



EXECUTIVE SUMMARY

# A LINE IN THE SAND

INVESTIGATING BLACK SAND MINING IN FIJI



## BLACK SAND MINING PROJECTS IN FIJI

### Ba Ironsands Project

Location: Ba River Delta, Viti Levu.

Minerals: Iron ore

Project area: 120 km<sup>2</sup>

Project status: Underway. A Special Mining Lease was granted in 2012 and mining commenced in 2019.

Project life: At least 18 years and potentially up to 45 years

Company: Amex Resources Ltd, an Australian mineral resources development company founded in 1999, and based in West Perth. Amex Resources is a wholly-owned subsidiary of British Virgin Islands company Waratah International (Asia) Ltd.

Affected villages: Navonu, Natanuku, Votua; Natutu; Nakavika; Vatuvonu; Koroqaqa, and Vatutavui

### Sigatoka Ironsands Project

Location: Sigatoka river mouth and nearby onshore areas, including Kulukulu and Korua Island.

Minerals: Iron ore

Project area: 25km

Project status: Proposed. The project is currently in the exploration phase, with sonic drilling to identify resource deposits concluding in 2020. The project's Exploration Licence was renewed in 2019, expiring in 2022.

Project life: At least 10 years.

Company: Magma Mines Ltd, is a wholly owned Fijian subsidiary of Australian company, Dome Gold Mines Ltd. Dome Gold Mines Ltd is a public company limited by shares that was registered in July 2011 and ASX listed in 2013.

Affected villages: Kulukulu, Vunavutu, Nasama, Volivoli and Yadua

## EXECUTIVE SUMMARY

Fiji's largest island, Viti Levu, has recently become the site of the first ever black sand mining operation in Fiji, with another in the exploration phase. Black sand mining involves extracting magnetite or the iron ore content from mineral sands through the excavation of the sea floor, beaches or dunes. The process, which often involves extensive dredging of the sea or river floor, can result in devastating environmental impacts, including destruction of habitats for crustaceans, snails and corals, erosion and land subsidence, damages to mangroves and reduction of fish stocks. There is little analysis of the specific environmental impacts of black sand mining available, making it difficult to assess the long-term risks to ecosystems and livelihoods that may result from this kind of mining.

In Ba Province, on the north-west coast of Viti Levu, Australian company Amex Resources Ltd began dredging for magnetite at the mouth of the Ba River in 2019. This is the first black sand mining operation to commence in Fiji. While an exploration licence was granted to Amex Resources Ltd in 2009, and a mining lease in 2012, community members reported they were only made aware of the Environmental Impact Assessment (EIA) in 2017. Community members have also stated that they did not know that mining was to commence, and believed that agreement had been given for exploration only.

While the project is at an early stage, it comes with significant environmental risks and residents of villages surrounding the project are already reporting some early signs of environmental damage. Reports that the company is seeking to expand its mining operations further inland have compounded concerns of local residents who rely on the area's crabs, fish and mangrove resources for their livelihoods.

On the south coast of Viti Levu, the Sigatoka River is also under threat from a black sand mining proposal by Magma Mines Ltd, a Fijian subsidiary of the Australian mining company Dome Gold Mines. The proposal is located near the Sigatoka Sand Dunes, which have been tentatively listed for World Heritage Status. At the date of publication, the project is in its exploration phase, with sonic drilling in 2017 confirming the existence of iron sand deposits. While an EIA was conducted in 2014, the company's plans appear to have evolved with the discovery of new mineral deposits in the area, leaving many environmental questions unanswered. Communities within and nearby the exploration area have voiced their strong opposition to the project, raising concerns about the impacts on their livelihoods, their environment, and on future generations.

There are serious questions about Free, Prior and Informed Consent in each project and a lack of a clear social licence to operate. Evidence from large-scale dredging and onshore sand mining operations overseas highlights the complexity of the possible ecosystem impacts from this work, many of which are still only partly understood. An approach of 'mine first, pay later' could see coastal communities in the project areas losing access to environmental and cultural resources for generations to come.

## POTENTIAL IMPACTS OF BLACK SAND MINING

Black sand mining involves extracting iron ore from mineral sands by excavating the sea floor, beaches or dunes. Environmental impacts vary depending on the scale, location and nature of the project, but studies suggest they can include

### ONSHORE



INCREASED COASTAL EROSION



LAND SUBSIDENCE LEADING TO FLOODING



ANIMAL HABITAT DISTURBANCE



PLANT HABITAT DISTURBANCE



FLOODING AT HIGH TIDES

### OFFSHORE



DAMAGE TO RIVER OR OCEAN FLOOR



NOISE POLLUTION IMPACTING UNDERWATER LIFE



RELEASE OF TOXIC MATERIALS



CHANGES TO WAVE HEIGHT AND DIRECTION



CHANGES TO TIDAL CONDITIONS

### Jubilee Australia, Caritas Fiji and Fiji Council of Social Services therefore recommend:

- Further development of the black sand mining operations at Ba and Sigatoka should be halted until each community has been fully informed about the project, including potential environmental impacts, and has given Free, Prior and Informed Consent to the project. This should include widespread consent from members across the community, particularly women.
- No mining license should be approved at Sigatoka until a new Environmental Impact Assessment has been carried out that assesses the impacts based on the intended project scope as outlined in the company's recent announcements.
- In Ba, a similar environmental assessment is needed to establish the extent of siltation and fish and crab reduction reported by community members, potential erosion risks, and how the project may impact on the community's resilience to future extreme weather events and flash flooding.
- Free, Prior and Informed Consent (FPIC) is essential to the wellbeing and resilience of communities in the face of climate change, as it enables them to manage their land and resources to mitigate negative impacts and protect resources for future generations. Any future proposed black sand mining project should be subject to stringent environmental assessment, mitigation and monitoring and should not proceed without the FPIC of all affected communities.



## WHO IS ME?

I am the Mist that covers the Land,  
The Rain that falls like a caressing hand  
Between mountains of gold the river I ran  
Black and Beauty I am the Sand.

Forest so green with Flowers delight  
Trees I give the Air of Life  
Rock and steady true with might  
The Shark that rides the Ocean's stride.

Is it a Myth or a Mystery  
From the Sky on high to the bottom of the Sea  
All of Creation is connected within  
MY Identity.....the Indigenous Me.

**TEVITA NAIKASOWALU**

HUMAN, ECOLOGICAL AND INDIGENOUS RIGHTS DEFENDER, FIJI

## DOWNLOAD THE FULL REPORT

This project took place as a partnership between Jubilee Australia Research Centre and Macquarie University's PACE program along with Caritas Fiji and Fiji Council of Social Services.

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You can download it here: <https://www.jubileeaustralia.org/resources/reports>