

### To who it may concern

The expert team of SVQ Association was contacted by the government of Madang Province in Papua New Guinea to accomplish the EIA of the operational activity of Ramu Nickel Mine (an open cut lateritic mine, located at Kurukumbari Mountain Range, and the HPAL refining plant in Basamuk Bay), in May, 2019. The team under my lead was contracted to make an expertise of the environmental impacts resulted from the activities of the plants, belonging to MCC, China and Conic Metals Corp, Canada.

As a mining and petroleum geologist and a multi-year experienced specialist in development of environmental technologies in the above fields, I have found the case extremely alarming. By the moment of my first on-site investigation, it had already been publicly announced about the heavy accidental tailings spill, occurred in April 6, 2019. As a result of the latter, along with the accidental spills in August and September 2019, the government of PNG imposed a fishing ban for the local population of Madang Province due to the risk of poisoning with heavy metals, including arsenic and sulphur acid. Not to forget the fact that fishing is considered to be the main income and nutrition source for the local population!

In the course of the expertise, which was executed in four steps (May to December 2019), I have provided the PNG government with the EIA report, which, as stated officially before, had not been finalized due to the missing extension of the job contract.

In the course of the various press-conferences, held by the local authorities with my attendance, the local media was informed about the main data, obtained during EIA process.

The most important findings concern a) the large-scale deforestation of the ecologically valuable rainforest in the Kurukumbari Mountain Range without reforestation, which leads to sedimentation of eroded soil substrates in the valley-located Kurukumbari River, b) the impacts of the DSTP (released from the refinery in Basamuk Bay), composed by toxic heavy metals which remain partially in suspension in the form of fine particles in the water, and which are carried by the sea currents over large areas, including the islands of the archipelago, and (c) the considerable air pollution from the exhaust chimneys of the refinery in Basamuk Bay where sulphur acid is produced in high quantities by imported sulphur.

As affirmed in front of the local representatives of the villages, located in the impacted areas, the further target after finalization of the EIA report was expected a) to be the remediation works in the area, including marine and terrestrial parts, b) the upgrade of the drinking water quality in the villages, c) the implementation of an alternative solution for DSTP, and c) the possible upgrade of the mining process for ecologically-friendly mining execution, all with the integration of an expanded and experienced team of specialists from different European regions.

Unfortunately, we have not been contacted by the PNG authorities to take actions in regards of the above-mentioned processes and we are not knowledgeable about the current status of the Ramu NiCo case.

If to speak about DSTP as a separate negative phenomenon, resulting from the mining industry, it is absolutely definite that the disposed tailings will have a drastic, non-reversible impact on the ecosystems, marine life and humankind health in totality.

The mining industry continues to develop, becoming more expanded, due to the evident need in larger volumes of raw resources. Unfortunately, it simultaneously means the risk increase of DSTP, following the common philosophy of the leading titans in this sector. For example, if to refer to the lately published statement of Harita Group of 27 June 2020, the Company claims that the alternative

to DSTP, namely retaining tailings in dams and the recycling of the waste, is not feasible because of the earthquake risk in the planned mining areas. They refer to the Brumadinho dam disaster in Brazil, occurred on 25 January 2019. However, this dam did not break because of an earthquake, but because of sloppy monitoring by the QI company commissioned to do so. The comparison is therefore misleading.

Based on the experience and knowledge of my network of renowned specialists from different European Universities in the field, it is necessary to emphasize the fact that there are alternative solutions for DSTP, by meaning it is quite possible to build such dams even in earthquake-prone zones. Today, modern construction engineering makes it possible to build tunnels and complex bridges, even for high-speed trains, and also to construct daring high-rise buildings in earthquake-prone zones. It is primarily a question of ethical attitudes towards ecology and sustainability, and secondarily a question of costs, which account for only a modest percentage of the large net profit made by mining companies.

At the same time, we cannot neglect the mining sector or reduce its importance for the world industry, currently boosted by the enormous demand for primary raw materials. In this case, our SVQ team and I fully support the statement of Mr. Musk of 22 July 2020, in which he stresses on the acute demand for nickel [e.g.] mining but in an environmentally sensitive way. I would say that the final target should be an environmental-sustainable mining, in best case scenario monitored on an ongoing basis by an independent team of correspondent experts and implemented in the form of a critical, but justifiably constructive cooperation with mining companies, local authorities and indigenous population. As far as in the recent period the society has been deeply concerned about such things like certified Bio-Organic alimentary products, we believe that it is more than a must to be aware of a sustainable mining.

August 11, 2020

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