to earn an income to support their families and also to support the work of the church;
- the potential toxic effects on the environment of exposure to heavy metals, including bioaccumulation, biomagnification;
- the potential toxic effects upon human health through exposure to heavy metals, including through consumed food;
- the potential for pipelines to spill or break, causing extensive damage to watercourses, agricultural land, villages, the city of Lae, or forests, especially given the seismic activity of the area;
- the legacy left for future generations;
- the impact of climate change including whether in the future, storm surges, flooding, king tides or tsunamis could sweep waste inland or into the Busu River or its associated floodplain, which is located near Wagang and Yanga, or whether Project infrastructure could be damaged or destroyed, leading to extensive leaks and spills and subsequent extensive environmental damage.

The affected communities

The area in which tailings will be dumped is essential to the lives of an estimated 400,000 people, who use the sea as part of their everyday lives, including the exercise of traditional cultural practices.

Community members are concerned about the impacts of DSTP on marine ecosystems, on their livelihoods, on their health, and the legacy that will be left for future generations. The communities have grave concerns, which has been

substantiated by Professor Mana's review, that the DSTP proposal by the Enterprises will, in effect, transform their precious marine environment as a dumping ground for the mine's toxic tailings.

We estimate that approximately 400,000 people living along the Huon Gulf will be affected if the Enterprises are allowed to dump their waste into the sea, which will pollute this precious resource for generations to come.

Summary of breaches of OECD Guidelines on Multinational Enterprises

The Notifiers assert that the Enterprises, through their commitment to DSTP as the tailings management method for the Wafi-Golpu mine, have breached the OECD Guidelines on Multinational Enterprises:

- Chapter II General Policies, Paragraph 2, 10, 11;
- Chapter III Disclosure, Paragraph 2(f);
- Chapter IV Human rights, Paragraphs 1, 2, 5;
- Chapter VI Environment, Paragraphs 1(b), 1(c), 2(a), 2(b), 3, 4.

We submit that, in summary, this is due to the following failures by the Enterprises:

- 1. Failure to respect the right to life, the right to a healthy environment, the right to culture, the principle of equality and non-discrimination, the rights of the child, and the right to self-determination;
- 2. Failure to avoid causing serious and irreversible environmental damage in the Huon Gulf:
- 3. Extreme failure to take due account of the need to protect the environment, public health and safety, and to consider relevant international agreements and standards;
- 4. Failure to disclose key information regarding foreseeable risks and failure to engage in adequate and timely communication and consultation with communities:
- 5. Failure to engage in a precautionary approach;
- 6. Failure to adequately address environmental and likely human rights impacts over the full life cycle of the Project with a view to avoiding or mitigating them;
- 7. Failure to establish and maintain a system of environmental management;
- 8. Failure to respect internationally recognised human rights of those affected;
- 9. Failure to avoid contributing to adverse human rights impacts;
- 10. Failure to obtain the free, prior and informed consent of affected peoples and communities;
- 11. Failure to respect the right to free, prior and informed consent;
- 12. Failure to conduct appropriate human rights due diligence.

About the Notifiers

Evangelical Lutheran Church of Papua New Guinea

The Evangelical Lutheran Church of Papua New Guinea (ELC-PNG) has a membership of over 1.2 million all throughout Papua New Guinea. This is approximately 16 per cent of the total 7.5 million population of the country.¹

Jabem District is the Church's administrative area covering the potentially affected area within Morobe province.

There is an organised church located in almost every village along the Huon Gulf coastline, meaning that the Church is strongly connected and embedded within communities. All grievances are formally expressed through the administrative layers of the Church and are raised at Church conferences. As a result, the concerns of communities and the Church regarding DSTP have reached the national decision bodies of the Evangelical Lutheran Church of PNG. DSTP has been addressed in at least 7 Church Conferences,² three of which have been at a national level, and Resolutions have been issued at a national level within the Church.

Church's history of advocacy regarding DSTP

In around 2000, ELC PNG was the first organisation in PNG to commission a study into the DSTP issue at Basamuk, which was one of the first documents regarding DSTP in PNG. The church commissioned a team to conduct a scientific fact finding study into DSTP, prior to the issue of the environmental permit or mining licence to RamuNico. The permit and licence for the Ramu nickel mine was subsequently approved, and much of the Church's concerns were borne out in reality.

Since then, there have been numerous spills along the Basamuk pipeline corridors. In August 2019, 200,000 litres of toxic slurry was spilled at the RamuNico plant, with upto 80,000 litres ending up in the ocean, turning the water bright red and staining the shore.³ Despite being three years ago, the Conservation and Environmental Protection Authority has not yet completed their response to that spill; no penalties have been applied.

The example of Basamuk forms a precedent on which the Church stands. The Church does not want a repeat of Basamuk in the Huon Gulf.

Centre for Environmental Law and Community Rights Inc.

The Centre for Environmental Law and Community Rights Inc. (CELCOR)⁴ is a not for profit, non-government environmental organisation that works to protect the environmental and customary rights of the people of Papua New Guinea through law and advocacy, to ensure sustainable resource management for the benefit of the present and future generations.

Jubilee Australia Research Centre

Jubilee Australia Research Centre⁵ (ABN: 78 669 804 328) is an Australian based non-profit research centre that was founded in 2009. The organisation's primary functions include engaging in research and advocacy in order to deliver economic justice in the Asia-Pacific region, and accountability of Australian corporations and government agencies operating within this region.

Jubilee Australia Research Centre is a charity registered with the Australian Charities and Not-for-profits Commission.

ELC-PNG, CELCOR and Jubilee Australia Research Centre jointly manage the 'Say No to Wafi-Golpu DSTP' campaign, which aims to protect the coastal communities of the Huon Gulf from the impacts of Wafi-Golpu DSTP.⁶

Notifiers' relationship to the Complainants

The Notifiers have consulted the Complainants and obtained their consent to bring this complaint on their behalf. A file including the names and original signatures of each of the Complainants is Annexure A. We seek that the names of signatories and signatures provided remain confidential and not be provided to the Enterprises.

How Complainants were identified

Church representatives took a long time to canvas the area of the Huon Gulf represented within this complaint, and meet with villagers. It is also important to note that while 2,596 individuals have agreed to sign on to bring the complaint, the southern coastline of the Huon Gulf has not yet been canvassed, meaning that there would be a much higher number of people represented in this complaint if time and resources permitted.

Representatives of the church visited villages in tandem with the Church visitation calendar. Complainants were given an opportunity to sign on to the complaint during Conferences / meetings of the ELCPNG Circuits, Districts and the National Synod since 2021. These events occurred along the Huon Gulf coastline, inland and also in other provinces. At other times the Church's team of volunteers visited the villages upon invitations from the village/church elders per the respective villages, usually after a Sunday Worship service at the village.

People were informed together during at these meetings where a member of the Church team spoke and raised awareness on DSTP, and then directed their attention towards understanding the OECD NCP process. They then invited them to sign on to be part of the group of Complainants bringing the complaint.

Other times, the Church volunteers set up information booth with campaign banners at these community events. The booth had an awareness exhibition of the campaign against DSTP, and also someone was tasked to explain the NCP complaint process and invited passers-by through the booth to sign giving their support. In other cases, community leaders discussed the process with communities and invited them to sign on.

Even though the Church team sought to explain the OECD NCP complaint verbally, others who wanted to read it themselves, were able to read through the detailed explanation on the form. At the location where people signed, a printed copy was usually posted on the wall or table so anyone willing to read through themselves can read on and then decide whether they sign or not.

'Anything that harms the livelihood of the people of the Church, we as a national Church, say no.'

- Reverend Yasam Aiwara. Head of Jabem District

Identity and location of the Enterprises

The Project is being advanced in Papua New Guinea by the unincorporated Wafi-Golpu Joint Venture. Australian based companies **Newcrest Mining Limited** (ACN 005 683 625), based in Melbourne, and **Harmony Gold (Australia) Pty Ltd** (ACN 091 439 333), based in Brisbane, (**the Enterprises**) each own 50 per cent of the Wafi-Golpu Project through the Wafi-Golpu Joint Venture.⁷

The Participants in the Wafi-Golpu Joint Venture are Newcrest PNG2 Limited and Wafi Mining Limited, both established under the laws of Papua New Guinea. The ultimate parent company of Newcrest PNG2 Limited is Newcrest Mining Limited.⁸ Wafi Mining Limited is fully owned by Australian subsidiaries of South African company Harmony Gold Mining Company Limited.⁹

The Project is being managed in Papua New Guinea and Australia.

Please see **Annexure B** for a more detailed description of the Enterprises.

Competence of the Australian NCP to hear the complaint

The Australian National Contact Point (AusNCP) Complaint Procedures 2019 (the "Complaint Procedures") state in Section 3.1 that 'Complaints can be made to the AusNCP about an Australian multinational enterprise operating overseas, even in a country that is not an adherent to the OECD Guidelines and that the AusNCP "will seek to take a broad view of the definition of an Australian multinational enterprise for the purposes of receiving complaints".

One 50% partner in the Wafi-Golpu Joint Venture is Newcrest PNG2 Limited, a company wholly owned by Australian registered company Newcrest International Pty Ltd, and ultimately owned by parent company Newcrest Mining Limited.

Newcrest Mining Limited is an Australian multinational enterprise operating overseas in Papua New Guinea, a country that is not an adherent to the OECD Guidelines.

The other 50% partner in the Joint Venture is Wafi Mining Ltd, a company wholly owned by Aurora Gold (Wafi) Pty Ltd, an Australian subsidiary of Harmony Gold Mining Company Limited, a South African mining company. South Africa is not an adherent to the OECD and does not have a National Contact Point. Aurora Gold (Wafi) Pty Ltd appears to bear the same registered address in Milton, Queensland, as Harmony Gold (Australia) Pty Ltd in ASIC's records.

However, the Wafi-Golpu Joint Venture also appears to be managed from Australia, as its General Manager is based in Brisbane.

We submit that the situation therefore falls under the competency of the Australian NCP.

Part A: Essential Background

About the project: DSTP, infrastructure and pipelines

The Wafi-Golpu Joint Venture is seeking to run the Wafi-Golpu project (**the Project**), in the Morobe Province of Papua New Guinea, which is Papua New Guinea's most populous province. The mine would be located north of the Owen Stanley Ranges, ¹⁰ approximately 65km south-west from the city of Lae, Papua New Guinea's second most populous city.

Wafi-Golpu would be one of the largest copper and gold mines in the world and one of the largest ever in Papua New Guinea. This means that it will also generate huge quantities of waste.

The Enterprises' proposed waste disposal method is Deep Sea Tailings Placement (**DSTP**), which involves dumping mining waste (tailings) into the ocean via a pipeline located near the coastal village of Wagang.¹¹ The Enterprises assert that 'most'¹² of the tailings will drift down into an underwater canyon called the Markham Canyon.

The mine area will be linked to the coast via an infrastructure corridor that will incorporate three pipelines: a concentrate pipeline, terrestrial tailings pipeline and fuel pipeline. The pipelines will traverse approximately 130km from the mine site in the mountains of Morobe Province, through agricultural gardens, partially cleared forest and a floodplain, and crossing watercourses, through the city of Lae. The concentrate and fuel pipeline will terminate at, or near, the Port of Lae. The infrastructure corridor continues through Lae to the Outfall Area, located between Wagang and the mouth of the Busu River.

Two key sites will be used to dump waste into the ocean: a pipeline discharging filtrate after processing the concentrate at or near the Port of Lae, and the Outfall Area, the most prominent discharge point which will dump all tailings in the sea, near Wagang village (also referred to as the 'Wagang Outfall').

Filtrate discharge near Lae

At the coast, the proposed Port Facilities Area will be located at or in proximity to the Port of Lae,¹⁷ which will include a 'concentrate filtration plant and materials handling, storage, ship loading facilities and filtrate discharge pipeline'.¹⁸

The EIS states:

'A wastewater treatment plant will <u>treat filtrate from the concentrate slurry</u> and stormwater captured on site. The plant will <u>consist of pH adjustment and solids removal</u>. The filtrate will be <u>continuously discharged to the marine environment in the vicinity of Berth 6, at a rate of around 30 litres per second <u>during operations</u>. The filtrate will be treated <u>where necessary</u> to comply with the PNG Environment (Water Quality Criteria) Regulation 2002 (PNG ER) criteria for the marine environment.'19</u>

Given that the mine life will be 28 years, our rudimentary assessment of the amount of filtrate to be discharged into the marine environment in the vicinity of Berth 6 is calculated at 26 490 200 000L.²⁰ However, the quantity remains unclear.

The content of the filtrate also remains unclear, and what impacts it may have on the environment.

On 31 August 2022, the Notifers wrote to the Wafi-Golpu Joint Venture seeking clarification of the quantity and content of the filtrate, however this question was not answered.

DSTP at the Wagang outfall

Wagang Beach is a popular swimming beach and important place for fishing and collecting seafood and cultural activities.

DSTP discharges tailings slurry from an outfall pipeline terminus located approximately 200m below the ocean surface. The EIS states that on exiting the outfall pipe, the tailings flow down the sloping seafloor as a density current, with the ultimate deposition of the tailings solids on the deep-ocean floor.²¹

The Enterprises anticipate that the tailings will drift down into deeper waters, and accumulate at the base of the slope;²² and that the tailings' footprint will be along the axis of an underwater canyon called the Markham Canyon.²³

Where the Project is up to

An Environmental Impact Statement (**EIS**) was lodged with PNG's Conservation and Environmental Protection Agency (**CEPA**) in June 2018. In September 2020, an Environmental Permit was issued by CEPA for the Wafi-Golpu Project. Despite a planned mine life of 28 years, the Environmental Permit has been granted for 50 years.²⁴ An Independent Review of the EIS was completed, which we understand to be critical of the EIS. However, CEPA has not made this public.

The Project is anticipated to take approximately 5 years to construct, and operations, (including commissioning, ramp-up and production) are, as we said above, estimated to last at least 28 years.²⁵

Court proceedings were previously filed by the former Morobe Provincial Government in opposition to the Project. However, in September 2022, the new Morobe Governor, Luther Wenge announced that the legal proceedings will be withdrawn and he hopes to sign a Special Mining Lease by December 2022.²⁶

The Notifiers are not in opposition to the Wafi-Golpu mine itself, but are strongly opposed to the Enterprises' DSTP model for the Project.

Further detail about the Complainants

This complaint is brought by 2,596 people, including:

- people from the villages of Wagang and Yanga, which are villages essential to the DSTP infrastructure, and who depend upon the environment for their subsistence:
- people from villages across the Huon Gulf coastline, who depend upon the environment for their subsistence;
- citizens of the city of Lae, PNG's second most populous city. The pipeline corridor will run directly through the city, as well as the area near its Port become a dumping site for filtrate; Lae also lies proximate to the ocean of the Huon Gulf; and
- people from villages along the pipeline corridor further inland, who are concerned about impacts on their communities.

The area in which tailings will be dumped is essential to the lives of an estimated 400,000 people, who use the sea as part of their everyday lives. The sea is their supermarket, and is used for cooking, washing, fishing, bathing and medicinal purposes as well as it being a site for the exercise of traditional cultural practices.

In addition, communities of the Huon Gulf gather mud crabs, eels, lobsters and clams for food, and fish is their primary source of protein and a source of livelihood, subsistence and income. Villagers sometimes sell a small portion of their catch in order to generate income. This income is used to purchase basic supplies such as flour and rice, and to support the work of the Church.

Many of the villagers have a cultural connection to the land and waters.

Community members are concerned about the impacts of DSTP on marine ecosystems, on their livelihoods, on their health, and the legacy that will be left for future generations.

We estimate that approximately 400,000 people living along the Huon Gulf will be affected if the companies are allowed to dump their waste into the sea, and thousands more people yet to be born in Morobe province.

About the tailings

Over the course of its 28-year mine life, Wafi-Golpu will generate 360 million tonnes of tailings.²⁷

However, in the future, the amount of tailings could rise to more than 3 times the amount assessed in the EIS. The amount of tailings could feasibly grow to more than 1 billion tonnes of tailings, if the Enterprises exploit the total estimated amount of reserves available at the Wafi-Golpu deposit.²⁸ This is comparable to the amount of tailings dumped by the Ok Tedi mine into the Fly River across its history until the end of this year.

Tailings are waste materials left after the target mineral is extracted from ore. They consist of 'crushed rock; water; trace quantities of metals; and additives used in processing, such as petroleum by-products, sulfuric acid and cyanide.'²⁹

The tailings for Wafi-Golpu will contain a range of heavy metals including arsenic, lead, mercury, chromium, manganese, cadmium, cobalt, copper, manganese, zinc, nickel, silver, calcium, copper, iron, potassium, magnesium, sodium, selenium, vanadium and zinc.³⁰

These heavy metals can have significant impacts on marine life and could bioaccumulate and biomagnify to have impacts on human health.

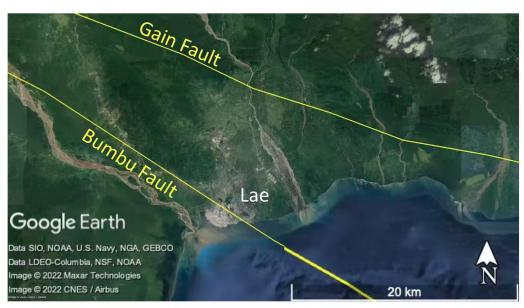
The processing chemicals that are being used may also end up in the ocean – many of which may have adverse impacts on marine and human life. It is unclear what quantities of processing chemicals may be dumped into the ocean over a 28-year period.

Seismic risks

Papua New Guinea is situated 'in one of the most tectonically active areas in the world – one that experiences more than 100 earthquakes of magnitude five or greater each year'.³¹

A national seismic hazard map for PNG has been produced by Geoscience Australia and PNG government's Port Moresby Geophysical Observatory, and forms the 'backbone' for ongoing work into earthquake risk assessment and management in PNG. The latest national seismic hazard map shows a 'particularly pronounced hazard in Lae... which sits adjacent to a major active tectonic plate boundary known as the Ramu-Markham fault system'.

There are two fault lines near Lae – the Bumbu Fault, which runs directly through Lae, and the Gain Fault, which lies within 15km of Lae, and less than 15km north of Wagang village. 'A large earthquake at this distance could cause widespread damage,'32 and could cause terrestrial damage, including to the pipeline corridor or processing facilities located near the coast.



The Gain and Bumbu faults are two parallel segments of the Ramu-Markham fault system that pass close to Lae. Author provided/Google Maps

Image: The Bumbu Fault and the Gain Fault. Source: The Conversation, 4 July 2022.33

Risks to the pipeline corridor

The pipelines for Wafi-Golpu carrying fuel, concentrate, mining waste for processing to the coast are proposed to be approximately 130 kilometres long.

The proposed Infrastructure Corridor will run through Papua New Guinea's most populous province. The pipeline will also run near homes and gardens, including the villages of Ganef, Nasuapum, Munum and Yalu, where, among other impacts, the EIS admits, 'houses and gardens may be lost or damaged, and may need to be reestablished elsewhere as a last resort.'

The pipeline corridor from the mountains to the coast will run directly through the CBD of Lae, the second most populous city in PNG, including running along Mangola Street, and within a few hundred metres of two hospitals.³⁵ This has also been criticized by Professor Mana, who has said that, 'A mining corridor cannot run through a major growing city.'³⁶

Lae is 'a major economic hub for the country. It has the largest port and is the starting point of the transport artery running through mainland PNG.'37

The risk of pipe accidents is not a remote risk. A report by Mining Watch Canada and Earthworks noted that globally, 'at least half of the 12 principal ocean dumping operations currently or recently operating have had pipe accidents. For example, in 2000, Newmont Mining's Batu Hijau copper and gold mine in Indonesia spilled around 5,000 cubic meters of tailings after only 13 months of operation.'38

Risks to the pipeline from seismic activity

On 11 September 2022, an earthquake measuring 7.6 on the Richter scale was among the highest ever recorded in Morobe province. The province is seismically active: in the past 365 days as at 17 October 2022, there have been approximately 72 quakes above a magnitude of 4.0 in or near Morobe Province.³⁹ We are deeply concerned about the potential for further earthquakes - as Morobe Province is on the active Ramu-Markham faultline – and the potential for the pipeline to be ruptured at multiple points.

Damage to the pipeline could cause mining waste to pollute important agricultural land, waterways, villages and the city of Lae and its inhabitants, businesses and industry.

Professor Mana has recently made that risk very clear in a public statement when he said: 'As an expert on DSTP I cannot play dumb...[the p]ipe will break easily when earthquake happens by sediment beds lateral movement. Look at what happened with roads and places. The recent M7.6 earthquake just happened and if we cannot believe in good scientific evidence then we might as well stop teaching science courses in our institutions and return to the jungle.'40

If the 130 kilometre long DSTP pipelines proposed for Wafi-Golpu had been operating on the 11 September 2022 weekend, it is unknown how many landowners would have seen their land and gardens growing their food covered in toxic mining waste, or how many water sources would have been polluted, including streams, rivers and groundwater.

Thus, any rupture to the 130km pipeline to the coast may threaten communities' access to food, and to safe drinking water (especially as the pipeline will be transporting minerals containing arsenic compounds).

Tsunami risk

The placement of tailings at the current location has also been suggested by Professor Ralph Mana to increase the risk of a tsunami. Given the already high seismic activity in the region, this is an alarming claim.

The Enterprises' DSTP model

The Enterprises' plan to dump mining waste into the Huon Gulf depends on the following stated premises:

- the tailings will drift down into deeper waters and accumulate at the base of the slope;⁴¹
- 'most of' the tailings 60 per cent of the tailings will descend into the Markham Canyon;⁴²
- the tailings footprint will be along the axis of the Markham Canyon with no deposition above 200m depth;⁴³
- the sediment will be mixed with the river sediment and represent only a small percentage (<20%) of the total sediment flow in that area;⁴⁴
- there is 'no upwelling' and 'the dense tailings slurry is prevented from rising up into the less dense and warmer layer of the ocean';⁴⁵
- the 'low metal bioavailability is due to the naturally high sulphide concentrations present in the sediments, which transforms metals into insoluble metal compounds. In the tailings, much of the bioavailable metals concentrations are expected to be released in the dilute subsurface plumes.'46
- the processing chemicals to be used are described as relatively harmless: 'frothing the ore using compounds similar to detergents':
- DSTP will not impact the productive surface waters or fisheries.⁴⁷

Criticisms of the Enterprises' DSTP plan by Professor Ralph Mana, in an Independent Expert Review

The Enterprises' DSTP model has been refuted by leading independent scientist, Professor Ralph Mana. We understand that Professor Mana conducted an independent review of the EIS for PNG's environmental authority, Conservation and Environmental Protection Authority (CEPA). We also believe that the Enterprises are aware of this independent review and its findings.

Professor Ralph Mana is an eminent scientist, qualified with a PhD in Zoophysiology, and is an Associate Professor within the Department of Biological Sciences at the

University of Papua New Guinea.⁴⁸ He is listed as an author on at least 30 publications, largely related to marine biology, fish biology, fisheries, biodiversity, conservation biology, distribution, electrophysiology and neurophysiology.

In 2010, he was involved in the international BioPapua expedition, which aimed at exploring the deep waters of eastern Papua New Guinea and its satellite islands, in partnership with the Museum national d'Histoire naturelle, Institut de Recherche pour le Developpement.⁴⁹ He also was involved in the subsequent follow up expedition in 2015, which crucially found that just one week after the Ramu refinery commenced, impacts of its activities could already be observed on the marine environment.⁵⁰ The Ramu Nickel Project is a mine and a refinery and uses DTSP to dump tailings into the sea at Madang in Papua New Guinea.

The Notifiers have obtained information about some of the findings of Professor Mana's review through social and mainstream media comments that have been made by him, altering us to his primary finding in his review that Wagang is not suitable for DSTP and that "it's an ecological disaster waiting to happen under the current plan".⁵¹

These findings are extremely concerning to the Complainants, who fear that they are facing an ecological and heath disaster through the pollution their seas, totems and seafood sources by toxic waste produced by the Enterprises' Mine.

Below are the list of comments made by Professor Mana, or newspaper articles quoting Professor Mana, regarding the Enterprises' DSTP plan:

- ""My stand is clear based on my review of the EIS." 52
- "[A] major gap in the EIS is the Bathymetry (Bathymetry is the study of underwater depth of ocean floors or lake floors) and uneven characteristics of the slope at Wagang where the pipe will be located. The slope is so rough that high density tailings will break into suspension at 300m and continue to do so. Since the Markham canyon is 4-6 km away most tailings will not reach the canyon. One fundamental requirement for DSTP is tailings must reach 1,000m depth quickly. This is not the case at Wagang." 53
- there are two major currents flowing opposite each other at the proposed DSTP site; 'this means that tailings will be transported in both directions Salamaua way as well as Finschhafen way through the Vitiaz Strait';⁵⁴
- "I would confidently say that less than 10 per cent of tailings might find the canyon, if at all, and the rest will spread in all directions to distances as far as 30km." 55
- 80 per cent of sediments from the Markham River were not found in Markham Canyon "and no one knows where it goes". "Therefore, it is not true that tailings will flow into the canyon because when it gets into suspension, it will follow what the river sediments are doing and that is not to flow into the canyon." 56
- "The Minister has ill-informed the parliament and the government. **Take home** message is Wagang is not a good spot for DSTP. Period." ⁵⁷

- "Wagang cannot be a suitable site for DSTP because of genuine bathymetric and oceanographic characteristics that make it dangerous to the marine ecosystem." 58
- "Bay current systems are complex to say the least. Since the pipe outfall is 4-8km away from Markham Canyon at 700m depth, we can assume that due to rough edges of the slope and the truncated distance to the canyon, I would say most of the tailings will get into suspension before it can arrive at the canyon." 59
- "As an expert on DSTP I cannot play dumb... The physical characteristics of the slopes at Wagang is not suitable for the pipe outfall location. Rough rugged slopes will get most tailings into suspension before it can reach the canyon at 5 8 kilometres away. And earthquake happens at Wagang everyday. Pipe will break easily when earthquake happens by sediment beds lateral movement. Look at what happened with roads and places. The recent M7.6 earthquake just happened and if we cannot believe in good scientific evidence then we might as well stop teaching science courses in our institutions and return to the jungle. Not to forget 2000 plus species of organisms that call Huon Gulf home before humans arrived millions of years ago... Make no mistake. I cannot let stupidity and greed take the front seat in this project."60
- "A mining corridor cannot run through a major growing city." 61
- "Earthquakes happen every day at Morobe and build-up of tailings at rugged edges of the slope can cause slumping on a greater magnitude, creating tsunamis that could wash away Voco Point and any low-lying area of Lae. 62
- "WGJV does not have any substantial baseline data of Huon Gulf. Baseline data is a fundamental requirement for DSTP. Organisms will be destroyed by tailings and filtrate waste water. Monitoring will be impossible if you don't have baseline data."63

Profession Mana's concerns can be summarised as:

- less than 10 per cent of tailings will settle in the underwater Markham Canyon;
- tailings will travel 30km in every direction due to currents;
- bathymetry at the site is unsuitable;
- the outfall pipe is located too far away from the Markham Canyon;
- tsunami risk due to deposition of tailings:
- it is inappropriate to run a pipeline corridor through a major city.

An implication of Professor Mana's assessment that 90 per cent of tailings may not reach the Markham Canyon is that potentially 324 million tonnes could end up dispersed in the waters of the Huon Gulf. If the Enterprises choose to utilise all the resources of the Wafi-Golpu deposit, this could eventually lead to 900 million tonnes being dispersed in the water column.

Key Appendices to the Enterprises' EIS depend on the EIS' assumptions about tailings placement to make conclusions regarding tailings ecotoxicology, bioaccumulation and the impacts on human life. Therefore, if this core premise of the

amount of tailings that will reach the Markham Canyon as stated in the EIS is incorrect, this will mean that conclusions regarding the impacts of tailings on marine environments and on human life are also significantly underestimated. In summary, the Complainants have grave concerns, consistent with Professor Mana's comments, that the current DSTP site at Wagang is not suitable because of genuine bathymetric and oceanographic characteristics that make it dangerous to the marine ecosystem as a location for dumping of mine waste.

Inappropriate Environmental Impact Statement

The Complainants are also concerned that the Enterprises have also not undertaken sufficient studies to assess and establish baseline data for the Huon Gulf environment, fisheries and marine life, and for coastal villages who depend upon the environment.

Impacts upon communities' rights at Wagang and Yanga villages

We are concerned that the actions of the Enterprises during both construction and operation of the Project will impede upon the rights of communities of Wagang and Yanga villages, due to the presence of the Infrastructure Corridor in their communities. This has been outlined in the Enterprises' Socio-Economic Impact Assessment, however the communities themselves do not appear to have been adequately or genuinely informed about how the Infrastructure Corridor will impact upon their daily lives. This includes the fact that the Infrastructure Corridor would run directly through the village of Yanga, that some homes would require to be demolished to make way for the Corridor, and that people would be unable to grow food on the Infrastructure Corridor for the duration of the project's life.

Activities to be impacted including villagers' ability to grow food, to access Wagang Beach to fish, to gather food and materials required for their subsistence lifestyle, access water sources, access areas to bathe, and also potentially impede upon children's access to education.

Construction is proposed to occur over a period of approximately 1.5 years near the coast. 64 While vague suggestions appear to have been made regarding providing payments to the communities, this will not resolve the many issues. These communities maintain a subsistence lifestyle that is entirely dependent on the environment, and having money will not solve the problem of them not being able to have access to basic rights.

Further, the operation of the DSTP outfall is projected to be at least 28 years, potentially 50 years (as permitted by the Environmental Permit). This means that some of these rights will be breached for possibly half a century or longer.

The Enterprises have not explained these impacts to communities at Yanga and Wagang, as evidenced at a workshop conducted by the Evangelical Lutheran Church of PNG on 29 October 2022.

Part B: Breaches of the OECD Guidelines

We submit that the Enterprises have breached Chapter II (General Provisions), Paragraph A.2; Chapter III (Disclosure), Paragraph 2(f); Chapter IV (Human Rights) of the OECD Guidelines, Paragraphs 1 and 2; and Chapter VI (Environment) of the OECD Guidelines on Multinational Enterprises, including the Prelude, Paragraphs 2(a), 2(b), Paragraph 3 and Paragraph 4 of the OECD Guidelines on Multinational Enterprises.

Human Rights and Environment

We recognise that the provisions regarding Human Rights (Chapter IV) and the Environment (Chapter VI) of the OED Guidelines on Multinational Enterprises are two separate parts of the guidelines. However, these fields are increasingly recognised at an international level (as well as domestically) as intersecting, including the recent recognition at the UN level of a human right to a clean, healthy and sustainable environment. Given this, while we set out each of the various paragraphs of Chapter IV and Chapter VI separately, we address human rights and environment together in this section.

With respect to human rights, the Guidelines provide that Enterprises should, within the framework of internationally recognised human rights, the international human rights obligations of Papua New Guinea as well as the relevant domestic laws and regulations:

- Respect human rights, which means they should avoid infringing on the human rights of others and should address adverse human rights impacts with which they are involved - Chapter IV, Paragraph 1.
- Within the context of their own activities, avoid causing or contributing to adverse human rights impacts and address such impacts when they occur -Chapter IV, Paragraph 2.
- Carry out human right due diligence as appropriate to their size, the nature and context of operations and the severity of the risks of adverse human rights impacts - Chapter IV, Paragraph 5.

With respect to the Environment, the Guidelines provide:

- The Enterprises should, within the framework of domestic laws and regulations and administrative practices and in consideration of relevant international agreements, principles, objectives and standards, take due account of the need to protect the environment, public health and safety, and generally to conduct their activities in a manner contributing to the wider goal of sustainable development - Chapter VI, Prelude.
- Establish and maintain a system of environmental management appropriate to the enterprise, including:
 - collection and evaluation of adequate heath and timely information regarding the environment, health, and safety impacts of their activities
 Chapter VI, Paragraph 1.a);
 - establishment of measurable objectives Chapter VI, Paragraph 1.b);
 and

- regular monitoring and verification of progress toward environmental, health, and safety objectives or targets - Chapter VI, Paragraph 1.c).
- Provide the public with adequate, measurable and verifiable (where applicable) and timely information on the potential environment, health and safety impacts of the activities of the enterprise Chapter VI, Paragraph 2.a).
- Engage in adequate and timely communications and consultation with the communities directly affected by the environmental, health and safety policies of the enterprise and by their implementation Chapter VI, Paragraph 2.b.
- Assess, and address in decision-making, the foreseeable environmental, health, and safety-related impacts associated with the processes, goods and services of the enterprise over their full life cycle with a view to avoiding or, when unavoidable, mitigating them. Where these proposed activities may have significant environmental, health, or safety impacts, and where they are subject to a decision of a competent authority, prepare an appropriate environmental impact assessment – Chapter VI, Paragraph 3.
- Consistent with the scientific and technical understanding of the risks where
 there are threats of serious damage to the environment, taking also into
 account human health and safety, not use the lack of full scientific certainty as
 a reason for postponing cost-effective measures to prevent or minimise such
 damage Chapter VI, Paragraph 4.

We contend that the Enterprises' DSTP plan and pipeline breaches the above guidelines.

Further, the Enterprise has not adequately consulted communities about the risks associated with DSTP or given them an opportunity to withhold or give their consent consistent with free, prior and informed consent.

Failure to respect human rights – Chapter VI, Paragraphs 1, 2 and 5

Professor Mana has brought to light concerning scientific problems with the DSTP proposal at Wagang, which will have irreversible impacts on the marine environment and cause ecological disaster. As a result, the Notifiers assert that there will be profound impacts on human health and well-being, as well as undermining cultural relationships with the marine environment.

The proposal for DTSP at this site will violate the human rights of the Complainants and the communities living along the coast and evidences a significant lack of respect by the Enterprises for human rights. This includes:

- the right to life with dignity;
- the right to a clean, healthy and sustainable environment;
- the right to culture;
- the principles of equality and non-discrimination; and
- the rights of the child.

The right to life with dignity

The Enterprises' plans to dump Wafi-Golpu's mining waste into the sea at Wagang will violate the right most basic and core to all human existence: the right to life. The right to life is protected under Article 6 of the International Covenant of Civil and Political Rights (ICCPR).

In 2019, the UN Human Rights Committee (**HRC**) released General Comment No. 36 on the right to life. The Committee noted that the right to life is the 'supreme right from which no derogation is permitted'. The HRC also noted that 'the right to life has crucial importance both for individuals and for society as a whole. It is a right that inheres in every human being, but it also constitutes a fundamental right, the effective protection of which is the prerequisite for the enjoyment of all other human rights and the content of which can be informed by other human rights.'65

The HRC noted that the right to life 'should not be interpreted narrowly. It concerns the entitlement of individuals to be free from acts and omissions that are intended or may be expected to cause their unnatural or premature death, as well as to enjoy a life with dignity.' With respect to a right to life with dignity, threats and situations do not have to result in loss of life. The HRC listed environmental degradation and unsustainable development as the most pressing and serious threats to the ability of present and future generations to enjoy the right to life. The HRC reiterated this recently in *Daniel Billy et al v Australia* (*Billy*) (at [8.3]):

The Committee observes that both it and regional human rights tribunals have established that environmental degradation can compromise effective enjoyment of the right to life, and that severe environmental degradation can adversely affect an individual's well-being and lead to a violation of the right to life.

With respect to indigenous peoples (such as, the Complainants who are part of the communities living alone the coast at Wagang and Yanga and the Huon Gulf), the HRC said in *Billy*:

The Committee recalls that in certain places, the lack of alternatives to subsistence livelihoods may place individuals at a heightened risk of vulnerability.

In *Caceres v Paraguay*, the HRC found that the communities right to life with dignity had been violated as a result of ongoing fumigations of pesticides that had a negative impact on their daily lives, that polluted the waterways in which they fished, the wells from which they drink, and the crops and farm animals which are their source of food, and which subsequently resulted in individuals' poisoning and hospitalisation.⁶⁸ Further, the HRC also found that there had been a violation of the right to life due to the death of one of the authors due to poisoning.

The threat posed by the Enterprises' DSTP is reasonably foreseeable (in light of Professor Mana's comments).

We contend that damaging or poisoning peoples' food sources and water sources (including in circumstances where the peoples are largely subsistence peoples) will

have a profound impact on human health (from the exposure to heavy metals) and cause multi-generational impacts, that could include hunger, malnutrition, poverty, impacts on childhood development, and impacts on pregnant women and their unborn children.

The right to a clean, healthy and sustainable environment

The right to a clean, healthy and sustainable environment (hereafter, "the right to a healthy environment") underpins the enjoyment of all human rights. It has been recognised as a human right by both the Human Rights Council in October 2021 and the UN General Assembly in July 2022. ⁶⁹ The UNGA resolution called upon States, international organisations and businesses, and other stakeholders to scale up efforts to ensure a clean, healthy and sustainable environment for all.

While the right to a healthy environment has not been considered at international law, it has been considered by regional human rights bodies. The Inter-American Court of Human Rights has found that the right to a healthy environment protects the quality of the environment. As a standalone right, a violation of the right to a healthy environment does not rely upon human harm – it protects the environment that a person lives in per se. The quality of the environment (i.e., what is unclean and unhealthy) is determined by 'technical conditions of quality' and by context. The quality or standard that the right to a healthy environment protects is against significant damage or harm, but this is less than serious or substantial and more than detectable. However, ultimately what is significant will also depend upon whether the interference with the quality of the environment poses obstacles to people living their lives in their vital spaces. The quality of the environment will be violated at a lower threshold for indigenous peoples who rely on their environments for culture, identity and subsistence living.

It is clear from Professor Mana that the use of DSTP at Wagang will have serious consequences for the marine ecosystem. The continued development of the DSTP will violate the right to a healthy environment. Even if the threshold was higher than significant and required serious or substantial harm (which it does not), the tailings are toxic and will remain in the sea and not be deposited at the bottom of the Canyon.

We note here that we are also concerned that no baseline studies have been done or will be undertaken by the Enterprises. Protection of the environment, including the human right to a healthy environment requires an understanding of the quality of the receiving environment. A baseline study of the marine environment is also required to properly monitor the processes of the Enterprise (i.e., DSTP) over their life cycle, with a view to avoiding or, when unavoidable mitigating foreseeable environmental and health impacts. The failure to undertake a baseline study is a violation of Paragraph 3 of Chapter VI (Environment) because no proper environmental assessment has been undertaken. It is also a breach of Paragraph 1(a – (c of Chapter VI (Environment) because without a baseline study the Enterprises cannot establish and maintain a system of environmental management.

The right to culture

Article 27 of the ICCPR provides that 'minorities shall not be denied the right, in community with the other members of their group, to enjoy their own culture, to profess and practise their own religion, or to use their own language'.

The people of Wagang and the greater Huon Gulf maintain a subsistence lifestyle and economy (this is despite living near the city of Lae as they still live on their traditional lands), in which the ocean and surrounding environment is their supermarket, the provider of foods, as well as the source of building materials. This subsistence lifestyle is dependent on a pristine marine environment. The ocean and surrounding environment is also an important place of identity, where the practice of traditions and culture is grounded in the environment.

The culture of the Huon Gulf has been described by Jotham Israel Keleino, who is an Environmental Officer of the Church, and also Indigenous to the Gulf:

The Huon Gulf and Vitiaz Strait are our mother who gives life to us since time immemorial and will continue to do so for generations to come. We share a mutual relationship as the mother is connected to an unborn child through the umbilical cord and therefore to allow DSTP is to cut off this relationship and our right to life.

Sacred sites which are located near the pipeline near Wagang and Yanga villages could also be damaged by the Enterprises' activities.

The Human Rights Committee has said:

The Committee recalls that, in the case of indigenous peoples, the enjoyment of culture may relate to a way of life which is closely associated with territory and the use of resources, including traditional activities as fishing or hunting. Thus the protection of this right is directed towards ensuring the survival and continued development of cultural identity. The Committee further recalls that article 27 of the Covenant, interpreted in light of the United Nations Declaration on the Rights of Indigenous Peoples, enshrines the inalienable right of indigenous peoples to enjoy the territories and natural resources that they have traditionally used for their subsistence and cultural identity.⁷⁴

Further, Article 1(2) of the ICESCR and ICCPR both provide that 'in no case may a people be deprived of its own means of subsistence'.

The subsistence lifestyle of people of Wagang, Yanga, and villages located further afield within the Huon Gulf, will be destroyed or altered beyond recognition under the current DSTP plan.

The Enterprises' plans to dump Wafi-Golpu's mining waste into the sea further breaches many of the key rights acknowledged within the UN Declaration on the Rights of Indigenous Peoples, violating individuals' and communities' rights to practice their culture and cultural traditions (Art 11), to teach their spiritual and religious traditions, customs and ceremonies (Art 12), maintain connection with their

territories, seas and other resources, and to uphold their responsibilities to future generations (Art 25).

Equality and non-discrimination

Non-discrimination and the prohibition on racial discrimination have been described as 'peremptory norms of public international law'. In addition, non-discrimination and equality obligations are also broadly enshrined in international human rights treaties including the ICCPR, ICESCR, ICEDAW, ICRC, and the ICRPD.⁷⁵

In an October 2022 Report of the Special Rapporteur on contemporary forms of racism, racial discrimination, xenophobia and related intolerance on ecological crisis climate justice and racial justice, the UN special rapporteur details that environmental human rights violations are often connected to race, and racial injustice.

The report describes environmental racism as "institutionalized discrimination involving "environmental policies, practices or directives that differentially affect or disadvantage (whether intentionally or unintentionally) individuals, groups or communities based on race or colour"; the report also noted that environmental racism occurs within nations and across borders."

The report details:

The global ecological crisis is simultaneously a racial justice crisis... the devastating effects of ecological crisis are disproportionately borne by racially, ethnically and nationally marginalized groups—those who face discrimination, exclusion and conditions of systemic inequality because of their race, ethnicity or national origin. Across nations, these groups overwhelmingly comprise the residents of the areas hardest hit by pollution, biodiversity loss and climate change. These groups are disproportionately concentrated in global "sacrifice zones" regions rendered dangerous and even uninhabitable due to environmental degradation. Whereas sacrifice zones are concentrated in the formerly colonized territories of the Global South, the Global North is largely to blame for these conditions. As noted by the Special Rapporteur on the environment: "[h]ighincome States continue to irresponsibly export hazardous materials ... along with the associated health and environmental risks, to low- and middle-income countries[.]" Notably, the distinction between "high-income" and "low-income" countries is directly related to the racist economic extraction and exploitation that occurred during the colonial era, for which colonial powers have not been held accountable.⁷⁷

According to the Special Rapporteur on the environment, '[t]oday, a sacrifice zone can be understood to be a place where residents suffer devastating physical and mental health consequences and human rights violations as a result of living in pollution hotspots and heavily contaminated areas.'78 "Sacrifice zones," as

demonstrated in this report, are more accurately described as "racial sacrifice zones."

We submit that the people of the Huon Gulf can be seen to be living in a 'sacrifice zone', wherein two Australian companies, Newcrest and Harmony Gold (Australia) are rendering the Huon Gulf and its people a 'sacrifice zone' in order to generate higher profit through their irresponsible management of hazardous materials.

We submit that this constitutes a contemporary form of environmental racism.

We note that one of the key recommendations within the UN special rapporteur's report is the need to 'systematically hold transnational corporations accountable for environmental racism and climate injustice'.⁷⁹

The rights of the child

Article 6 of the Convention on the Rights of the Child recognises that 'every child has the inherent right to life' and that 'State Parties shall ensure to the maximum extent possible the survival and development of the child'.⁸⁰

We note also the UN Human Rights Committee's assertions regarding Article 24(1) of the ICCPR, that every child is entitled to 'such measures of protection as are required by his or her status as a minor, on the part of his or her family, society and the State. This article requires adoption of special measures designed to protect the life of every child, in addition to the general measures required by article 6 for protecting the lives of all individuals. When taking special measures of protection, States parties should be guided by the best interests of the child, and by the need to ensure all children's survival, development and well-being.'81

An almost certain risk exists that children will suffer impacts to their survival, development and wellbeing across the Huon Gulf, as their communities' key sources of protein (fish and seafood gathered from the ocean) could be lost due to environmental degradation, thus leading to malnutrition and hunger in children.

Further, for those children living in Wagang and Yanga villages, children may also suffer impacts to their survival, development and wellbeing, through a significant reduction in the areas available for growing food due to the infrastructure corridor; or through exposure to heavy metals in the environment as a result of DSTP, or any broken pipelines that could impact upon their drinking water sources.

A clear risk also exists that unborn children will suffer impacts to their development while in utero as a result of their mothers being exposed to toxic wastes present in the environment as a result of DSTP. This could include impacts on their neurodevelopment due to exposure to manganese and other heavy metals.

Failure to conduct appropriate human rights due diligence

We submit that the Enterprises have failed to conduct appropriate human rights due diligence, as required under the OECD Guidelines on Multinational Enterprises.

Chapter IV, Paragraph 5 of the OECD Guidelines requires that Enterprises carry out human rights due diligence 'as appropriate to the nature and context of operations and the severity of the risks of adverse human rights impacts⁸².'

Chapter IV, Commentary 45 specifies that human rights due diligence must go 'beyond simply identifying and managing material risks to the enterprise itself to include the risks to rights-holders' and that it is an 'on-going exercise, recognising that human rights risks may change over time as the enterprise's operations and operating context evolve⁸³.'

Box 4: OECD Guidelines – human rights due diligence

Chapter II General Policies (A)(10): Enterprises should carry out risk-based due diligence, for example by incorporating it into their enterprise risk management systems, to identify, prevent and mitigate actual and potential adverse impacts [...], and account for how these impacts are addressed.

Chapter IV Human Rights (1):Respect human rights, which means they should avoid infringing on the human rights of others and should address adverse human rights impacts with which they are involved.

Chapter IV Human Rights (2): Within the context of their own activities, avoid causing or contributing to adverse human rights impacts and address such impacts when they occur.

Chapter IV Human Rights (5): Enterprises should carry out human rights due diligence as appropriate to their size, the nature and context of operations and the severity of the risks of adverse human rights impacts.

Extractive projects' human rights impacts may be related to security forces or other state agencies, project personnel and activities or may occur between surrounding communities and individuals as a result of conflict and tension over benefits, resources and environmental damage. Breaches of human rights also occur in relation to the rights of all peoples to self-determination and specifically for indigenous peoples to the free, prior and informed consent in relation activities affecting their lands and resources. Environmental damage, contributions to climate change and loss of biodiversity and other impacts on environmental and social resources and ecosystem services are increasingly viewed as human rights impacts on both local and regional communities.

Physical violence, killing, kidnapping and rape are some of the human rights impacts that have been previously connected to extractive projects in PNG.⁸⁴

The Wafi-Golpu EIS does not contain a human rights due diligence or impact assessment.

The Wafi-Golpu EIS also does not contain a social impact assessment of the impact of the project upon communities living along the coast of the Huon Gulf. This is a core aspect that has been omitted, and the nature and context of operations, and the severity of the risks to communities of adverse human rights impacts would appear to require this at a minimum.

The latest available Sustainability Report for Newcrest Mining is their 2020 Sustainability Report. Although it has a section on human rights, there is no specific assessment or review of human rights risks and impacts in the countries of operation or specifically in relation to Papua New Guinea or for the proposed Wafi-Golpu Project.

Papua New Guinea has a long history of human rights issues related to the extractive industry and many of the human rights issues stem from dissatisfaction over benefits and impacts and are related to the original consent procedures for extractive projects. Human rights incidents have been linked to almost every major extractive project in Papua New Guinea. Particularly high profile instances are connected with the Porgera, Panguna, PNG LNG and Ok Tedi mines. Most recently there have been reports of intimidation and violence in relation to the proposed Frieda River mine in the Sepik Province of PNG.⁸⁵

Given the history of human rights violations in PNG related to extractive projects and the potential human rights breaches that damaging extractive activities can have on the rights of indigenous and local communities, the severity of the risks of human rights impacts occurring as a result of the Wafi-Golpu Project indicate that human rights due diligence should be carried out by the Wafi-Golpu Project, prior to any further activity, to identify and prevent actual and potential adverse human rights impacts.

Potential for inappropriate use of force

We are also concerned about the Enterprises' appraisal that there is a possible risk that public or private security personnel may use inappropriate force in the event that people seek to grow food to eat or build their homes in areas proximate to the pipeline. This acknowledgment appears to recognise that there has not been appropriate consent secured in these areas.

The EIS cites:

'It is possible that some individuals may seek to establish gardens or houses over the Infrastructure Corridor subsequent to construction. This would be prohibited, as maintenance access will be retained by the WGJV to fulfil its duties to protect the integrity and safety of the pipeline. Given the support expressed for the Project (see Chapter 5, Stakeholder Engagement), and the narrowness of the maintenance access (less than 25m), it is unlikely that such individuals would be uncooperative to requests to desist from gardening or constructing houses over the pipeline. However, in the unlikely event that an individual refuses to do so, security personnel (public or private) may use inappropriate levels of force.⁸⁷

The Enterprises' EIS also rates the risk as 'possible' that inappropriate use of force may be used by public or private security personnel deployed in connection with the Project, affecting 'landowners and settlers living in proximity to the Infrastructure Corridor, or protestors against the project, mining or DSTP,' for the life of the mine (28 years).⁸⁸

Serious and irreversible environmental damage

The Commentary on Environment within the OECD Guidelines states that: 'The basic premise of the Guidelines is that enterprises should act as soon as possible, and in a proactive way, to avoid, for instance, serious or irreversible environmental damages resulting from their activities.'89

The Notifiers assert that the Enterprises' proposal to use DSTP will, instead of avoiding, cause serious and irreversible environmental damage in the Huon Gulf.

Chapter VI, Prelude - Failure to take due account of the need to protect environment and public health

The Prelude to Chapter VI of the OECD Guidelines on Multinational Enterprises states that:

Enterprises should, within the framework of laws, regulations and administrative practices in the countries in which they operate, and in consideration of relevant international agreements, principles, objectives, and standards, take due account of the need to protect the environment, public health and safety, and generally to conduct their activities in a manner contributing to the wider goal of sustainable development.⁹⁰

We submit that the Enterprises have failed to consider relevant international agreements, principles and standards in their decision to use DSTP, and have failed to take due account of the need to protect the environment, public health and safety. These include widespread international opposition to DSTP, and agreements such as the Rio Declaration on Environment and Development, and the International Council of Mining and Metals Principles, as well as the Universal Declaration on Human Rights, the International Covenant on Social, Economic and Cultural Rights (ICESR) and the UN Declaration on the Rights of Indigenous Peoples.

A number of nations, including the United States and Canada, have prohibited or restricted dumping mine tailings in natural bodies of water.⁹¹ . An Executive Summary of the Enterprises' EIS itself notes that at the time, DSTP was used at only 'six mines in four countries'.⁹²

Norway is the only country in Europe to allow solid mine waste dumping into the ocean. Submarine tailings disposal of solid mine waste is only taking place in Norway, Turkey, Papua New Guinea, Indonesia, and Chile. However, Norway and PNG are the only countries in the world permitting new mines that would use submarine tailings disposal and the projects are strongly opposed in both countries. Further, in 2018 the Norwegian government placed a four-year moratorium on new permits to dump mine waste into the sea.⁹³

Marine dumping of tailings waste, at either a shallow or deep level, is not permitted in Australia. However, Australia is home to international mining companies that still engage in this harmful practice in Papua New Guinea.

Further, while DSTP is permitted in Papua New Guinea, there is no regulation or legislation regarding it, meaning that there is no oversight of these proposed activities nor best practice in Papua New Guinea. Draft Guidelines for Deep Sea Tailings Placement were developed,⁹⁵ however these are not enforceable and not strictly adhered to.

Rio Declaration on Environment and Development

The Environment Chapter of the OECD Guidelines 'broadly reflects the principles and objectives contained in the Rio Declaration on Environment and Development' as well as the Aarhus Convention and Access to Justice in Environmental Matters contained in such instruments as the ISO Standard on Environmental Management Systems.⁹⁶

We assert that the Enterprises' proposal to dump Wafi-Golpu's mining waste into the ocean breaches many of the principles stated explicitly within the Rio Declaration on Environment and Development. These include:

- Principle 1 'Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.' The people of the Huon Gulf currently live in harmony with nature, and have done for centuries. Dumping mining waste into the sea places the health, local economy and social fabric of communities under threat, and will jeopardise the harmony with nature they currently maintain.
- Principle 3 'The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.' DSTP will have multi-generational impacts and will rob future generations of not only their environment, but the opportunity to make a livelihood, including through fishing. Communities may also face impacts on their health, and development of their children, through exposure to heavy metals and absorption of heavy metals in the food chain. As stated by Jotham Israel Keleino, a representative of ELC: "The issue of Wafi-Golpu is multigenerational; the injustices will be multi-generational."

Other relevant principles

Newcrest Mining is a member of the International Council of Mining and Metals.⁹⁷ The Enterprises cites that the 'International Council of Mining and Metals (ICMM) allows for the consideration of alternative tailings management options based on a rigorous environmental and social impact assessment.'

ICMM Principle 6, Environmental Performance, relevantly states: "Riverine tailings, freshwater lake and/or shallow marine tailings disposal may be considered **only** if deemed to be **the most environmentally and socially sound alternative,** based on an **objective** and **rigorous environmental** and **social impact assessment** of tailings management alternatives."

However, it appears that Principle 6 has not been satisfied, as no social impact assessment of the Huon Gulf has occurred.

The Enterprises have previously stated that a rigorous assessment of environmental and social considerations to inform the selection of a DSTP option is also required by the International Finance Corporation (IFC), which reflects the general requirements for lender institutions:

"If and when DSTP is considered, such consideration should be based on detailed feasibility and environmental and social impact assessment of <u>all</u> tailings management alternatives, and <u>only if</u> the impact assessment demonstrates that the discharge is not likely to have significant adverse effects on marine and coastal resources, or on local communities.""⁹⁹

However, it appears that there has not been an environmental and social impact assessment of all tailings management alternatives.

Financial institutions are increasingly concerned about the risks of mine waste, and are taking action to limit this risk. For example, Citigroup, Standard Chartered and Credit Suisse have all prohibited or severely restricted financing for clients practicing marine and riverine dumping. In 2020, Storebrand, a leading Norwegian firm, divested from MCC, the majority shareholder in the Ramu Nico mine in Papua New Guinea over unacceptable levels of environmental damage. The Ramu project is a recent, so-called 'modern' example of deep-sea tailings disposal technology, and it is an environmental disaster impacting biodiversity, human health and livelihoods. A lawsuit was filed by the Madang provincial government and landowners calling for DSTP to stop and the tailings disposal to be moved on land because of environmental harm and health impacts.

In 2016, a motion at the International Union for the Conservation of Nature (IUCN0 World Conservation Congress called to "stop the destruction and degradation of marine habitats by dumping of mining waste", which also called for a ban of DSTP for new mines, and urged for the creation of a plan to stop ongoing marine disposal of mining waste. According to the IUCN, the practice of DSTP "has potential significant harmful effects through pollution and smothering of marine life and "may negatively affect human health". 101

Chapter VI, Paragraphs 2(a), 2(b) - Failure to provide adequate information, and adequate communication with communities

The Enterprises have also failed to provide the public with adequate information on the potential environmental and health impacts of Wafi-Golpu DSTP (Chapter VI, 2 (a), (b)), and have also failed to engage in adequate and timely communication and consultation with the communities affected by the Enterprises' decision to implement DSTP (Chapter VI, 2(b)). The Enterprises have also failed to disclose 'foreseeable risk factors' (Chapter III, 2(f)).

This includes a failure to disclose:

- the amounts of tailings that will be suspended in the Huon Gulf;
- the toxicity of the tailings:
- risks to human health; and

- the pipeline route to the key villages of Wagang and Yanga.

Failure to disclose the volume of tailings that will be suspended in the Huon Gulf

Over the life of the mine, 360Mt of tailings waste (360,000,000 tonnes) will be generated. 102 We believe that most of this, if not all, will be dumped directly into the waters of the Huon Gulf.

In addition, the Enterprises have calculated a higher amount of reserves within the Wafi-Golpu deposit, which could lead to 1 billion tonnes of mining waste being discharged into the ocean. This would be equivalent to the entire amount of tailings dumped by the controversial Ok Tedi mine across its history until the end of 2022, into the Fly River, which has caused widespread environmental damage.

The Enterprises released their 20 page document *Deep Sea Tailings Placement and the Huon Gulf, Common Questions and Answers About the Marine Environment and Oceanographic Studies,* which the company translated into Tok Pisin. However, this document was lacking in basic information that concerns coastal communities. For example, the company failed to:

- state the distance from the high tide line that the pipeline will be discharging waste into the ocean;
- state the distance from the pipeline discharge to the Busu River;
- state the distance in metres from the pipeline outfall from the closest village of Wagang;
- provide complex scientific information in plain language regarding ecotoxicity and geochemistry of tailings.

Of most concern, the Enterprises have failed to adequately explain that not all of the tailings will go into the Markham Canyon, simply stating in this 20 page document that 'most tailings will flow down the steep Markham Canyon wall to the canyon floor... Some of the finer tailings will ... move into the water column as plumes before settling on the seabed.' ¹⁰³ This fails to identify that the Enterprises' own EIS estimates that 144 million tonnes of mining waste will not settle on the canyon floor.

For, the EIS itself, acknowledges that this will only occur for 60 per cent of the waste: 'about 40% of the tailings is predicted to disperse in the water column as subsurface plumes, while the remainder would deposit on the canyon floor at depths in excess of 2,000m.'¹⁰⁴ This means that potentially 144 million tonnes of tailings are anticipated to disperse in the water column. Or, if the Enterprises exhaust the quoted reserves, this would lead to approximately 900 million tonnes being dispersed in the water column.

These quantities do not appear to have been communicated or adequately explained to communities; they are simply told that 'most tailings' will end up in the Markham Canyon. This is a glaring omission by the Enterprises and constitutes an immense failure to disclose.

Further, the Enterprises appear to have failed to disclose to communities that the volume of tailings to be suspended in the Gulf is contested. Professor Ralph Mana in his independent review of the EIS has heavily criticised the findings in the Enterprises' EIS regarding tailings deposition. He has stated his concern that more than 90 per cent of tailings will not reach the Markham Canyon, and instead disperse in the water column, and spread 30km from the site. This means that potentially 324 million tonnes could end up dispersed in the water column. If the Enterprises choose to utilise all the resources of the Wafi-Golpu deposit, this could lead to 900 million tonnes being dispersed in the water column.

Failure to disclosure the toxicity of the tailings

We do not believe that citizens of PNG have been adequately informed about the mineral content of the tailings, how toxic they are, or what impacts these could have on the environment or people's health. Information regarding the mineral content of the tailings has instead been buried in a very long and technical EIS compiled by the company.

A more specific breakdown of the mineral components of Wafi-Golpu tailings has not been provided by the Enterprises in their EIS, or in their one-page fact sheets on their website, 106 meaning that communities are not informed about the anticipated volumes of these metals to be dumped into the Huon Gulf.

The tailings of Wafi-Golpu may also include seven processing chemicals that were used to process the tailings within the remaining process water. Many of these chemicals are described as harmful to aquatic organisms; may cause long term adverse effects in aquatic environments; will contribute to elevated oxygen demand; cause harmful effects in pH shift; react with water to form sulfuric acid; and are toxic to aquatic life.

A one page fact sheet on 'Mine tailings' on Wafi-Golpu's website states that: 'mine tailings from flotation processing of copper gold ore is typically not toxic – studies will be undertaken to confirm this'. 108

It also remains unclear as to whether cyanide will be used in processing across the mine's life. While the EIS states it will not be used, it also states, and 'in any case, these tailings will be discharged at depths way below where local fish are caught for eating'. 109 When requested in writing by the Notifiers on 31 August 2022 to provide further information regarding the mineral composition of the tailings, and the chemicals to be discharged and their quantities, the company did not provide any further information.

Wafi-Golpu waste minerals will contain enargite and tennantite, both of which contain arsenic. Arsenic is released into the environment if these minerals oxidise, or if the pH changes to an acidic state.

Therefore, there is significant risk across the whole pipelines, including through the city of Lae, of exposure to arsenic, if the pipelines were to rupture or be damaged. Similarly, coastal communities may be exposed to arsenic in the sea. This does not appear to have been explained to communities either, including at what levels arsenic may be present, whether it will become bioavailable and when.

Arsenic is one of the World Health Organisation's 10 chemicals of major public health concern. Health concern. WHO notes that 'inorganic arsenic compounds (such as those found in water) are highly toxic while organic arsenic compounds (such as those found in seafood) are less harmful to health'.

Immediate symptoms of acute arsenic poisoning include 'vomiting, abdominal pain and diarrhoea, which are followed by numbness and tingling of the extremities, muscle cramping and death, in extreme cases'.¹¹²

WHO notes that:

the first symptoms of long-term exposure to high levels of inorganic arsenic (for example, through drinking-water and food)' are usually observed in the skin, with skin lesions and hard patches on the palms and soles of the feet (hyperkeratosis). These occur after a minimum exposure of approximately five years and may be a precursor to skin cancer.

In addition to skin cancer, long-term exposure to arsenic may also cause cancers of the bladder and lungs. The International Agency for Research on Cancer (IARC) has classified arsenic and arsenic compounds as carcinogenic to humans, and has also stated that arsenic in drinking-water is carcinogenic to humans.

Other adverse health effects that may be associated with long-term ingestion of inorganic arsenic include developmental effects, diabetes, pulmonary disease, and cardiovascular disease. Arsenic is also associated with adverse pregnancy outcomes and infant mortality, with impacts on child health, and exposure in utero and in early childhood has been linked to increases in mortality in young adults due to multiple cancers, lung disease, heart attacks, and kidney failure. Numerous studies have demonstrated negative impacts of arsenic exposure on cognitive development, intelligence, and memory. 113

Failure to disclose risks to human health

Villagers in Wagang and Yanga revealed at a workshop in October 2022 that they were told that fish would be fine to eat. They do not appear to have been told about bioaccumulation of metals.

Even at its conservative estimate of 60 per cent of tailings ending up in the Markham Canyon, the Enterprises' EIS asserts that following DSTP, levels of manganese will increase in fish to a concentration double the background range.¹¹⁴

The EIS notes that this predicted maximum manganese concentration in fish is 'an order of magnitude lower than daily concentrations required in the human diet and up to two orders of magnitude lower than concentrations where there are risks of adverse human health effects.' However, this is likely underestimated, given that a far higher percentage of tailings will end up in the water column.

Appendix N to the Wafi-Golpu EIS notes the role of subsurface plumes as sites of potential ingestion by fish:

the information reviewed for this evaluation indicates that fish consumed by people in the Huon Gulf <u>may bioaccumulate metals of potential concern</u> (i.e., arsenic, copper, manganese, mercury, nickel and zinc) via water and food ingestion from <u>within the subsurface plumes from DSTP</u> but not from benthic fauna or sediment.¹¹⁶

The role of subsurface plumes is concerning, as the Enterprises' EIS currently estimates that potentially 40 per cent of tailings could be suspended in subsurface plumes leading to bioaccumulation; however Professor Mana's suggestions of 90 per cent of tailings being suspended, more than doubles the potential for bioaccumulation. Hundreds of millions of tonnes of tailings will form subsurface plumes, able to be ingested by fish, which are subsequently consumed by people. This has huge implications for human health.

Exposure to high levels of manganese can lead to 'serious health effects especially to the central nervous and respiratory systems. Very few studies on the effects of long-term low level exposure to [manganese] have been reported.'117

It is also important to note that it has been suggested that adverse health effects from manganese exposure, especially neurologic effects, occur on a "continuum of ...dysfunction" that is dose-related... mild or unnoticeable effects may be caused by low, but physiologically excessive, amounts of manganese, and these effects appear to increase in severity as the exposure level or duration of exposure increases.'¹¹⁸

Therefore, we query as to how safe it will be for communities over the next 28 years and beyond, to continue to eat fish from the Huon Gulf on a regular basis, and whether, as the duration of exposure increases, whether communities will experience growing impacts on their health, including neurologic effects.

Zinc, which is also present within Wafi-Golpu tailings, produces acute toxicity to freshwater organisms over a certain concentration range.¹¹⁹

Arsenic and mercury were found by the Enterprises to exceed the FSANZ standards in many fish species consumed by people in the Huon Gulf, in the absence of DSTP.¹²⁰ Therefore, the introduction of DSTP in the Huon Gulf will lead to significant increases in arsenic and mercury, bioaccumulation and biomagnification.

Chapter VI, Paragraph 4 – Failure to use a precautionary approach

The Enterprises, in pursuing DSTP, are relying on the lack of full scientific certainty regarding DSTP's environmental impacts, in order to avoid having to implement a more expensive tailings management system. We submit that this is grossly inappropriate and may constitute a breach of Paragraph 4 of Chapter VI of the OECD Guidelines.

Paragraph 4 provides:

'Consistent with the scientific and technical understanding of the risks, where there are threats of serious damage to the environment, taking also into account human health and safety, [Enterprises will] not use the lack of full scientific certainty as a reason for postponing cost-effective measures to prevent or minimise such damage.'

Paragraph 4 reflects Principle 15 of the Rio Declaration on Environment and Development.

There is a lack of scientific data available regarding the impacts of DSTP in PNG (and across the world more broadly). Firstly, scientific investigations in the deep sea are expensive and technically challenging, and as a result 'there is very little information on the environmental impacts of DSTP...making it difficult to truly assess the effects of DSTP in these waters'.¹²¹

The real impact of DSTP in PNG is therefore 'not quantitively known, and conclusions are drawn on scientific estimations'. However, there is 'tangible environmental damage being caused by DSTP, the full effect of which cannot be estimated due to the lack of scientific studies in affected marine waters, largely due to cost and technicality'. 123

Dr Simon Judd has written that:

Little is known about the environmental impacts of DSTP. In PNG there is very little monitoring carried out. Globally, research on the impact of DSTP has focused on larger fauna found in the open sea and on near shore coral communities. There are some studies which have shown that trace metals (and other classes of contaminants) reduce the richness and evenness of marine communities but next to nothing is known of effects at the deep-sea bed where the millions of tonnes of sediment eventually end up. The geochemical nature of the ore itself dictates how tailings will behave once they are discharged into the environment. Sulphide mineral ores, which when exposed to oxygen either in air or water, will create acids and liberate often harmful metals into the environment and, consequently, the food chain. DSTP requires of access to deep (>1000 m) ocean via a steep continental or island slope. The theory is that sediments will eventually settle deep enough in the ocean where there is little or no oxygen available thereby stopping the chemical reactions that lead to acid mine drainage and heavy metal contamination from taking place. Because the sediment eventually accumulates in the ocean depths, the monitoring of environmental impacts is difficult and expensive. It is hardly surprising then that little is known about the impacts of DSTP.¹²⁴

Dr Simon Judd further suggests that DSTP is more accurately defined as Marine Mine Waste Disposal (MMWD). He writes that:

The whole premise of MMWD, is based on a severe paucity of data and in comparison with the clearly visible impacts from terrestrial waste disposal methods. The work of Hughes et al. questions this assumption by showing that there are significant impacts from MMWD. Many more detailed studies are required to justify or validate the process as a viable

alternative. While no further MMWD should be approved in PNG, it is clear that more monitoring of the seabed is required before, during and after dumping of tailings takes place. The impacts are likely to be no less profound than those already witnessed in the terrestrial environment, just less visible. 125

While the science remains uncertain regarding the specific impacts of DSTP at specific locations, there are general concerns well established in the literature regarding DSTP. The main concerns related to the volume of tailings disposed through DSTP include:

- 'alteration of the physical environment;
- change in species composition/abundance and biodiversity;
- increased metal bioaccumulation'. 126

Commonly mentioned disadvantages and risks of DSTP include:

- 'smothering benthic organisms and physical and geochemical alteration of bottom habitat;
- reduced number of species and biodiversity of marine communities;
- risk of liberation of toxic elements from the tailings to the seawater;
- bioaccumulation of metals through the food chains and ultimately into fish consumed by humans, with associated human health risks;
- the deposited tailings cannot be recovered;
- larger footprint on the seabed than on land;
- potential toxicity of the flotation reagents used on the marine ecosystem;
- plume sharing and dispersal of the fine particles throughout the sea;
- relocation of the tailings in different compartments of the marine ecosystem due to upwelling and currents'.¹²⁷

DSTP is currently permitted at 4 mines in PNG: Lihir gold mine, Simberi gold mine, Misima Island gold and silver mine and Ramu Nickel. Newcrest Mining is currently using DSTP at its mine in Lihir in Papua New Guinea. Scientists have found marine environmental impacts as a result of DSTP at the site, and also at the Misima DSTP site, operated by Australian company St Barbara. The effects of DSTP at Lihir are detectable 'up to ~20 km east of the discharge point and to at least 2000 m water depth, but the full spatial and bathymetric extent of impact remains to be determined by a broader-scale survey'. 129

Chapter VI, Paragraph 3 - Failure to adequately address environmental and likely human rights impacts with a view to avoiding or mitigating them

The Guidelines provide that Enterprises should '[a]ssess, and address in decision-making, the foreseeable environmental, health, and safety-related impacts associated with the processes, goods and services of the enterprise over their full life cycle with a view to avoiding or, when unavoidable, mitigating them' (Chapter VI, Paragraph 3).

The Enterprises have breached this Paragraph, through their failure to adequately assess and address environmental risks of their Project activities in their decision-making to use DSTP, including:

- the seismic risks to the pipelines' corridor, including proximity to the Bumbu and Gain faultlines, and potential impacts upon the city of Lae and surrounding communities;
- failing to assess and address foreseeable environmental and health impacts over the full intended life cycle of the Wafi-Golpu mine (a period longer than 28 years);
- failing to assess foreseeable environmental and human health impacts of deploying filtrate into the ocean near Berth 6 in Lae;
- failing to assess in detail the specific ways and locations in which the villages
 of Wagang and Yanga's access to food, drinking water sources, bathing, food
 gathering, hunting will be inhibited and impeded during construction, and
 across the full intended operation of the mine;
- failure to assess the foreseeable risks posed by the pipeline corridor going through the Busu River's floodplain, which is known to be subject to major inundation:
- failing to assess what impacts will be felt by the environment and other villages located across the Huon Gulf, by the 40% of tailings that the company estimates will not reach the ocean floor;
- failing to assess the role of two ocean currents in the area, which will transport the mining waste in two directions.

The Enterprises also appear to have failed to provide an impact assessment of the Project's impacts upon sago plantations located near Wagang village, and the Bukawa (Mundala) and Labu mangrove swamps, which are both located close to Wagang. These are just two of the many productive wetlands located along the Huon Gulf intertidal zones where the affected communities harvest fish, mud crabs, eels, lobsters and clams for food. In addition, communities process the clams into lime products to sell at the Lae market as their major source of income.

The fertile swamps also host sago stocks as the staple food along the coastal communities, that have sustained people for generations. These sago stocks are a critical local crop for the local people's food security and are also used for multiple purposes (food; rafts; constructing house walls, artefacts, traditional crowns and dresses; constructing house roofs; weaving baskets to store food; wrapping food and more).

The Enterprises have failed to appropriately assess the impacts of the Project upon these important locations and source of subsistence and livelihood.

Chapter VI, Paragraph 3 - Failure to assess impacts over the full life-cycle

We assert that the Enterprises have breached Chapter VI, Paragraph 3, and have failed to assess and address in decision-making, the foreseeable environmental and

health impacts associated with the Project over the full life cycle, with a view to avoiding, or when unavoidable, mitigating these impacts.

Despite citing a 28-year life for the Project, the Enterprises have also applied for and have been granted an Environmental Licence lasting 50 years.

This means that the impact assessment of Wafi-Golpu has been significantly minimised within the Enterprises' EIS.

If calculated on the basis of the estimated reserves, 1 billion tonnes of mining would be discharged, and the mine life would last for many more decades, affecting many further generations of communities.

This intended life of the mine has not been explained clearly to communities, or to the general public in PNG.

Chapter VI, Paragraph 1 - Failure to establish and maintain a system of environmental management

Chapter VI, Paragraph 1 of the OECD Guidelines provides that enterprises are required to establish and maintain a system of environmental management, including:

- a) collection and evaluation of adequate and timely information regarding the environmental, health, and safety impacts of their activities;
- b) **establishment of measurable objectives** and, where appropriate, targets for improved environmental performance and resource utilisation, including periodically reviewing the continuing relevance of these objectives;... and
- c) **regular monitoring and verification of progress** toward environmental, health, and safety objectives or targets.

However, we submit that the Enterprises have breached this provision, as the Enterprises have failed to collect adequate information regarding the environmental and health impacts of their activities.

The social, economic and environmental baselines for coastal peoples living within a 30km radius of the DSTP have not been adequately captured in the EIS.¹³⁰ For example, none of the villages located within the 30km radius of the DSTP, aside from Yanga and Wagang, appear to have even been named in the EIS, let alone been assessed for socioeconomic impact.¹³¹

An article written on behalf of coastal stakeholders stated that 'with a lack of baseline data for coastal peoples living within 30km radius of the proposed DSTP, the State and the developer are treating coastal stakeholders as second class citizens, and their sustenance, livelihoods and environments seem to be of no consequence as far as the development of [Wafi-Golpu Mine] is concern.'132

Failure to identify baseline data means that the Enterprises will also be unable to establish measurable objectives (OECD Guidelines, Chapter VI, Paragraph 1(b)) or conduct regular monitoring and verification of progress towards objectives (OECD Guidelines, Chapter VI, Paragraph 1(c)).

This is a serious omission. It will impede the potential for communities to be informed of any changes to their environments, to be able to attribute any changes to Wafi-Golpu DSTP, or to create any targets for improvement, without an appropriate baseline.

This has been critiqued by Professor Ralph Mana, who has said that: 'WGJV does not have any substantial baseline data of Huon Gulf. Baseline data is a fundamental requirement for DSTP. Organisms will be destroyed by tailings and filtrate waste water. Monitoring will be impossible if you don't have baseline data.'133

Professor Mana also said he was concerned with the lack of marine research before special mining leases were granted to other mines in the country that used DSTP method for disposal, and stated: 'Damage done by tailings is so serious that ecosystems of the area are basically destroyed permanently and no recovery to its original state can happen.' 134

PNG's Draft Guidelines for Deep Sea Tailings Placement state that consideration of environmental and social systems should inform the decision as to whether to use DSTP:

'The decision as to whether the use of DSTP is deemed acceptable should be based on a good understanding of the relevant environmental and social systems affected, but this is ultimately a political decision made by the government.' 135

The Draft Guidelines for Deep Sea Tailings Placement is a set of guidelines accepted by the PNG Conservation and Environmental Protection Authority (CEPA) and the Enterprises are expected to comply. The Guidelines appear to require baseline data, stating that:

'After careful scrutiny of the existing data if DSTP is the best available option and is deemed acceptable, then a detailed environmental baseline of the site should be carried out as part of the tailings management alternatives analysis.' 136

Instead of establishing appropriate baselines, the EIS appears to suggest low levels of biodiversity in the Huon Gulf. For example, Appendix N suggests benthic fauna is low in diversity and density, 'consisting primarily of occasional **unidentified species** of shrimp, sea whips, and ophiuroids'.¹³⁷

According to surveys carried out by WGM consultants within 30km radius of the proposed DSTP, **only 8 species** of fish and sharks were reported. However, a 2012 progressive report - BIOPAPUA Expedition: Highlighting Deep-Sea Benthic Biodiversity of Papua New Guinea – by The Museum of Natural History in France reported a high level of biodiversity within the Huon Gulf. The BIOPAPUA Expedition, which included Professor Ralph Mana, found **2000 species** of vertebrates and invertebrates in the Huon Gulf, of which 15% were new to science. This important report was not mentioned in the EIS, and appears to

demonstrate the significant disconnect between the science paid for by the Enterprises and independent science.

Similarly, data in the EIS regarding the fisheries in the Huon Gulf does not appear to have obtained records of the Morobe Fisheries Authority.

Similarly, the impacts on turtles appear to have been underestimated or minimised within the Enterprises' EIS. The leatherback turtle is the largest of all living turtles and its conservation status is vulnerable. The Huon Coast in Morobe Province has the largest leatherback turtle nesting population in PNG, ¹³⁹ and is one of the biggest leatherback turtle nesting sites in the western Pacific. Approximately only 15km from the proposed outfall at Wagang, some 200 – 300 Leatherback turtles come on shore every year to lay their eggs. The significance of this has not been appropriately assessed by the EIS, including the fact that turtles dive to 1,200m to find food. Turtles are mentioned in Appendix S of the EIS.

Similarly, it appears that impacts upon coral reefs were not adequately factored into the Enterprises' EIS, including communities' dependence on fishing at the reefs. Coral is mentioned in Appendix S at iv, including 'subsistence coral reef fisheries of the Huon Gulf north coast are somewhat limited, except offshore at the Tami Islands (95 km from Lae and the Coastal Area) where much larger areas of coral and patch reefs are present'. However, this draws from a literature search and inspection of satellite photography rather than discussions with communities of the areas important for subsistence fisheries.

Absence of free, prior and informed consent

Free, prior and informed consent (FPIC) of indigenous peoples to projects affecting their lands, territories and resources is a human right recognised by the United Nations.¹⁴¹

The Guidelines Chapter IV Human Rights Commentary 40 refers specifically to indigenous peoples and states "…enterprises should respect the human rights of individuals belonging to specific groups or populations that require particular attention, where they may have adverse human rights impacts on them. In this connection, United Nations instruments have elaborated further on the rights of indigenous peoples; persons belonging to national or ethnic, religious and linguistic minorities…¹⁴²."

The OECD clarifies, in supporting documentation, that the United Nations instruments referred to in relation to indigenous peoples principally include the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).¹⁴³

The UNDRIP requires consultation with the objective of obtaining free, prior and informed consent (FPIC) to be undertaken prior to the development of projects that affect indigenous peoples' rights to land, territory and resources, including mining and other utilization or exploitation of resources ¹⁴⁴.

Box 2: UNDRIP

Article 10: Indigenous peoples shall not be forcibly removed from their lands or territories. No relocation shall take place without the free, prior and informed consent of the indigenous peoples concerned and after agreement on just and fair compensation and, where possible, with the option of return.

Article 29: States shall take effective measures to ensure that no storage or disposal of hazardous materials shall take place in the lands or territories of indigenous peoples without their free, prior and informed consent.

Article 32: States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.

Rights contained within the UNDRIP are predominantly enforced against the State, however the OECD Guidelines for Multinational Enterprises are clear that where states have failed in their obligations, the obligations upon Enterprises are not diminished. OECD Guidelines Chapter IV Human Rights Commentary 38 states that a 'State's failure either to enforce relevant domestic laws, or to implement international human rights obligations or the fact that it may act contrary to such laws or international obligations does not diminish the expectation that enterprises respect human rights¹⁴⁵.'

Australia endorsed the UNDRIP in 2009. While Papua New Guinea has not yet ratified the UNDRIP, the UNDRIP is recognised internationally as a legal instrument clearly identifying the rights of Indigenous peoples and providing respect to, and protection of Indigenous people globally. The UNDRIP provides guidance for parties interacting with Indigenous peoples. As Australia has endorsed the UNDRIP, Australian companies have a responsibility to abide by it.

Papua New Guinea legislation makes some provision for consent requirements in relation to mining projects under the Mining Act and the Environment Act (via the competent authority for assessing Environmental Impact Statements, the Conservation and Environment Protection Authority (CEPA) of Papua New Guinea. According to the CEPA Guidelines, Project proponents must demonstrate the viability of their projects by providing "information onthe extent of landowner and/or resource owner support, including a copy of the formal written approval of their consent" and the same must be shown in the application for a permit for waste discharge.

Unlike the more expansive wording of the UNDRIP, the PNG regulations appear to limit the requirement for consent to direct customary land/resource owners and not to a wider category of peoples whose lands, territories and resources are affected by a project. For the Wafi-Golpu Project this consent has been confined in the Wafi-Golpu EIS to three landowner associations representing customary land holders around the immediate area of the mine. Section 5.4.2 of the EIS makes a statement regarding community support for the Wafi-Golpu Project only in relation to these 'Mine Area landowners'. ¹⁴⁶ No formal written approval of Mine Area landowners consent is attached.

It does not seem expected under PNG regulations that consent is required from downstream communities that are impacted by the mine activities but are not direct land/resource owners in the mine area, specifically in this instance the Complainants i.e. the coastal communities around Lae most directly affected by the Wafi-Golpu Project DSTP approach to tailings management. This is consistent with historic practice in PNG as outlined in a recent report on extractive industries in the country which states, in relation to FPIC for resource extraction projects, that 'downstream communities who are affected by the impacts of mining — especially tailings disposal - tend to be left out of the process, even though the impacts they face can be every bit as severe as communities whose land contains the resource.'147

However, land in PNG is primarily customarily owned by the local people and various legislation dealing with the use and development of customary land requires that consent is obtained from customary landowners before any activity can be undertaken. The Lands Act 1996 and the Mining Act 1993, for instance, requires obtaining 'agreement' and engaging in 'consultation' with the customary landowners prior to project development. The PNG Constitution specifically describes what this 'consultation' should look like by stating that "where a law provides for consultation between persons or bodies, or persons and bodies, the consultation must be meaningful and allow for a genuine interchange and consideration of views." The particular interest of the Constitution in requiring "consultations" to be "meaningful...and genuine" reflects the two pillars of decision-making processes in PNG society — "consultation and consensus" — which the drafters of the PNG Constitution identified as fundamental and that it requires the people "to be actively and meaningfully involved in [decisions regarding] their own development".

The PNG National Court has held that in development projects, this constitutional requirement for "meaningful consultation" cannot be satisfied with short meetings with selected individuals, but that it requires "more in-depth" and elaborated consultation with the people. ¹⁵¹ According to the Court, that involves "go[ing] to the villages...talk[ing] to the landowners, in their families clans and tribes, in the languages they could understand." ¹⁵² The Court reasoned that "[i]n introducing projects such as this which would have permanent and long-term effect on their land, genuine and meaningful consultation with the landowners must be carried out among the landowners." ¹⁵³ The PNG Supreme Court has clearly interpreted these requirements to mean that project developers must obtain from the landowners their "free and informed consent and approval and ultimately, their social license to operate." ¹⁵⁴

The Supreme Court further made it pointedly clear that:

foreign investors or developers who wish to enter any land in PNG and more so customary land [must] enter into meaningful discussions and negotiations with them [customary landowners] and get their free and informed consent or approval before entering, occupying, and using their land.¹⁵⁵

Moreover, the OECD Guidelines are clear that regardless of the position of a State, an Enterprise is still expected to respect human rights. Australia's endorsement of the UNDRIP makes this expectation even more onerous for companies based or connected to Australia.

The OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector further elaborates by stating that in 'countries where FPIC is not mandated, enterprises should consider local expectations, the risks posed to indigenous peoples and to the operations as result of local opposition. They should pursue an engagement strategy that meets the legitimate expectations of indigenous peoples to the extent that it does not place them in violation of domestic law.'156

Under the OECD Guidelines, the Wafi-Golpu Joint Venture is expected to respect human rights in relation to activities in Papua New Guinea, including the right of the Complainants potentially affected by the DSTP approach to tailings management to give free, prior and informed consent to the Wafi-Golpu Project. Although the PNG regulations appear to exclude some of the Complainants from any consent requirements (as they are not landowners), this does not release the Wafi-Golpu Joint Venture from the expectation to respect the human right to FPIC of the indigenous peoples impacted by the Wafi-Golpu Project, or from its obligations under the PNG Constitution.

In identifying indigenous peoples, the United Nations and its agencies considers self-identification as indigenous peoples to be the fundamental criterion as well as recognition by other groups or by State authorities. The Papua New Guinea Constitution contains numerous references to the traditional and customary nature of the people of the country and specifically recognises traditional customs, practices and beliefs and protects as part of people's constitutional right. 158

The Complainants include members of coastal communities of the Huon Gulf who identify as the Indigenous peoples of Papua New Guinea and practice customary land tenure based on traditional kinship structures which govern land custodianship and usage rights.¹⁵⁹ Customary title is recognised under the Constitution.¹⁶⁰

The Enterprises' engagement with communities

We note that the Enterprises state that they have held numerous engagements and updates with communities. In correspondence dated April 2022 to Jubilee Australia Research Centre, WGJV stated:

Since January 2016, the WGJV has conducted over 2,769 stakeholder engagements with 106,575 attendees. Of these engagements, nearly 900 (involving over 30,000 participants in aggregate) took place prior to the submission of the Environment Impact Statement in June 2018. These stakeholder engagements included regular community updates on DSTP study progress, and a major update was provided in March 2018 regarding the Project including DSTP as the preferred tailings management option. EIS-related consultation in 2018 and 2019 totalled 22 engagements with 4,067 participants. Additional tailings management focused engagements have been undertaken with Huon Gulf communities between Salamaua and Tami Gidu in December 2019, December 2020, March 2021 and most recently in March 2022. These engagements have visited sixteen venues representing over 30 coastal villages and involved some 9,000 people. 161

However, this total list of engagements refers to all of the engagements nationwide regarding the mine. It also does not present the methodology of engagement used to engage with communities.

In the Huon Gulf, it is unclear how many of these engagements were simply presentations of WGJV material. It remains unclear and how many were actively focused on securing consent from communities, and what processes, if any, were undertaken to ensure that free, prior and informed consent was obtained.

Evidence collated from October 2022 workshop

We are in the process of gathering further information from villages in the Huon Gulf, which we will supply as an Annexure to the National Contact Point in the future, in the event that our complaint is accepted.

However, on a preliminary basis, we can provide information from a workshop hosted by the Evangelical Lutheran Church in October 2022. The workshop was attended by 15 participants, and comprised approximately nine individuals from Wagang and Yanga villages, and other participants representing communities located along the pipeline corridor.

We are deeply concerned as participants were unaware of the Project's activities and anticipated impacts on their villages.

Participants were informed about the Project at the workshop, drawing from the EIS, and about potential impacts to their village, using the Enterprises' Socioeconomic Impact Assessment developed for their EIS.

We believe that the following comprises evidence of a lack of free, prior and informed consent being obtained by the Enterprises:

- 4 out of 15 participants had not heard of DSTP prior to the workshop:
- although some participants had heard the term DSTP, there was no clear understanding of what that term actually means;
- there was little to no information known by the group regarding the impact of DSTP on marine life.
- The predominant information shared to communities appeared to have focused on monetary benefit sharing opportunities specifically the 2.5% royalty.
- participants commented that they were not told about the negative impacts of DSTP, only about benefits;
- Workshop conveners reported that 100% of the participants were shocked and distressed when truths of the EIS including the proposed pipeline corridor map was shared and understood.

None of the participants attending had been aware of any of these impacts and infringements to their daily lives and to their community cohesion described in the Socioeconomic Impact Assessment.

Community members told workshop facilitators that they had been informed that it would be fine to eat fish, and women were told that they would be able to maintain gardens over the infrastructure corridor – which is refuted within the EIS.

None of the participants attending appeared to have viewed the current map of the Infrastructure Corridor, which revealed that the Infrastructure Corridor will run directly through Yanga village.

Participants also identified that the EIS does not contain information and evidence on the significance of their cultural and customary sacred sites both on the land and in the sea.

Further evidence of historical lack of consultation

While the Enterprises have been engaging in discussion with communities at the mine site for decades, no such effort has been taken to consult meaningfully with coastal communities.

Further evidence of historical lack of consultation by the Enterprises can be seen in news reports from December 2018, which provide some indication regarding the consultation at Wagang village, the key location proximate to the DSTP outfall.

Vice-President of the Morobe Coastal Solwara Association, Mr Kipu Anonga said that 'only one consultation meeting was conducted at Wagang village, without fair representatives from the marine districts of Labuta (Nawaeb), Yabem-Mape (Finschhafen), Sialum, Wasu and Siassi Island (Tewae-Siassi), and Salamaua and Morobe posts (Huon Gulf). He said that coastal communities were given **limited time to comment** over the environment impact statement (EIS) because **villagers found it difficult to understand the scientifically written EIS document within limited time to consult marine biologists, environment specialist and lawyers for advice**. "Where is justice for a fair consultation from all concerned stakeholders for better solutions?" he said. 162

WGJV also states that 'the WGJV maintains a Public Information Centre in Lae where people can visit to learn more about the Project including DSTP'. However, this does not provide individuals and communities with the opportunity to meaningfully dialogue with the company about their concerns with DSTP. 163

About Free, Prior and Informed Consent

Free, Prior and Informed Consent (FPIC) has been discussed in various definition and guidance documents, including by the United Nations Human Rights Council. The main points are summarised in Box 3. It is clear from these that merely consultation and discussion of issues will not be sufficient to have achieved free, prior and informed consent from communities, and that the standards to be met are quite high for parties seeking to proceed with development projects on the lands of, or impacting, indigenous communities.

Box 3 Free, Prior and Informed Consent (FPIC)

Free: The process of consultation, and seeking consent from indigenous people must be free from intimidation, coercion, manipulation and harassment. In order for consent eventually granted by communities to have any purpose and validity, there must be no coercion either through threat or offer of reward. Whilst recompense can be made for impacts to indigenous communities, this must be balanced and weighed up by the community on the whole. It is essential that all members of the community have access to the decision making process, so states and enterprises seeking consent should engage with communities through their established cultural and institutional decision making bodies. This includes allowing communities to nominate traditional forms of representation and choose how they are represented.

Prior: Processes for consultation and achieving consent from indigenous communities should begin as early as possible in the formulation of the project process and well in advance of approval processes. Consultation wishing to be considered truly 'prior' must occur "before crucial details have already been decided" and at the conceptualisation stage of project planning and design. It is not considered sufficient for consultation to be occurring once plans have been drawn up and the project preparation has commenced.

Informed: Consultation processes that lead to consent must be fully informed, meaning not only that information provided is clear, objective, accurate and both qualitative and quantitative; but also that it is provided in a manner that is accessible to indigenous communities. This should include translation into local languages as needed, utilisation of culturally appropriate procedures for consultation and must include all details for impacts or projected impacts and risks or potential harm that could result for the community, their resources and the local environment. It is important to note that participation in consultation processes does not constitute consent and can damage future attempts to inform local communities by damaging relationships with indigenous communities, so consultation must be done deliberatively and with great consideration for local traditions. Failure to engage with legitimate leadership of indigenous communities can ultimately invalidate any consent that may be achieved through other channels.

Consent: Consent is not merely accession to a pre-determined outcome, but rather an explicit stating of acceptance following a process that has met the above standards for free, prior and informed consent. As consent is so closely tied to communities exercising their to the right to self-determination full license is given to communities to grant or withhold consent for a number of explicitly stated reasons including assessment that the proposal is not in their best interests or that of future generations and as a bargaining tool to address deficiencies in the consultation process. ¹⁶⁴

Ability to ask questions is not sufficient to meet FPIC standard

According to Section 5.4.2 of the Wafi-Golpu Project EIS, the coastal communities of Lae and Wagang were visited as part of the 2018 EIS Roadshow (a series of Project information sessions) where the latest Project design, schedule, approvals process and consultation program details were presented. The EIS states that attendees 'were given opportunities to ask questions and make comments'. According to the international guidance on FPIC, an opportunity to ask questions and give comments is not sufficient to meet the standard for FPIC; in that participation in consultation processes does not constitute consent.

It is clear from the response by the Wafi-Golpu Joint Venture in April 2018 (see **Annexure D**) to a letter written by Mr. Charles Roche of the Mineral Policy Institute in March 2018¹⁶⁵ that the various engagements that had been undertaken or that were planned were not aimed at obtaining the free, prior and informed consent of either the impacted communities in the mine area or other impacted communities

along the proposed infrastructure corridor and at the coast where the proposed marine disposal of tailings will be undertaken. The letter refers to the Wafi-Golpu Project's record of 'consulting with and informing the project's relevant local stakeholders' and notes that the EIS preparation was informed by 'community forums, which discuss proposed project designs and seek stakeholder feedback'. The letter explicitly states a number of times that engagement is to inform and consult in order to obtain feedback on design. There is no mention of free, prior and informed consent or even of the consent required by the mine area landowners under PNG law.

Failure to provide readily understandable and accessible information

Project information must be presented in a manner that is readily understandable to, and accessible by, indigenous communities. The OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector, developed specifically to help enterprises in view of the importance of stakeholder engagement, states in Step 4 that " *Engagement activities should be designed in a way that is appropriate to the context and audience and reflects best practices.*" However, it appears the Enterprise did not conduct engagement activities appropriately for the context.

The Wafi-Golpu Project EIS states in Chapter 5 that "literacy levels are low in many villages located within or close to the Project Area" and that "few people in the villages ... are fluent in English" or "have direct knowledge of underground mining." The EIS provides assurances that the Project has been careful to address such issues in the engagement process by the use of videos, posters, scale models and translators. Despite these assurances, a review of the Wafi-Golpu Project website does not seem to support the statements made.

The Wafi-Golpu Project website provides seven short fact sheets in English, however these are lacking in essential information that would be core to communities' considerations of whether to consent to the proposal. It also provides a Powerpoint presentation in English and Tok Pisin, and four videos – two in both English and Tok Pisin.

Only two formal documents are available in Tok Pisin: the Executive Summary, and Common Questions and Answers About the Marine Environment and Oceanographic Studies (published in August 2018).

However, these documents fail to identify facts that could assist in informing villagers about the risks of DSTP. Just a few examples; 'Common Questions' outlines that 'DSTP systems currently operate in PNG and other countries,' 167 but fails to mention that it is used by less than a handful of countries, or that is prohibited or restricted in other nations. It also asserts that there is 'low marine biodiversity on the seafloor in the canyon and main areas where the tailings are predicted to deposit' 168 – failing to recognise the finding of the Biopapua expedition, which found 2000 species. It also asserts that 'The Huon Gulf is WGJV's preferred location for a DSTP system due to very deep water close to the proposed tailings outfall point'; however this fails to acknowledge that the outfall is 4-6km away from the Markham Canyon. 169 Assessing the Enterprises' claims requires extensive critical research.

EIS language and engagement process

The language used in many of the EIS chapters is technical and care has not been taken to ensure it is understandable to a lay person. The document was made available only on the website and in one physical location meaning that accessibility to the EIS information for the majority of the local community members comprising the Complainants was challenging, if not impossible.

In March 2018, Mr Charles Roche, Executive Director, Mineral Policy Institute, wrote to Newcrest Mining and Harmony Gold with concerns regarding the engagement process with local communities and the availability and accessibility of relevant information for community information and decision making and requesting that studies related to the project, including waste disposal, should be made public for the information of the local communities.

A response was provided by the Wafi-Golpu Joint Venture in April 2018 stating that the EIS document would be available on the Wafi-Golpu Project website following it's lodgement with the PNG government. Despite the concerns raised by Mr Roche there was no commitment from the Wafi-Golpu Joint Venture to further disseminate the EIS document, provide it in any local language or publish any of the supporting studies¹⁷⁰.

Of the 15 resources on the publications page of the Wafi-Golpu Project website, only 3 are in Tok Pisin. The only poster dates from the pre-EIS phase of the Project. The 7 information leaflets, including one on how to contact the Project with questions or concerns, are all in English. The only report, a Baseline Fish Study on metal toxicity in fish of direct relevance to the Complainants, is also in English. Anecdotal information from the Complainants confirms that materials used to support Project discussions in the local communities were not designed to enable indigenous communities to fully understand the Project activities, risks and impacts. Community members have stated that materials were complex, not presented in the local language and there was insufficient time to review them prior to Project discussions.¹⁷¹

A lack of balanced information regarding Deep Sea Tailings Placement

At a workshop hosted by the Evangelical Lutheran Church of PNG in October 2022, participants commented that they had not been provided with balanced information regarding DSTP. Instead, participants said that they had only been told about its benefits, and none of its potential negative impacts.

Timeliness of information

Timeliness of information and engagement events in relation to the Project permitting process is another important element of FPIC. Processes of consultation and achieving consent from indigenous communities should begin well in advance of approval processes.

The Wafi-Golpu Project EIS Roadshow took place in March of 2018 to inform communities about the EIS contents, most specifically the Project commitment to the DSTP approach to tailings management. However, the EIS was submitted in June

2018, just two months later. Although the EIS contains a commitment to ongoing engagement following the submission of the EIS, it was not until the clear and vocal opposition of the Complainants to the Project began to attract press attention in mid-2020 that further meetings to discuss the issue of DSTP were organised with the Complainants. These took place in October 2020¹⁷², just one month before it was confirmed that the Environmental Permit for the Project would be issued by the PNG Government.¹⁷³ A video explaining DSTP for the Wafi-Golpu Project was posted on the Wafi-Golpu Joint Venture YouTube channel in January 2021, almost 4 months after the Environmental Permit for the Project had been issued.

No update or addendum to the EIS has been published on the website or communicated to the Complainants to indicate how questions, comments or concerns have been taken into account in the Project documentation. No process for obtaining the consent of the Complainants has been included in the EIS, posted on the website or discussed with the Complainants directly. The Project appears to have excluded the Complainants from any consent process under PNG Law and has not sought the free, prior and informed consent of the Complainants via any other avenue.

The Enterprises have not undertaken meaningful consultations and have not obtained free, prior, and informed consent from the complainant landowners and project affected communities in accordance with the standard required under either OECD Guidelines or the PNG Constitution.

Consent and the Complainants

The Complainants believe that the Wafi-Golpu Project DSTP tailings management approach will have direct and significant adverse impacts on natural marine and coastal resources subject to their customary use. The Complainants have clearly voiced their concerns and confirmed opposition with respect to the proposed DSTP approach to tailings management for the Wafi-Golpu Project, particularly in relation to potential impacts on marine habitat and fishing activities. These concerns have been clear for some years and were presented to the Wafi-Golpu Joint Venture during various engagements for the project and raised in a letter to the Wafi-Golpu Joint Venture parent companies in March 2018. The June 2020, a public Facebook group Morobe – Say No to Wafi/Golpu DSTP was set up and currently has almost 3000 members.

In February 2021, the then-Morobe Provincial Governor, Ginson Saonu, stated that court action would be taken if the Environmental Permit for the Wafi-Golpu Project was not withdrawn on the basis of the opposition to the proposed DSTP tailings management approach¹⁷⁷. In a news article in February 2021, the Morobe Provincial Governor stated that the "people of Morobe …. have raised concerns on environmental damages in a number of consultation meetings"¹⁷⁸ and that 'the livelihood of persons living from Siassi, Finschafen along the coast to Morobe Patrol Post will be profoundly affected. It is not a risk that our people are prepared to take lying down. The possibility of a repeat of the Basamuk experience has already been forecast.'¹⁷⁹

Remedies sought by the Complainants

The Complainants seek that Newcrest Mining Ltd and Harmony Gold (Australia) Pty Ltd, their subsidiaries and associated companies:

- 1. Publicly commit to abandon current plans to pursue DSTP outfall at Wagang village;
- 2. Develop a new tailings management plan that does not involve a pipeline through the city of Lae and an outfall at Wagang village:
- 3. Halt all further approvals, negotiations and applications, and seek a pause with all PNG authorities regarding their pending decisions, for the Wafi-Golpu Project until FPIC has been given by all affected communities represented by the Complainants;
- 4. Provide a clear explanation of the impacts assessed in their socioeconomic assessment, including impacts on access to water, access to food-growing areas, access to education and access to employment;
- 5. Publicly request that CEPA release the Independent Review of the EIS;
- 6. Provide answers to the specific questions submitted to the Enterprises by Jubilee Australia on 31 August 2022; and
- 7. Fund an external review of their EIS by experts selected by the Complainants.

Annexures

Annexure A: File of signed authorisations from Complainants

Annexure B: Further information about the Enterprises

Annexure C: Open letter issued 1 April 2022

Annexure D: Key correspondence between the Notifiers and or/other community groups and the Enterprises.

¹ Evangelical Lutheran Church of Papua New Guinea (elcpng.org)

² 2019 ELP PNG National Council; 2019 National Youth Conference; 2019 Jabem District Conference; 2020 ELC PNG National Synod; 2021 Jabem District Youth Conference; 2021 Jabem District Conference; and 2022 ELC PNG National Synod.

³ Bethanie Harrieman, 'Chinese owned nickel plant in PNG shut down after toxic spill,' *ABC News*, 25 October 2019, available at https://www.abc.net.au/news/2019-10-25/chinese-owned-nickel-plant-in-png-shut-down-after-toxic-spill/11636086 (accessed 1 June 2022).

⁴ Centre for Environmental Law and Community Rights Inc, https://celcorblog.wordpress.com/

⁵ Jubilee Australia, www.jubileeaustralia.org

⁶ Say No To Wafi-Golpu DSTP, www.nowafigolpudstp.org

⁷ Wafi-Golpu Joint Venture, 'Wafi-Golpu Joint Venture' - https://www.wafigolpujv.com/ (accessed 23 September 2022).

⁸ Wafi-Golpu Joint Venture, 'About', www.wafigolpujv.com (accessed 5 November 2022).

⁹ Wafi-Golpu Joint Venture, 'About', <u>www.wafigolpujv.com</u>; Wafi Mining Ltd is owned by Aurora Gold (Wafi) Pty Ltd. The shares of Aurora Gold (Wafi) Pty Ltd are fully owned by Aurora Gold Ltd, a subsidiary of Harmony Gold Australia that shares the same registered address as Harmony Gold (Australia) Pty Ltd. ASIC, Current and Historical Company Extract, Aurora Gold (Wafi) Pty Ltd, 14 October 2021.

¹⁰ Wafi-Golpu EIS, Chapter 1, at 1-1.

¹¹ Wafi-Golpu EIS, Chapter 6, 6-2.

- ¹² Wafi-Golpu Joint Venture, 'Deep Sea Tailings Placement (DSTP) in the Huon Gulf, Common Questions and Answers about the Marine Environment and Oceanographic Studies,' August 2018, at 8
- https://static1.squarespace.com/static/576cc5cb4402430e8c118af2/t/5b8e2c3c352f53facc377c62/153604443090 2/0520 18 CC DSTP Brochure AUG2018Eng 150dpi.pdf (accessed 7 September 2022)
- ¹³ Wafi-Golpu EIS, Chapter 6, 6-2, available at:
- https://static1.squarespace.com/static/576cc5cb4402430e8c118af2/t/5b5e5d58f950b7feeb84e474/15329112350 78/Chapter-06-S.pdf (accessed 8 November 2022).
- ¹⁴ Wafi-Golpu EIS at 6-49 [6.11].
- ¹⁵ I Wafi-Golpu EIS, at 6-51.
- ¹⁶ Wafi-Golpu EIS at 6.1.1
- ¹⁷ Wafi-Golpu EIS at 6-2.
- ¹⁸ Wafi-Golpu EIS at 6-2.
- 19 Wafi-Golpu EIS at 6-57.
- ²⁰ This is a rough calculation, calculated on the basis of (60X60X24X365X28x30).
- ²¹ 6.10.2
- ²² For example, see Wafi-Golpu Joint Venture Community Consultation, 'Deep sea tailings placement', (Updated 30 September 2017) available at
- https://static1.squarespace.com/static/576cc5cb4402430e8c118af2/t/59b8dabe4c326d96e36271c4/1505286894 820/02_Deep_Sea_Tailings_Placement.pdf (accessed 5 November 2022).
- ²³ Wafi-Golpu Joint Venture, 'Wafi-Golpu Project: Tailings Management Facts,' at 4,
- https://static1.squarespace.com/static/576cc5cb4402430e8c118af2/t/5fa9e3d344651c560229c955/16049694421 43/201028+WGJV+Stakeholder+Letter+Key+Facts+Tailings+Management+DSTP++-+GENERIC.pdf ²⁴ Environment Permit, EP-L3(767), 18 December 2020.
- ²⁵ at [6.3] 6-6, available at
- $\underline{https://static1.squarespace.com/static/576cc5cb4402430e8c118af2/t/5b5e5d58f950b}{7feeb84e474/1532}9112350$ 78/Chapter-06-S.pdf (accessed 27 October 2021).

 ²⁶ Joan Bailey, 'Wafi-Golpu mining to start,' *Post Courier*, 8 September 2022, available at
- https://postcourier.com.pg/wafi-golpu-mining-to-start/ (accessed 14 September 2022).
- ²⁷ Wafi-Golpu EIS, at 6-42.
- ²⁸ The EIS states '360 Mt' of taillings to be dumped which is basically the same as the tailings from ore reserves of 383 Mt. The total mineral resources (which include reserves) are at times reported up to 1,240 Mt of ore leading to ~1,208 Mt of tailings. This value is 1208 / 360 = 3.36 times; i.e. the potential quantity of tailings is more than three times the EIS.
- ²⁹ Earthworks, 'Tailings,' available at https://earthworks.org/issues/tailings/ (accessed 5 November 2022).
- ³⁰ The full list of metals identified: aluminium (Al), silver (Ag), arsenic (As), calcium (Ca), cadmium (Cd), cobalt (Co), chromium (Cr), copper (Cu), iron (Fe), potassium (K), magnesium (Mg), manganese (Mn), sodium (Na), nickel (Ni), lead (Pb), selenium (Se), vanadium (V), zinc (Zn) and mercury (Hg). Appendix L, Tailings Ecotoxicology and Geochemistry, at 20, available at
- https://static1.squarespace.com/static/576cc5cb4402430e8c118af2/t/5b57db11f950b7967de6c0fc/15324854369 49/Appendix-L-sml.pdf (accessed 13 June 2022).
- 31 Phil R. Cummins, Hadi Ghasemi, 'Not if, but when: unless Papua New Guinea prepares now, the next big earthquake could wreak havoc in Lae,' The Conversation, 4 July 2022, available at
- https://theconversation.com/not-if-but-when-unless-papua-new-quinea-prepares-now-the-next-big-earthquakecould-wreak-havoc-in-lae-
- 185708#:~:text=Lae%20sits%20adjacent%20to%20a,economic%20hub%20for%20the%20country. (accessed 5 November 2022).
- ³² Phil R. Cummins, Hadi Ghasemi, 'Not if, but when: unless Papua New Guinea prepares now, the next big earthquake could wreak havoc in Lae,'.
- ³³ Phil R. Cummins, Hadi Ghasemi, 'Not if, but when: unless Papua New Guinea prepares now, the next big earthquake could wreak havoc in Lae,'.
- ³⁴ Wafi-Golpu EIS, Chapter 18, Socioeconomic Impact Assessment, at 18-72, available at https://static1.squarespace.com/static/576cc5cb4402430e8c118af2/t/5b57cfcb6d2a738c48cb9cc9/15324816608 64/Chapter-18-sml.pdf (accessed 23 February 2022).
- 35 Wafi Golpu EIS, Chapter 6, available at:
- $\underline{https://static1.squarespace.com/static/576cc5cb4402430e8c118af2/t/5b5e5d58f950b7feeb84e474/15329112350}$ 78/Chapter-06-S.pdf at page 10/81
- 36 https://www.facebook.com/looppng/photos/a.1504820623079135/3482765511951293/
- ³⁷ Phil R. Cummins, Hadi Ghasemi, 'Not if, but when: unless Papua New Guinea prepares now, the next big earthquake could wreak havoc in Lae,'.
- ³⁸ Mining Watch Canada and Earthworks, *Troubled Waters: How mine waste dumping is poisoning our oceans*, rivers and lakes (2012) at 8, available at https://miningwatch.ca/sites/default/files/Troubled-Waters_Full.pdf
- (accessed 5 November 2022).

 39 Volcano Discovery, 'Latest quakes in or near Morobe Province, Papua New Guinea, in the past 30 days list, stats and map,' available at https://www.allquakes.com/region/22915/earthquakes/morobe-provincepast30days.html (accessed 17 October 2022).

⁴⁰ Facebook post by Dr Ralph Mana,

https://www.facebook.com/ralph.manat/posts/pfbid03xFnHGGUiYwEr7Wim3rCLDwpWfQetdhi3szpuDF1gPyQMn znAKG13yGMjNSv5gz9l
⁴¹ For example, see

https://static1.squarespace.com/static/576cc5cb4402430e8c118af2/t/59b8dabe4c326d96e36271c4/1505286894 820/02_Deep_Sea_Tailings_Placement.pdf

42 'About 40% of the tailings is predicted to disperse in the water column as subsurface plumes, while the

- remainder would deposit on the canyon floor at depths in excess of 2,000m.' See Appendix N, ii.
- 43 Wafi-Golpu Joint Venture, Tailings Management Facts, at 4,

https://static1.squarespace.com/static/576cc5cb4402430e8c118af2/t/5fa9e3d344651c560229c955/16049694421 43/201028+WGJV+Stakeholder+Letter+Key+Facts+Tailings+Management+DSTP++-+GENERIC.pdf

- 44 Wafi-Golpu Joint Venture, Tailings Management Facts, at 5,
- ⁴⁵ Wafi-Golpu Joint Venture, Tailings Management Facts, at 5
- ⁴⁶ Wafi-Golpu EIS, Appendix N, Assessment of Metal Bioaccumulation and Biomagnification from DSTP in the Huon Gulf, iii.
- ⁴⁷ Wafi-Golpu Joint Venture, Tailings Management Facts, at 5: 'Tailings from Wafi-Golpu DSTP will not affect the warm upper layer of the ocean that is biologically productive and used by local fisherman. The ocean in the Gulf has layers which do not mix with each other under any seasonal conditions. The warm layer containing most of the biological production ceases at 96 metres below the surface, well below the level at which local fishermen catch their fish.'
- ⁴⁸ His research profile, and list of academic papers, can be accessed at Researchgate, 'Ralph Reeves Mana,' https://www.researchgate.net/profile/Ralph-Mana
- ⁴⁹ Researchgate, 'Ralph Reeves Mana,' https://www.researchgate.net/profile/Ralph-Mana
- ⁵⁰ https://www.researchgate.net/publication/280699949_Patchiness_of_deep-

sea communities in Papua New Guinea and potential susceptibility to anthropogenic disturbances illustrat ed by seep organisms

- ⁵¹ https://www.facebook.com/looppng/photos/a.1504820623079135/3482765511951293/
- ⁵² 'Academic 'red flags' issuing of environmental permit', PNG Bulletin Online, 12 February 2021, available at https://thepngbulletin.com/news/academic-red-flags-issuing-of-environment-permit/
- 53 'Academic 'red flags' issuing of environmental permit'
- ⁵⁴ 'Scientist opposes deep sea tailings disposal,' the National, 4 September 2020, available at https://www.thenational.com.pg/scientist-opposes-deep-sea-tailings-proposal/
- ⁵⁵ 'Scientist opposes deep sea tailings disposal,'
- ⁵⁶ 'Scientist opposes deep sea tailings disposal,'
- ⁵⁷ 'Academic 'red flags' issuing of environmental permit'
- ⁵⁸ Loop PNG, 'Learn from Basamuk', Facebook post,

https://www.facebook.com/looppng/photos/a.1504820623079135/3482765511951293/ (accessed 8 November 2022)

- ⁵⁹ Loop PNG, 'Learn from Basamuk', Facebook post
- 60 Dr Ralph Mana, Facebook post,

https://www.facebook.com/ralph.manat/posts/pfbid03xFnHGGUiYwEr7Wim3rCLDwpWfQetdhi3szpuDF1gPyQMn znAKG13yGMjNSv5gz9l (accessed 8 November 2022)

- 61 Loop PNG, 'Learn from Basamuk', Facebook post
- 62 Loop PNG, 'Learn from Basamuk', Facebook post
- 63 'Academic 'red flags' issuing of environmental permit'
- 64 Wafi-Golpu EIS, Section 6, p. 6-7.
- 65 Paragraph 2, General Comment 36.
- 66 General Comment 36, [3].
- ⁶⁷ [7]
- 68 13 [7.2] https://www.escr-net.org/sites/default/files/caselaw/portillo_caceres_v_paraguay_english g1927913.pdf
- ⁶⁹ Ibid, Paragaph 2.
- ⁷⁰ See Inter-American Court of Human Rights, The Environment and Human Rights, Advisory Opinion OC-23/17 (Advisory Opinion OC-23/17), 15 November, 2017, para [60] and fn 95. ⁷¹ Advisory Opinion OC-23/17, 15 November 2017, para [136]

- ⁷² Advisory Opinion OC-23/17, 15 November 2017, para [60] and fn 95.

 ⁷³ Based on comments made by Professor Mana, 'Academic 'red flags' issuing of environmental permit', *PNG* Bulletin Online, 12 February 2021, available at https://thepngbulletin.com/news/academic-red-flags-issuing-ofenvironment-permit/
 74 Billy at [8.13]
- ⁷⁵ A/77/2990: Report of the Special Rapporteur on contemporary forms of racism, racial discrimination, xenophobia and related intolerance on ecological crisis climate justice and racial justice - Note by the Secretary-General, A/77/2990, 25 October 2022, at 12 [41] available at https://www.ohchr.org/en/documents/thematicreports/a772990-report-special-rapporteur-contemporary-forms-racism-racial (accessed 5 November 2022). 76 Ibid at 13 [45].
- ⁷⁷ Ibid. at 3 [1].
- 78 Ibid at 7 [19],

- ⁷⁹ Ibid at 21 [81].
- 80 Convention on the Rights of the Child, Article 6.
- 81 General Comment 36 on the right to life, at 13 [60].
- 82 OECD Guidelines Chapter IV Human Rights (5).
- 83 OECD Guidelines Chapter IV Human Rights, Commentary 45.
- ⁸⁴ See for example, Amnesty USA, 'Undermining rights: Forced Evictions and Police Brutality Around the Porgera Mine, Papua New Guinea,' available at https://www.amnestyusa.org/reports/undermining-rights-forced-evictions-and-police-brutality-around-the-porgera-gold-mine-papua-new-guinea/ (accessed 23 October 2022); 'Canada mining firm compensates Papua New Guinea women after alleged rapes,' *The Guardian*, 4 April 2015, available at https://www.theguardian.com/world/2015/apr/03/canada-barrick-gold-mining-compensates-papua-new-guinea-women-rape (accessed 23 October 2022).
- ⁸⁵ Luke Fletcher and Emmanuel Peni, The River Is Not Ours: The Frieda River Mine and the Threat to the Sepik (Sydney, Jubilee Australia Research Centre and Project Sepik, 2019): 18-19.
- ⁸⁶ This is concerning on a number of fronts, eg. 'PNG police partnership with mining company concerning: academic,' *Radio New Zealand*, 24 January 2020, available at
- https://www.rnz.co.nz/international/programmes/datelinepacific/audio/2018731002/png-police-partnership-with-mining-company-concerning-academic (accessed 23 October 2022).
- 87 Wafi Golpu EIS,18-118.
- 88 Ibid, 18-103, available at
- $\frac{https://static1.squarespace.com/static/576cc5cb4402430e8c118af2/t/5b57cfcb6d2a738c48cb9cc9/15324816608}{64/Chapter-18-sml.pdf} (accessed 23 February 2022).$
- 89 OECD Guidelines on Multinational Enterprises, at 46 [69].
- 90 OECD Guidelines at 42.
- ⁹¹ Earthworks and Mining Watch Canada (2012) Troubled Waters: How Mine Waste Dumping is Poisoning our Oceans, Rivers, and Lakes, https://earthworks.org/resources/troubled-waters/
- ⁹² Wafi-Golpu Joint Venture, Wafi-Golpu Project Environmental Impact Statement, Executive summary, at 28, available at
- https://static1.squarespace.com/static/576cc5cb4402430e8c118af2/t/5b57dc7788251bd877829020/1532486181309/ExecutiveSummary-English-sml.pdf
- ⁹³ Ellen Moore, 'Norway moratorium on mine waste dumping is welcome news but leaves fjords at risk', *Earthworks Blog*, available at: https://earthworks.org/blog/norway-moratorium-mine-waste-dumping-welcome-news-leaves-fjords-risk/ (accessed 8 November 2022).
- ⁹⁴ Similarly, dumping tailings waste into rivers in Australia is not permitted: 'Riverine, shallow submarine or deep submarine tailings placement methods... are not supported by the Australian regulatory environment or bathymetric conditions'; Australian Government, *Tailings Management: Leading Practice Sustainable Development Program for the Mining Industry* (September 2016) at 2, available at https://www.industry.gov.au/sites/default/files/2019-04/lpsdp-tailings-management-handbook-english.pdf (accessed 4 March 2022).
- ⁹⁵ Draft Guidelines for Deep Sea Tailings Placement, Draft General Guidelines and Criteria for mining operations in Papua New Guinea (PNG) involving Deep Sea Tailings Placement (DSTP), available at https://ramumine.files.wordpress.com/2010/09/10-draft-general-guidelines-final-2-complete.pdf (accessed 5 September 2022)
- ⁹⁶ OECD Guidelines on Multinational Enterprises, at 44 [60].
- ⁹⁷ ICMM, 'Newcrest Mining,' available at https://www.icmm.com/en-gb/our-story/our-members/company-members/newcrest (accessed 14 September 2022).
- 98 Wafi-Golpu Joint Venture, Wafi-Golpu Project, Tailings Management Facts, at 2,
- https://static1.squarespace.com/static/576cc5cb4402430e8c118af2/t/5fa9e3d344651c560229c955/1604969442143/201028+WGJV+Stakeholder+Letter+Key+Facts+Tailings+Management+DSTP++-+GENERIC.pdf
- ⁹⁹ See Wafi-Golpu Joint Venture, Wafi-Golpu Project, Tailings Management Facts at 2 3,
- https://static1.squarespace.com/static/576cc5cb4402430e8c118af2/t/5fa9e3d344651c560229c955/1604969442143/201028+WGJV+Stakeholder+Letter+Key+Facts+Tailings+Management+DSTP++-+GENERIC.pdf
- 100 Ellen Moore, 'Why Did a Norwegian Firm Ditch a Chinese Company Over What It's Doing in Papua New Guinea?', *Earthworks Blog*, https://earthworks.org/blog/why-did-a-norwegian-firm-ditch-a-chinese-company-over-what-its-doing-in-papua-new-guinea/ (accessed 8 November 2022); Earthworks, 'Norwegian Asset Manager Divests from Operator of Controversial Ramu Mine', Media Release, 12 May 2020, available at: https://earthworks.org/releases/norwegian-asset-manager-divests-from-operator-of-controversial-ramu-mine/ (accessed 8 November 2022).
- ¹⁰¹ IUCN, 'Protecting coastal and marine environments from mining waste' (WCC-2016-Res-053-EN), available at: https://portals.iucn.org/library/sites/library/files/resrecfiles/WCC-2016-RES-053-EN.pdf (accessed 8 November 2022).
- 102 Wafi-Golpu EIS, 6-42 [6.10], available at
- https://static1.squarespace.com/static/576cc5cb4402430e8c118af2/t/5b5e5d58f950b7feeb84e474/1532911235078/Chapter-06-S.pdf (accessed 27 October 2021).
- ¹⁰³ Wafi-Golpu Joint Venture, 'Deep Sea Tailings Placement (DSTP) in the Huon Gulf, Common Questions and Answers about the Marine Environment and Oceanographic Studies,' August 2018, at 8

https://static1.squarespace.com/static/576cc5cb4402430e8c118af2/t/5b8e2c3c352f53facc377c62/153604443090 2/0520 18 CC DSTP Brochure AUG2018Eng 150dpi.pdf (accessed 7 September 2022)

¹⁰⁴ Wafi Golpu EIS, Appendix N at ii.

105 'Scientist opposes deep sea tailings disposal,' The National, 4 September 2020, available at https://www.thenational.com.pg/scientist-opposes-deep-sea-tailings-proposal/

106 See for example, the following fact sheets: 'Mine tailings', available at https://www.wafigolpujv.com/publications

¹⁰⁷ The chemicals that are intended to be used for processing at the Watut Process Plant are: Alkyl aryl ester; Dialkyl thionocarbamate; Dithiophosphate – aqueous; Potassium Amyl Xanthate; Polyacrylamide, anionic; Sodium Metabisulphite and Calcium oxide. See Chapter 6. Project Description, at 6-28, available at https://static1.squarespace.com/static/576cc5cb4402430e8c118af2/t/5b5e5d58f950b7feeb84e474/15329112350 78/Chapter-06-S.pdf (accesed 13 June 2022).

108 Wafi-Golpu Joint Venture, 'Mine tailings,' Updated 13 September 2017, available at https://static1.squarespace.com/static/576cc5cb4402430e8c118af2/t/59b8d978e3df28bf0e287657/15052866120

37/01 Mine Tailings.pdf

109 Wafi-Golpu Joint Venture, Tailings Management Facts, at 5

https://static1.squarespace.com/static/576cc5cb4402430e8c118af2/t/5fa9e3d344651c560229c955/16049694421 43/201028+WGJV+Stakeholder+Letter+Key+Facts+Tailings+Management+DSTP++-+GENERIC.pdf

110 World Health Organisation, 'Arsenic,' updated 15 February 2018, available at https://www.who.int/newsroom/fact-

sheets/detail/arsenic#:~:text=The%20immediate%20symptoms%20of%20acute,and%20death%2C%20in%20ext reme%20cases. (accessed 14 October 2022).

111 World Health Organisation, 'Arsenic,'

¹¹² World Health Organisation, 'Arsenic'.

113 World Health Organisation, 'Arsenic,'.

114 Wafi-Golpu EIS, Appendix N at i.115 Wafi-Golpu EIS, Appendix N at i.

¹¹⁶ Wafi-Golpu EIS, Appendix N, at 40.

117 Bioaccumulation of Manganese and Its Toxicity in Feral Pigeons (Columba livia) Exposed to Manganese Oxide Dust (Mn₃O₄), available at

https://www.sciencedirect.com/science/article/abs/pii/S0013935198938646#:~:text=Exposure%20to%20high%20l evels%20of,O4have%20been%20reported.

- ¹¹⁸ Williams M, Todd GD, Roney N, et al. Toxicological Profile for Manganese. Atlanta (GA): Agency for Toxic Substances and Disease Registry (US); 2012 Sep. 3, HEALTH EFFECTS. Available from: https://www.ncbi.nlm.nih.gov/books/NBK158868/
- ¹¹⁹ US Environmental Protection Agency, 'Ambient Water Quality Criteria for Zinc,' 1980 https://www.epa.gov/sites/default/files/2018-12/documents/ambient-wqc-zinc.pdf ¹²⁰ Appendix N. at iv.
- ¹²¹ PNG Constitutional Law Reform Commission, Issues Paper 6, Review of Environmental and Mining Laws relating to Management and Disposal of Tailings, at 20.
- ¹²² PNG Constitutional Law Reform Commission, Issues Paper 6, at 71.
- ¹²³ PNG Constitutional Law Reform Commission, Issues Paper 6, at 71.
- 124 Dr Simon Judd, 'Out of sight; out of mind: marine mine waste disposal in Papua New Guinea,' Mineral Policy Institute, available at https://www.mpi.org.au/2015/08/out-of-sight-out-of-mind-marine-mine-waste-disposal-inpapua-new-guinea/ (accessed 15 September 2022).
- 125 Dr Simon Judd, 'Out of sight: out of mind: marine mine waste disposal in Papua New Guinea,' Mineral Policy Institute, available at https://www.mpi.org.au/2015/08/out-of-sight-out-of-mind-marine-mine-waste-disposal-inpapua-new-guinea/ (accessed 15 September 2022).
- 126 SAMS, "Independent Evaluation of Deep Sea Mine Tailings Placement (DSTP) in PNG: A Review and Evaluation of Marine Environmental Information on Deep Sea Tailings Placement with Particular Reference to Lihir and Misima Mines, Papua New Guinea," (Project Number: 8 ACP PNG.18-B/15; SAMS Research Services Limited, 2010) 15-16, cited in Papua New Guinea Constitutional and Law Reform Commission, Review of Environmental and Mining Laws Relating to Management and Disposal of Tailings, Issues Paper 6, February 2013, at 10.
- ¹²⁷ Bernhard Dold, 'Submarine Tailings Disposal (STD)—A Review,' (2014) 4 Minerals 642-666 at 649, doi:10.3390/min4030642
- 128 Hughes, D., Shimmield, T., Black, K. et al. Ecological impacts of large-scale disposal of mining waste in the deep sea. Sci Rep 5, 9985 (2015). https://doi.org/10.1038/srep09985, available at https://www.nature.com/articles/srep09985
- 129 Hughes, D., Shimmield, T., Black, K. et al. Ecological impacts of large-scale disposal of mining waste in the deep sea. Sci Rep 5, 9985 (2015). https://doi.org/10.1038/srep09985, available at https://www.nature.com/articles/srep09985

- 130 Wakang Awasa Lathou, For and on behalf of the coastal stakeholders of the Wafi-Golpu Mine, 'DSTP proposed for the Huon Gulf is problematic,' ActNow, 3 May 2021, available at https://actnowpng.org/blog/blogentry-dstp-proposed-huon-gulf-problematic%C2%A0 (accessed 7 September 2022).
- ¹³¹ See Wafi-Golpu Enviornmental Impact Statement, Chapter 18 Socioeconomic Impact Assessment, 18-1. ¹³² Wakang Awasa Lathou, For and on behalf of the coastal stakeholders of the Wafi-Golpu Mine, 'DSTP proposed for the Huon Gulf is problematic,' ActNow, 3 May 2021, available at https://actnowpng.org/blog/blog-
- entry-dstp-proposed-huon-gulf-problematic%C2%A0 (accessed 7 September 2022).

 133 'Academic 'red flags' issuing of environmental permit', *PNG Bulletin Online*, 12 February 2021, available at https://thepngbulletin.com/news/academic-red-flags-issuing-of-environment-permit/
- 134 https://www.thenational.com.pg/scientist-opposes-deep-sea-tailings-proposal/
- ¹³⁵ Draft Guidelines for Deep Sea Tailings Placement, at 2, available at
- https://ramumine.files.wordpress.com/2010/09/10-draft-general-guidelines-final-2-complete.pdf (accessed 7 September 2022).
- ¹³⁶ Draft Guidelines for Deep Sea Tailings Placement, at 3.1.1, (5), at 6, available at https://ramumine.files.wordpress.com/2010/09/10-draft-general-quidelines-final-2-complete.pdf (accessed 7 September 2022).
- ¹³⁷ Wafi-Golpu EIS, Appendix N at 13.
- ¹³⁸ https://actnowpng.org/blog/blog-entry-dstp-proposed-huon-gulf-problematic%C2%A0
- ¹³⁹ Jeff Kinch, A Socio-Economic Assessment of The Huon Coast Leatherback Turtle Nesting Project, <u>Labu Tale</u>, Busama, Lababia and Paiawa, Morobe Province, Papua New Guinea (July 2006) at 7, available at http://www.wpcouncil.org/wp-content/uploads/2013/03/Kinch-report_final.pdf
- 140 Wafi-Golpu EIS, Appendix S, Fisheries and Marine Resource Use Characterisation, at iv.
- ¹⁴¹ UN Declaration on the Rights of Indigenous Peoples, Article 32.
- ¹⁴² OECD Guidelines Chapter IV, Commentary 40.
- ¹⁴³ The OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector, 2017 p
- ¹⁴⁴ UN Declaration on the Rights of Indigenous Peoples, Article 32.
- ¹⁴⁵ OECD Guidelines Chapter IV. Commentary 38.
- ¹⁴⁶ Wafi-Golpu Project Environmental Impact Statement, Chapter 5, Section 5.4.2
- 147 ACT NOW!, Jubilee Australia and the Oakland Institute, From Extraction to Inclusion: Changing the Path to Development in Papua New Guinea, October 2020 at 54.
- ¹⁴⁸ Sections 10 and 3 respectively.
- ¹⁴⁹ Section 255.
- ¹⁵⁰ Constitutional Planning Committee Report 1974, Chapter 1 [16-19], Chapter 2 [106-112].
- http://www.paclii.org/pg/CPCReport/Cap1.htm
- 151 Maniwa v Malijiwi [2014] PGNC 25, [22, 23].
- 152 Maniwa v Malijiwi [2014] PGNC 25, [23].
- 153 Maniwa v Malijiwi [2014] PGNC 25, [22, 23].
- 154 Rimbunan Hijau (PNG) Ltd v Enei [2017] PGSC 36, [30]. 155 Rimbunan Hijau (PNG) Ltd v Enei [2017] PGSC 36, [27, 57].
- ¹⁵⁶ The OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector, 2017 at 96-97.
- ¹⁵⁷ UN-REDD Programme Guidelines on Free, Prior and Informed Consent, FAO UNDP UNEP January 2013, at
- ¹⁵⁸ For instance the Preamble to the Constitution states 'WE, THE PEOPLE OF PAPUA NEW GUINEA— · united in one nation · pay homage to the memory of our ancestors—the source of our strength and origin of our combined heritage · acknowledge the worthy customs and traditional wisdoms of our people'. Section 45(5) of the Constitutiuon recognises the 'right of religion' as also including 'a reference to the traditional religious beliefs and customs of the peoples of Papua New Guinea.'
- ¹⁵⁹ Estimates of the extent of PNG land under customary title vary between 95 and 97 per cent: From Extraction to Inclusion: Changing the Path to Development in Papua New Guinea, ACT NOW!, Jubilee Australia and the Oakland Institute, October 2020 at 59.
- ¹⁶⁰ For instance Section 53(4)(d) of the Constitution which recognises 'any taking of possession or acquisition [of land] that is in accordance with custom'.
- ¹⁶¹ WGJV, Correspondence to Jubilee Australia Research Centre, 22 April 2022.
- ¹⁶² 'OProposed sea tailing of waste opposed,' *The National*, 24 December 2018, available at
- https://www.thenational.com.pg/proposed-sea-tailing-of-mine-waste-opposed/ (accessed 9 June 2022).
- WGJV, Correspondence to Jubilee Australia Research Centre, 22 April 2022.
- ¹⁶⁵ Letter from the Wafi-Golpu Joint Venture to Charles Roche, Executive Director of the Mineral Policy Institute dated 19 April 2018 in response to a letter dated 20 March 2018 from Charles Roche to the parent companies of the WGJV.
- ¹⁶⁶ Wafi-Golpu Environmental Impact Statement 2018 Chapter 5, Section 5.1 p5-4
- ¹⁶⁷ Wafi-Golpu Project, Deep Sea Tailings Placement (DSTP) in the Huon Gulf Common Questions and Answers about the Marine Environment and Oceanographic Studies August 2018, at 2.

¹⁶⁸ Wafi-Golpu Project, Deep Sea Tailings Placement (DSTP) in the Huon Gulf Common Questions and Answers about the Marine Environment and Oceanographic Studies August 2018 at 4.

169 'Academic 'red flags' issuing of environmental permit'

- ¹⁷⁰ Letter from the Wafi-Golpu Joint Venture to Charles Roche, Executive Director of the Mineral Policy Institute dated 19 April 2018.in response to a letter dated 20 March 2018 from Charles Roche to the parent companies of the WGJV.
- ¹⁷¹ Feedback provided to CELCOR during community training workshops in May 2021.
- ¹⁷² Government Agencies, Landowners to Discuss Options of DSTP Disposal Methods, EMTV Online, 20 October 2020
- ¹⁷³ It was announced by the Papua New Guinea Prime Minister on 20 November 2020 that the Environmental Permit would be issued. An announcement stating that approval in principle would be granted was made via the press as early as 15 October 2020 (see *Permit Ready for Approval*, The National, 15 Oct 2020), five days before the meeting in Lae to discuss the project and DSTP with stakeholders.
- ¹⁷⁴ For instance see article *Wafi-Golpu Permit raises more concerns*, pnghausbung.com, 12 Feb 2021. Also *Environment Concerns Ignored*, EMTV Online, 9 Feb 2021.
- ¹⁷⁵ Letter from the Wafi-Golpu Joint Venture to Charles Roche, Executive Director of the Mineral Policy Institute dated 19 April 2018.in response to a letter dated 20 March 2018 from Charles Roche to the parent companies of the WGJV.
- ¹⁷⁶ Morobe Say No to Wafi/Golpu DSTP | Facebook
- 177 Court Last Resort EMTV Online 11 February 2021.
- ¹⁷⁸ Morobe Governor responds to granting of Environmental Permit for Wafi-Golpu emtv.com 9 Feb 2021
- ¹⁷⁹ David James, 'Wafi-Golpu JV explains its deep sea disposal plan', *Business Advantage PNG*, 9 February 2021, available at https://www.businessadvantagepng.com/mirror-has-two-faces-morobe-province-challenges-wafi-golpu/ (accessed 27 October 2021).