

Deep Sea Mining - What is it all about?

FACT SHEET 1

OVERVIEW

Canadian mining company Nautilus Minerals Inc. (Nautilus) is set to embark on the unprecedented extraction of metals from the sea floor. The mining project, known as the Solwara 1 project, will extract gold and copper from the floor of the Bismarck Sea in Papua New Guinea. It is the first of a potentially large number of deep sea mining projects within the wider Pacific Region.

The focus of deep sea mining (DSM) is the deposits laid down over thousands of years around underwater hot springs, or hydrothermal vents. Nautilus has secured or is in the process of applying for the exploration rights to 534,000 km² of the sea floor in PNG, Tonga, the Solomon Islands, Fiji and New Zealand. In addition, many other companies are waiting to see how Nautilus fares before taking the plunge themselves. **Mining Exploration licenses now cover over 1 million square kilometres of Pacific sea floor.**

Very little is understood about the possible impacts of each individual deep sea mine let alone the cumulative impacts of these many proposed projects. The only thing that is certain is that impacts will be associated with each step of the deep sea mining process.



PACIFIC WOMEN ON THE STREETS AT THE INTERNATIONAL RIO+20 CONFERENCE IN BRAZIL ACTIVELY PROMOTING THE NO EXPERIMENTAL SEABED MINING MESSAGE. SOURCE: [PNG MINE WATCH](http://PNG.MINE.WATCH)

SPECIFIC CONCERNS

We know very little about deep sea ecosystems

Hydrothermal vents are like hot springs sitting more than 1.5 km under water on the ocean floor. For thousands of years they have spewing out a sulphidic ash rich in minerals. These have formed huge mounds around the vents. And this is what the mining companies are after.

Conditions around the vents are unlike anywhere else on the planet - and this has resulted in unique ecosystems. At these depths the barometric pressure is very high, the mineral chemistry results in high acidity and very hot water from the vents mixes with very cold sea water from the sea bottom.

We are just barely starting to understand deep sea ecosystems. Some scientists believe that hydrothermal vents are where life first started on earth. If so, these environments and these ecosystems could provide insights into the evolution of life. This means that in the Pacific many species could become extinct before they have even been identified.

Mining deep seabeds will impact the ecosystems and local communities

Deep Sea Mining will result in direct and indirect impacts. Each mining operation would directly destroy thousands of amazing hydrothermal vent formations and their unique ecosystems.

The destruction of vents alone would provide sufficient reason to not approve DSM projects. But there are many other risks such as the potential toxicity of metals that will be released into the ocean water. Studies and modelling are required that show what metals will be released, what chemical forms they will be present in, the extent to which they will find their way into the food chain, how contaminated the seafood eaten by local communities be and what effects these metals will have on fisheries of local, national and regional importance.

No project should go ahead until it can be proven that local communities and marine species will not be poisoned.

The Precautionary Principle

The precautionary principle states that if a development has a risk of causing harm to the public or to the environment, the burden of proof that it is not harmful falls on the developers (ie: mining companies and Governments).

The principle implies that there is a social responsibility to protect the public from exposure to harm.

In some legal systems, as in the law of the European Union, the application of the precautionary principle has been made a statutory requirement.

Deep Sea Mining - What you can do

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The South Pacific Commission is fast tracking the development of regulatory frameworks to enable deep sea mining – before communities throughout the Pacific have provided their informed consent. The call to stop sea bed mining is growing with a petition calling for Pacific governments to stop experimental seabed mining.

Pacific women also recently promoted the ‘stop experimental seabed mining’ message at the international Rio+20 conference in Brazil. While in New Zealand communities have come together to campaign against the mining of their black sands.

You can contribute to the truly sustainable development of the Pacific. Join these voices by:

RAISING AWARENESS

Raise the awareness of your congregations about the risks of deep sea mining in the Pacific.

HOLDING YOUR GOVERNMENTS ACCOUNTABLE

Hold your governments accountable, ask them how they will guarantee the safety of communities and marine environments

GETTING INFORMED

Deep Sea Mining Campaign

<http://www.deepseaminingoutofourdepth.org>

Join Deep Sea Mining Campaign e-updates

email natalie.lowrey@gmail.com to join the elist for updates on the campaign

Download the Deep Sea Mining campaign report *Out of Our Depth: Mining the Ocean Floor in Papua New Guinea*

<http://deepseaminingoutofourdepth.org/report>

Download the Professor Richard Steiner's Independent Review on Solwara 1

<http://deepseaminingoutofourdepth.org/resources>

Watch Community Testimonies

<http://deepseaminingoutofourdepth.org/community-testimonies>

Learn about the Precautionary Principle

http://en.wikipedia.org/wiki/Precautionary_principle

DEEP SEA MINING CAMPAIGN

(affiliate of Friends of the Earth Australia)

Web: <http://deepseaminingoutofourdepth.org>

Facebook: <http://facebook.com/deepseaminingpacific>

Twitter: <http://twitter.com/NoDeepSeaMining>

Youtube: <http://youtube.com/StopDeepSeaMining>

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