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World's first deep sea mining proposal ignores consequences of its impacts on oceans

SINGAPORE, September 29, 2015 | As the deep sea mining industry chases investors at the [Asia Pacific Deep Sea Mining Summit](#), a new critique by the [Deep Sea Mining Campaign](#) reveals indefensible flaws in the [Environmental and Social Benchmarking Analysis](#) of the Solwara 1 project commissioned by Nautilus Minerals. The proposed Solwara 1 deep sea mine, situated in the Bismarck Sea of Papua New Guinea, is the world's first to receive an operating licence.

Endorsed by a coalition of economists, scientists and civil society groups, the critique entitled [Accountability Zero](#), will be launched by Professor Richard Steiner during his presentation at the Summit today.

“By using metrics that bear no relevance to deep sea and marine environments, the Solwara 1 ESBA values at zero the ecosystem goods and services provided by deep sea and marine ecosystems.” said Francis Grey, Founder of [Economists at Large](#) and co-author of *Accountability Zero*. He continued, “Fundamentally, the ESBA report fails to meet the well accepted requirements of a cost-benefit analysis. It is of little value to public policy and deep sea mining (DSM) decision-making.”

US based consultancy firm Earth Economics (EE), which Nautilus commissioned to write the report, compared the social and environmental impacts of the Solwara 1 deep sea mining project to existing and proposed land-based copper mines.

“Comparing the impacts of Solwara 1 to selectively chosen land-based mines is like comparing apples to oranges,” said Payal Sampat, Mining Program Director of [Earthworks](#). She continued, “Nautilus commissioned a study that purports to make a case for seabed mining – but which neglects to value marine ecosystem services, or consider the likely impacts on sea water quality, marine ecosystems, or communities who depend on healthy oceans.”

The Solwara 1 deep sea mining project has been met with local and international opposition, including three independent science-based reports that detail deficiencies in the science and modelling employed by Nautilus.¹

“The ESBA is not fit for its intended purpose. It fails to provide a framework to assist decisions about the advisability of Solwara 1 or of any other deep sea mining project. Indeed, the use of the ESBA for decision-making purposes would lead to very poor public policy outcomes. The risk of unexpected costs and losses due to unpredicted environmental and social impacts is high and could leave coastal and island

¹ Steiner, R (2009) *Independent Review of the Environmental Impact Statement for the proposed Nautilus Minerals Solwara 1 Seabed Mining Project, Papua New Guinea*, Bismarck-Solomon Indigenous Peoples Council, <http://www.deepseaminingoutofourdepth.org/wp-content/uploads/Steiner-Independent-review-DSM1.pdf>;

Rosenbaum, H (2011) *Out of Our Depth: Mining the Ocean Floor in Papua New Guinea*, MiningWatch Canada, CELCOR PNG and Oxfam Australia, <http://www.deepseaminingoutofourdepth.org/wp-content/uploads/Out-Of-Our-Depth-low-res1.pdf>;

Luick, J (2012) *Physical Oceanographic Assessment of the Nautilus Environmental Impact Statement for the Solwara 1 Project*, <http://www.deepseaminingoutofourdepth.org/wp-content/uploads/EIS-Review-FINAL-low-res.pdf>

communities carrying the brunt of the burden into the long term,” said Dr. Helen Rosenbaum, Coordinator of the [Deep Sea Mining Campaign](#) and co-author of the *Accountability Zero* critique.

Granted a 20 year mining licence in January 2011, Nautilus is yet to release the environmental management plan for Solwara 1.

“The time for public relation exercises such as the Solwara 1 ESBA is over. Investors, civil society, and governments looking at the world’s first deep sea mine need to see real substance. The release of the Solwara 1 Environmental Management Plan would be a good step,” said Professor Richard Steiner of [Oasis Earth](#). He continued, “It is critical that this foundation document be subject to independent examination and feedback in the public domain.”

For more information:

Professor Richard Steiner (Singapore), richard.g.steiner@gmail.com +1 907 360 4503

Dr. Helen Rosenbaum (Australia), hrose@vic.chariot.net.au +61 413 201 793

Francis Grey (Australia), francis@ecolarge.com +61 406 429 758

Payal Sampat (US), psampat@earthworksaction.org +1 202-247-1180

Dr. Catherine Coumans (Canada), catherine@miningwatch.ca +1 613-569-3439

BACKGROUND:

Key failings of the ESBA highlighted in the critique include:

- The use of natural assets, ecosystem services, and values that describe terrestrial environments, but bear no relevance to deep sea and marine environments. By *comparing apples to oranges*, it is hardly surprising (but meaningless) that Solwara 1 is rated as having a lower impact than selected land-based mines on groundwater and fresh water quality, air quality, pollination, soil formation and retention, recreational activities such as hiking and bicycling, and loss of agricultural land;
- A failure to account for the social, cultural, and economic values of oceans – in spite of the fact that for surrounding coastal communities, the Bismarck Sea underpins local culture and provides sources of food and livelihood opportunities;
- A failure to account for the cumulative impacts over time of the rolling series of deep sea mines that Nautilus intends to operate in the Bismarck Sea. It is misleading of the ESBA to suggest that social and environmental impacts will be confined to the 11 ha Solwara 1 mine alone;
- A questionable comparison with selected terrestrial mines that fails to build a picture of the natural assets and ecosystem services associated with the Solwara 1 site. Not only are terrestrial and marine ecosystems extremely different, but while much is known about the impacts of mines on land, there is no equivalent information for the marine environment, as no deep sea mine has yet been developed;
- An incomplete analysis that rests entirely on copper production and omits gold production. Completely ignoring an analysis of gold in the ESBA is not consistent with sound economic analysis and creates an impression that the ESBA has been conducted in a selective manner so as to favour Solwara 1.

[**The Deep Sea Mining \(DSM\) Campaign**](#) is an association of NGOs and citizens from the Pacific, Australia, Canada and the US concerned about the likely impacts of DSM on marine and coastal ecosystems and human communities.

[**Economists at Large**](#) are a team of economists working to create a sustainable economy, society and environment. Contact:

[**Earthworks**](#) is a US-based nonprofit organization dedicated to protecting communities and the environment from the adverse impacts of mineral and energy development while promoting sustainable solutions.

[**MiningWatch Canada \(MiningWatch\)**](#) is a pan-Canadian initiative supported by environmental, social justice, Aboriginal and labour organisations from across Canada. Contact:

[**Oasis Earth**](#) is a marine conservation consulting organization based in Anchorage, Alaska, providing technical advisory services regarding ocean conservation issues to governments, industry, NGOs, and civil society around the world.