To Norges Bank

05.11.2024

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Recommendation to exclude South32 Ltd from the Government Pension Fund Global

Summary

The Council on Ethics recommends the exclusion of South32 Ltd from investment by the Norwegian Government Pension Fund Global (GPFG) due to an unacceptable risk that the company contributes to severe environmental damage. The Council's recommendation is based on South32 Ltd's participation in the joint venture Mineração Rio do Norte (MRN), which operates a bauxite mine in the Amazon rainforest.

South32 Ltd is a diversified metals and mining company. The company runs operations in Australia, Africa, South America, the Netherlands, UK and Singapore. South32 Ltd is listed on the Australian stock exchange, and at the end of June, 2024, GPFG owned 1.78 per cent of the company's shares, worth approximately NOK 2 billion.

MRN is a joint venture between South32 Ltd (33 per cent), Glencore (45 per cent) and Rio Tinto (22 per cent). In accordance with previous recommendations, the Council assumes that all participants in a joint venture are responsible for its business activities.

MRN has operated the bauxite mine in the Saracá-Taquera National Forest in the Brazilian Amazon since the late 1970s and is planning to expand the mine with effect from 2026. The new project will occupy an additional 100 km^2 and an area of 64 km^2 will be completely deforested during the project's lifespan. The new mine area is located in currently intact rainforest.

Knowledge about biodiversity and the importance of nature conservation and ecosystem services has significantly increased since the 1970s The Council on Ethics refers to the Global Assessment Report published by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and the Kunming-Montreal Global Biodiversity Framework, which both conclude that halting the loss of biodiversity is crucial.

At the same time, there is an ongoing and drastic decline in biodiversity globally. The Amazon rainforest is the largest on Earth and harbours more than a tenth of the world's biodiversity. Due to its vast size, it plays an important role in climate regulation, both regionally and globally. The rainforest is under enormous pressure from legal and illegal business activities, and from climate change. Brazil is responsible for the majority of the deforestation in the Amazon, with an estimated loss of 700,000 km^2 in the period to 2018.

The Council attaches importance to the fact that MRN's expansion of the mine will result in the deforestation and degradation of intact areas of the Amazon, with consequent adverse impacts on biodiversity, including both discovered and undiscovered species.

The Council notes that MRN uses the mitigation hiearchy developed by the International Finance Corporation (IFC), and has made decisions that will, to some extent, reduce the scale of its land use. However, the Council also notes

that the company's proposed measures do not materially alter the fact that expansion of the mine will result in the clearance of substantial tracts of intact tropical rainforest in an area of globally significant environmental value.

The Council on Ethics concludes that the Fund's investments in companies that contribute to deforestation and degradation of intact rainforest located in part of an ecosystem of crucial importance to the conservation of a significant share of the world’s biodiversity, must be considered to contravene the ethical guidelines.

Contents

1 Introduction

The Council on Ethics for the Norwegian Government Pension Fund Global (GPFG) has assessed the Fund's investment in South32 Ltd[1] against the Guidelines for Observation and Exclusion of Companies from the Government Pension Fund Global (the ethical guidelines).[2]

South32 Ltd is a diversified metals and mining company.[3] The company explores, mines, processes, transports, and markets a range of commodities including bauxite, alumina, aluminum, copper, energy and metallurgical coal, manganese, nickel, silver, lead, and zinc. South32 Ltd's head office is in Perth, Australia. The company runs operations in Australia, Africa, South America, the Netherlands, UK and Singapore. The company is listed on the Australian stock exchange, and by the end of June, 2024, GPFG owned 1.78 per cent of the company's shares, worth NOK 2 billion.[4]

1.1 What the Council on Ethics has considered

The Council on Ethics has assessed the GPFG's investement in South32 Ltd against the environment criterion of the Ethical guidelines. The Council on Ethics' assessment is based on South32 Ltd's 33 per cent share in the joint venture Mineração Rio do Norte (MRN). MRN is the operator of a bauxite mine located in intact rainforest in the Amazon.

When assessing cases relating to severe environmental damage, the Council normally attaches importance to whether the damage is extensive, whether it causes irreversible or long-lasting harm, whether national laws or international norms have been breached, and what the company has done to prevent or rectify the damage. Finally, the Council assesses the company's practices continuing in the future.

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[1] Issuer ID: 41848797

[2] Guidelines for Observation and Exclusion of Companies from the Government Pension Fund Global. Adopted by the Ministry of Finance on 18 December 2014, https://lovdata.no/dokument/INS/forskrift/2014-12-18-1793?q=retningslinjer+++pensjonsfond+++utland

[3] South32 Ltd webpage, https://www.south32.net/

[4] Government Pension Fund Global's investments, https://www.nbim.no/no/oljefondet/investeringene/#/2024/investments/equities/285/South32%20Ltd

In previous assessments relating to deforestation and/or the degradation of tropical forests, the Council has attached importance to the size of the deforested areas and whether the proposed activities will contribute to loss of important biodiversity and adversely impact on endangered species and their habitats.[5]

The Intergovernmental Panel for Biodiversity and Ecosystem Services (IPBES) reports on a significant decrease in biodiversity globally.[6] As much as 25 per cent of all known species are considered as threatened with extinction by the International Union for the Conservation of Nature (IUCN). Nine out of ten of these species are threatened by changes in land use. With a "*business as usual*" scenario, the loss of biodiversity is expected to accelerate in the coming years.

The Kunming-Montreal Global Biodiversity Framework (KMGBF)[7] was signed by the States Parties to the Convention on Biological Diversity (CBD) [8] in December 2022. The KMGBF is often referred to as the "*Paris Agreement for nature*" and is expected to change how the global community works together to conserve nature.

In this recommendation, the Council places particular emphasis on the KMGBF's target of reducing the loss of areas of particular importance to biodiversity, including ecosystems of high ecological integrity, to practically zero by 2030.[9] The Council also attaches importance to the KMGBF's expectation that businesses and financial institutions will contribute to reducing nature loss.[10]

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[5] See, for example, the Council's recommendation to exclude the companies PT Astra PT Astra International Tbk, Jardine Matheson Holdings Ltd and Jardine Cycle & Carriage Ltd (2023), https://etikkradet.no/pt-astra-international-tbk/ and Halcyon Agri Corp (2018): https://etikkradet.no/halcyon-agri-corp-ltd/

[6] Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) (2019), "*Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*." E. S. Brondizio, J. Settele, S. Díaz, and H. T. Ngo (editors). IPBES secretariat, Bonn, Germany. 1148 pages, https://doi.org/10.5281/zenodo.3831673.

[7] Kunming-Montreal Global Biodiversity Framework, CBD/COP/15/L.25, 18 December 2022, https://www.cbd.int/doc/c/e6d3/cd1d/daf663719a03902a9b116c34/cop-15-l-25-en.pdf.

[8] The Convention on Biological Diversity (CBD), https://www.cbd.int/convention/

[9] Kunming-Montreal Global Biodiversity Framework ,Target 1.

[10] Kunming-Montreal Global Biodiversity Framework ,Target 15.

1.2 Traditional communities affected by MRNs activities

Both traditional Quilombo communities[11] and Riberhino communities live in the areas surrounding and overlapping MRN's concession. These communities are highly dependent on ecosystem services from the rainforest.[12] The Council is aware of regular reports of MRN's mining operations having a negative impact on the livelihood of these traditional communities and the places where they live.[13] However, these have not been assessed in any further detail by the Council.

1.3 Sources

The Council's assessment is based on publicly available scientific papers and assessment reports, MRN's environmental impact assessments and information from numerous experts on tropical forest ecology, rehabilitation, restoration ecology and conservation biology. The company has also provided information about the project, which is presented in Chapter 4.

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[11] Andrade, L. (2011) "*Quilombola lands in Oriximiná: pressure and threats*." São Paulo Pro-Indian Commission, https://cpisp.org.br/wp-content/uploads/2019/03/Quilombola_Lands.pdf.

[12] Christian Aid (2022) "*Profit before people and planet: How economic policies and corporate profit maximisation perpetuate the unsustainable exploitation of the Brazilian Amazon and its people*" page 9, https://www.christianaid.org.uk/sites/default/files/2022-12/profit-before-people-and-planet.pdf.

[13] See for example *Mongabay* (Desember 13, 2023) "*Brazil's largest bauxite producer denies rights to riverside dwellers in Pará*", https://brasil.mongabay.com/2023/12/maior-produtora-de-bauxita-do-brasil-nega-direitos-a-ribeirinhos-no-para/ or *Mongabay* (June 4, 2020) "*MRN bauxite mine leaves legacy of pollution, poverty in Brazilian Amazon*", https://news.mongabay.com/2020/06/mrn-bauxite-mine-leaves-legacy-of-pollution-poverty-in-brazilian-amazon/.

2 Background

2.1 Mineração Rio do Norte (MRN)

Mineração Rio do Norte (MRN) is a joint venture between Glencore PLC (45 per cent)[14], South32 Ltd (33 per cent)[15] and Rio Tinto (22 per cent)[16]. Rio Tinto increased its holding in the company from 12 per cent to 22 per cent in 2023.

MRN is is responsible for about 40 per cent of Brazil's total bauxite production,[17] with an annual output of 12 million tonnes.[18] MRN's bauxite mine is located in that part of the Amazon designated the Saracá-Taquera National Forest (STNF), in the western part of the Brazilian state of Pará.[19]

The Saracá-Taquera National Forest (STNF) covers approximately 441,300 hectares (4,413 km^2). It is classified as a «*Floresta nacionais*», a protected area where sustainable use of natural resources is permitted. Bauxite has been excavated from the eastern plateaus since the late 1970s. MRN currently occupies 4.2 per cent (186 km^2) of the STNF.[20] The project is expected to occupy approximately 100 km^2, and the expansion of the mine will the require clearing of approximately 64 km^2 of intact, old-growth rainforest.[21]

2.2 The importance of the Amazon rainforest for biodiversity conservation and climate regulation

Intact rainforest is deemed irreplaceable for conservation of biodiversity.[22] A substantial part of global biodiversity is concentrated in relatively few areas, and

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[14] Glencore PLC has been excluded from the Government Pension Fund Global since 2020 based on the coal criterion.

[15] The Council has submitted a corresponding recommendation for Rio Tinto.

[16] MRN website, https://www.mrn.com.br/index.php/en/who-we-are.

[17] Mineração Rio do Norte – MRN (2022), "Estudo de Impacto Ambiental (EIA) , Volume I" p. 120. https://mrn.com.br/index.php/pt/projeto-novas-minas.

[18] MRN website, https://mrn.com.br/index.php/pt/o-que-fazemos.

[19] MRN website, https://www.mrn.com.br/index.php/pt/.

[20] South32 Ltd letter to the Council on Ethics (27 July, 2024).

[21] Mineração Rio do Norte – MRN (2021), "*Estudo de Impacto Ambiental (EIA), Volume I*" p.114, https://mrn.com.br/index.php/pt/projeto-novas-minas.

[22] Watson, J.E.M., Evans, T., Venter, O. et al. (2018) "*The exceptional value of intact forest ecosystems*" i Nature Ecology & Evolution Volume 2, pages 599–610, https://doi.org/10.1038/s41559-018-0490-x.

tropical forests are overrepresented among these.[23,24] The Amazon rainforest is among the five areas designated as «*High-Biodiversity Wilderness Areas (HBWA*)».[25,26] HBWAs are vast areas of continuous, undisturbed nature that are particularly important for conservation of biodiversity. HBWA are also among the few places where indigenous people can sustain a traditional lifestyle.

In 2021, the Science Panel for the Amazon (SPA) published what is currently the most extensive scientific assessment relating to the Amazon rainforest.[27] The report shows that the Amazon rainforest harbours more than 10 per cent of global biodiversity, but that only a fraction of the species are known (scientifically described). There is also limited knowledge about the ecology and distribution for many of the species inhabiting the rainforest.[28] Because the area's biodiversity has not been adequately surveyed, the number of endangered species is likely to be considerably underestimated. The report highlights the

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[23] Mittermeier, Russell A., et al. (1998) "*Biodiversity hotspots and major tropical wilderness areas: approaches to setting conservation priorities*." Conservation biology, Volume 12 (3), pages 516-520, https://conbio.onlinelibrary.wiley.com/doi/pdf/10.1046/j.1523-1739.1998.012003516.x.

[24] Ometto, J.P., K. Kalaba, G.Z. Anshari, N. Chacón, A. Farrell, S.A. Halim, H. Neufeldt, and R. Sukumar, 2022: Cross- Chapter Paper 7: Tropical Forests. In: Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 2369–2410, doi:10.1017/9781009325844.024.

[25] Mittermeier, R. A., Mittermeier, C. G., Brooks, T. M., Pilgrim, J. D., Konstant, W. R., Da Fonseca, G. A., & Kormos, C. (2003). *Wilderness and biodiversity conservation*. Proceedings of the National Academy of Sciences, 100(18), pages 10309-10313, https://www.pnas.org/doi/full/10.1073/pnas.1732458100.

[26] For a general description of HBWAs, see also, https://www.worldheritagesite.org/connection/High-Biodiversity+Wilderness+Area.

[27] Science Panel for the Amazon (2021) "*Amazon Assessment Report 2021*" C. Nobre, A. Encalada, E. Anderson et al. (editors). United Nations Sustainable Development Solutions Network, New York, USA. Accessible from, https://www.theamazonwewant.org/amazon-assessment-report-2021/.

[28] Science Panel for the Amazon (2021) Amazon Assessment Report, Chapter 3 "*Biological diversity and ecological networks in the Amazon.*" Page 4, https://www.theamazonwewant.org/wp-content/uploads/2022/06/Chapter-3-Bound-May-9.pdf.

need to survey biodiversity in the region, and stresses the importance of using DNA-based methods to map invisible species diversity (i.e. cryptic species).[29]

Vast tropical rainforests like the Amazon rainforest play a critical role in climate regulation regionally and globally.[30] The Amazon rainforest also plays an important role in the global carbon cycle, with an estimated 150-200 billion tonnes of carbon stored in the soil and vegetation.[31]

The Amazon region has been subject to intensive deforestation for many years, however there are significant differences between countries. [32] Brazil is responsible for the majority of the deforestation, with an estimated loss of more than 700,000km^2 of forest in the period to 2018. The combined effect of climate change and deforestation will increase the probablility that the system may reach and exceed an ecological tipping point, where the parts of the rainforest transition into drier and more savannah like conditions.[33] It is estimated that this will occur when approximately 40 per cent of the region has become denuded of forest cover. This could result in extended dry seasons and more forest fires, which would accelerate additional forest loss and release of more Carbon dioxide into the atmosphere. A recently published study shows that close to 50

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[29] Cryptic species are species that look very similar but are reproductively isolated. A large number of cryptic species are expected to inhabit the Amazon rainforest. See, for example, Funk, W. C., Caminer, M., & Ron, S. R. (2012). *High levels of cryptic species diversity uncovered in Amazonian frogs.* Proceedings of the Royal Society B: Biological Sciences, 279(1734), pp. 1806–1814, https://royalsocietypublishing.org/doi/abs/10.1098/rspb.2011.1653.

[30] Ometto, J.P., K. Kalaba, G.Z. Anshari, N. Chacón, A. Farrell, S.A. Halim, H. Neufeldt, and R. Sukumar, 2022: Cross- Chapter Paper 7: Tropical Forests. In: Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 2369–2410, doi:10.1017/9781009325844.024.

[31] Science Panel for the Amazon (2021). "*Executive Summary of the Amazon Assessment Report 2021*."C. Nobre, A. Encalada, E. Anderson et al. (eds.) United Nations Sustainable Development Solutions Network, New York,. page 13, https://www.theamazonwewant.org/wp-content/uploads/2022/06/220717-SPA-Executive-Summary-2021-EN.pdf.

[32] Science Panel for the Amazon (2021) Amazon Assessment Report, Chapter 19 "Drivers and ecological impacts of deforestation" Page 5, https://www.theamazonwewant.org/wp-content/uploads/2022/05/Chapter-19-Bound-May-11.pdf

[33]See footnote 30, Ometto et al. (2022), page 2380, doi:10.1017/9781009325844.024..

per cent of the Amazon rainforest may reach a tipping point by 2050, as a consequence of deforestation, climate change and drought.[34] These patterns are already clearly visible in the southern parts of the Amazon, which is often referred to as the "*Arc of Deforestation*".

2.3 Bauxite mining

Aluminum is produced from aluminium oxide, which is refined from bauxite.[35] Bauxite is primarily found in tropical and sub-tropical areas, where it occurs in a relatively thin layer some meters beneath the surface (typically between 0 and 20 metres).[36]

The bauxite layer is typically between 4 and 6 metres thick, but may reach a thickness of up to 40 metres. To excavate the bauxite, the topsoil is completely removed. In many cases, this topsoil is then used for post-mining environmental restoration. The largest bauxite deposits are in Guinea and Australia, while Vietnam, Brazil and Jamaica also have significant deposits. In addition, bauxite is found in Greece, France, Hungary, Romania and Italy.

Bauxite mining has significant environmental impacts because it affects relatively large areas of land, the mining is open cast, and all vegetation and soil layers above the bauxite are removed.[37] Furthermore, many of the most substantial bauxite deposits overlap with areas of high conservation value, such as tropical or subtropical forest lands. Mining may also result in deforestation outside the actual mining concessions. A study of mining in the Brazilian Amazon found that

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[34] Flores, B.M., Montoya, E., Sakschewski, B. et al. (2024) "*Critical transitions in the Amazon forest system*" Nature volume 626, pages 555–564, https://doi.org/10.1038/s41586-023-06970-0.

[35] Norsk Hydro, accessible from: https://www.hydro.com/no-NO/aluminium/om-aluminium/slik-lages-aluminium/

[36] Georgitzikis K., Mancini L., d'Elia E., Vidal-Legaz B. (2021) *Sustainability aspects of Bauxite and Aluminium — Climate change, Environmental, Socio-Economic and Circular Economy considerations,* EUR 30760 EN, Publications Office of the European Union, Luxembourg, ISBN 978-92-76-40039-4, doi:10.2760/702356, JRC125390, https://rmis.jrc.ec.europa.eu/uploads/library/jrc125390_sustainability_profile_bauxite__aluminium_online.pdf.

[37] Georgitzikis K., Mancini L., d'Elia E., Vidal-Legaz B. (2021) *Sustainability aspects of Bauxite and Aluminium — Climate change, Environmental, Socio-Economic and Circular Economy considerations,* EUR 30760 EN, Publications Office of the European Union, Luxembourg, ISBN 978-92-76-40039-4, doi:10.2760/702356, JRC125390, https://rmis.jrc.ec.europa.eu/uploads/library/jrc125390_sustainability_profile_bauxite__aluminium_online.pdf.

the construction of roads and other associated infrastructure resulted in indirect deforestation as far as 70 km from the mine itself.[38]

2.4 Tropical forest rehabilitation after mining

The rehabilitation of tropical forest ecosystems can take many decades, with a success rate and timeframe depending on the extent and severity of the impact, the rehabilitation methods utilised, and the ecological functions that are being rehabilitated. [39]

Rehabilitation following extensive degradation will take longer than rehabiliatation following more minor interventions. The more intense the degradation an area has suffered, the more complex will be the rehabilitation process, since land use may have a permanent impact on seed banks, as well as the composition and distribution of nutrients in the soil.[40] Open cast mining is classified as intense land use in this context, because the upper soil layers are completely removed.

Ecosystem function such as nitrogen fixation, may be fully rehabilitated after 30 years, whereas species diversity (the number of species in a certain area) takes longer and species composition (the composition of species inhabiting a certain area) may take hundreds of years to return to what it was. Even with advanced methods for forest rehabilitation, undisturbed and intact forests still comprise of higher levels of biodiversity than degraded and rehabilitated forest.[41,42,43] In the

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[38] Sonter, L.J., Herrera, D., Barrett, D.J. et al. (2017) "*Mining drives extensive deforestation in the Brazilian Amazon*" Nature Communications volume 8, p. 1013, https://doi.org/10.1038/s41467-017-00557-w.

[39] Lourens Poorter et al. (2021) "*Multidimensional tropical forest recovery*" Science volume 374, sider 1370-1376, https://www.science.org/doi/10.1126/science.abh3629.

[40] Parrotta, John A., Oliver Henry Knowles, and Joseph M. Wunderle Jr (1997) "*Development of floristic diversity in 10-year-old restoration forests on a bauxite mined site in Amazonia.*" Forest Ecology and Management volume 99, pp. 21–42, https://www.sciencedirect.com/science/article/pii/S0378112797001928.

[41] Gibson, L., Lee, T., Koh, L. et al. (2011) *"Primary forests are irreplaceable for sustaining tropical biodiversity*." Nature volume 478, pages 378–38. https://doi.org/10.1038/nature10425.

[42] Moura, Nárgila G., et al. (2013) "*Avian biodiversity in multiple-use landscapes of the Brazilian Amazon.*" Biological Conservation volume 167, pages 339-348, https://www.sciencedirect.com/science/article/pii/S0006320713002978.

[43] Atkinson, J., Brudvig, L.A., Mallen-Cooper, M., Nakagawa, S., Moles, A.T. & Bonser, S.P. (2022) "*Terrestrial ecosystem restoration increases biodiversity and reduces its variability, but not to reference levels: A global meta-analysis*." Ecology Letters, volume 25, pages 1725–1737, https://doi.org/10.1111/ele.14025.

majority of cases, and for a very long time, the ecology of restored tropical forests will necessarily differ from its original state.[44]

Before MRN began mining, the rainforest in the company's concession area was relatively inaccessible and had remained undisturbed for at least 200–300 years.[45] The forest comprised dense tropical rainforest, with a rich biodiversity. MRN uses a bank of seeds and seedlings from local rainforest species when rehabilitating an area after the bauxite has been removed. The rehabilitation of the exhausted bauxite plateau starts with a layer of top soil being replaces, and then a variety of species are replanted using the banks of seed and seedlings.

3 The Council on Ethics' findings

3.1 Projeto Novas Minas (PNM)

Through the Projeto Novas Minas (PNM) project, MRN is planning to expand its mining activities with the addition of five new plateaus with effect from 2026: Escalante, Rebolado, Jamari, Cruz Alta Leste og Barone (the central plateaus, shown in pink, figure 1).[46] A dedicated mining zone of 1,420 km^2 has been set aside within STNF (see figure 2).[47] This corresponds to 33 per cent of the total protected area.

The mining zone includes existing mines (yellow), the planned expansion (pink), and areas referred to *as Minas Futuras* or future mines (light brown).

According to the Environmental Impact Assessment (EIA) of PNM, the project will make use of existing infrastructure such as port, trainline and roads.[48] In addition, the project will require the development of new infrastructure, both temporary and permanent. These include housing for workers, administration

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[44] Chazdon, R.L.(2013) "*Making tropical succession and landscape reforestation successful*." Journal of Sustainable Forestry volume 32(7), pp. 649–658, https://www.tandfonline.com/doi/full/10.1080/10549811.2013.817340.

[45] Parrotta, John A., and Oliver H. Knowles. (2001) "*Restoring tropical forests on lands mined for bauxite: examples from the Brazilian Amazon*." Ecological Engineering volume 17, pp. 219–239, https://www.sciencedirect.com/science/article/pii/S0925857400001415.

[46] MRN website, Projeto Novas Minas: https://mrn.com.br/index.php/pt/projeto-novas-minas.

[47] Andrade, L. (2011) "*Quilombola lands in Oriximiná: pressure and threats*." São Paulo Pro-Indian Commission. https://cpisp.org.br/wp-content/uploads/2019/03/Quilombola_Lands.pdf.

[48] PNM information leaflet, https://mrn.com.br/images/Cartilha%20PNM-MRN%20(1).pdf.

buildings and other support infrastructure, as well as roads that will provide access to the new plateaus and connect them with the existing infrastructure.[49] Bauxite will be transported from the new plateaus to existing *ore-crushing facilities* at the Monte Branco and Aviso plateaus (see figure 1).

[49] Mineração Rio do Norte – MRN (2021), "*Estudo de Impacto Ambiental (EIA), Volume I*" page 112, https://mrn.com.br/index.php/pt/projeto-novas-minas.

Figure 1

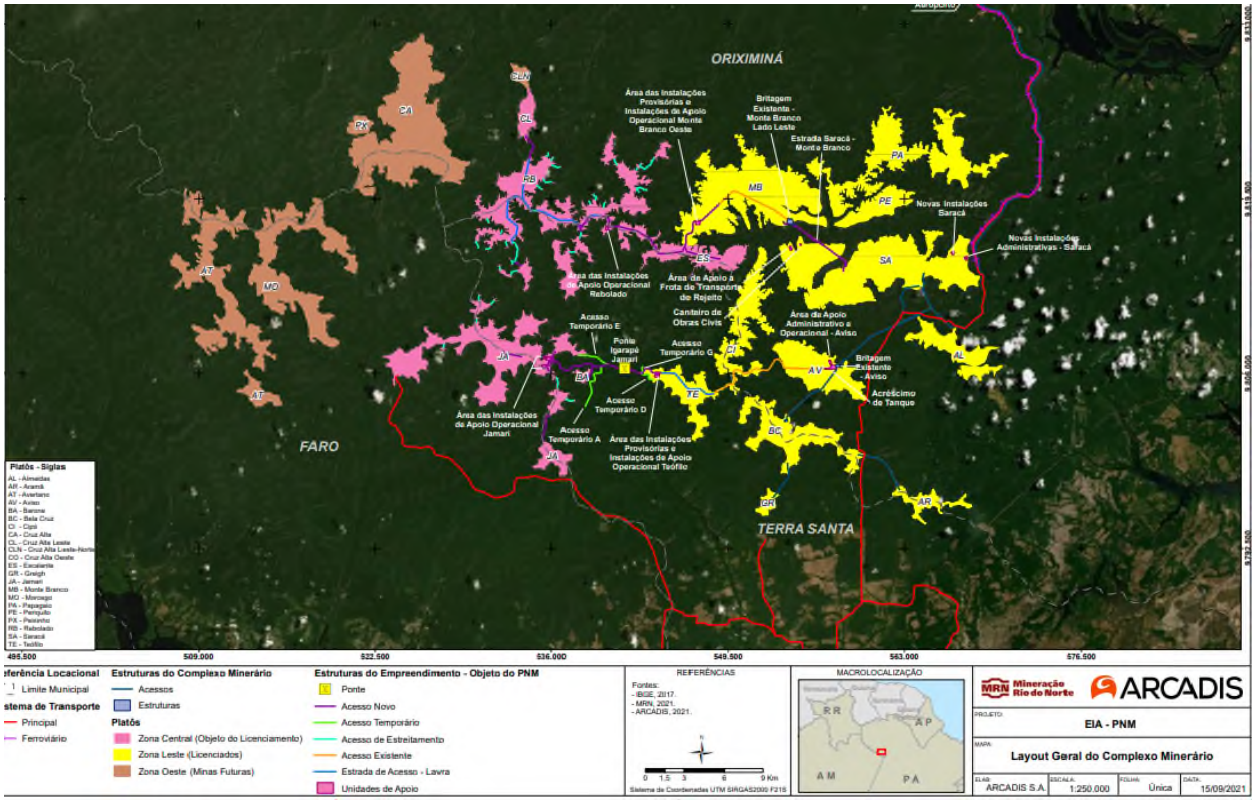

Fig. 1 shows MRN's concession in the STNF in Pará in Brazil. The already existing mining plateaus are shown in yellow, whereas the proposed PNM plateaus are shown in pink. The light brown plateaus are referred to as future mines. The figure is taken from MRN EIA Volume I, page 113.[50]

[50] Mineração Rio do Norte – MRN (2021), "*Estudo de Impacto Ambiental (EIA), Volume II*" page 113, https://mrn.com.br/index.php/pt/projeto-novas-minas.

Figure 2

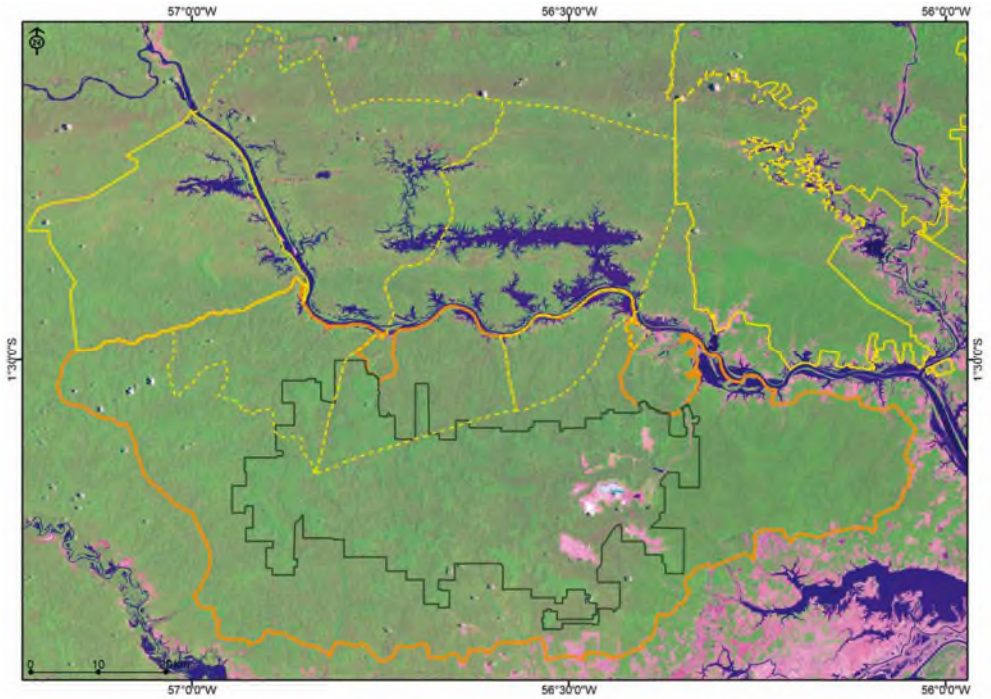

Fig. 2 shows the «mining zone» (dark green line) in STNF (the border of the park is drawn in orange). The figure is taken from the report «Quilombola Lands in Oriximiná: Pressure and Threats»[51]

3.2 Environmental damage

MRN's concession comprises intact tropical rainforest. It is estimated that the new mine and infrastructure will cover an area of approximately 100 km^2.[52] Of this, aååroximately 64 km^2 of rainforest will be entirely cleared of rainforest during its lifespan. It is, however, likely that the total area affected by the project will be substantially larger than the proposed 100 km^2 dedicated to mining and infrastructure. Indirect deforestation from mining in the Amazon has been shown to occur as far as 70 km beyond the borders of mining concessions.[53]

Biodiversity studies conducted by MRN in connection with the PNM EIA documented 1,241species of trees, shrubs and epiphytes (plants living on other

[51]Andrade, L. (2011) "Quilombola lands in Oriximiná: pressure and threats."São Paulo Pro-Indian Commission, https://cpisp.org.br/wpcontent/uploads/2019/03/Quilombola_Lands.pdf.

[52] Mineração Rio do Norte – MRN (2022), "*Estudo de Impacto Ambiental (EIA), Volume I*". Accessible from: https://mrn.com.br/index.php/pt/projeto-novas-minas.

[53] Sonter, L.J., Herrera, D., Barrett, D.J. et al. (2017) "*Mining drives extensive deforestation in the Brazilian Amazon*" Nature Communications volume 8, page 1013. https://doi.org/10.1038/s41467-017-00557-w.

plants) in the concession area.[54] Several of these species are listed as threatened by the International Union for the Conservation of Nature (IUCN). The studies also found a rich diversity of reptiles, amphibians, mammals and birds, including threatened species such as the harpy eagle (*Harpia harpyja*)[55], crested eagle (*Morphnus guianensis*)[56], red-faced spider monkey (*Ateles paniscus*)[57], oncilla (*Leopardus tigrinus*)[58], giant anteater (*Myrmecophaga tridactyla*)[59] and giant armadillo (*Priodontes maximus*).[60]

Opening up areas of continuous and intact rainforest will lead to substantial ecological changes, not only on the deforested plateaus but also in the surrounding forest. According to the EIA, the deforestation will negatively impact a range of forest species such as for example ants, amphibians and several species of birds and primates. The complex habitats and microhabitats that are characteristic for old-growth rainforest will change significantly through the loss of large, old trees, changes in light conditions and soil structure. This, in turn, will alter the diversity and composition of plants, microorganisms, and animals in the soil, the undergrowth and in the canopy. The edges of the forest bordering the clearings will also be affected as species adapted to the altered ecological conditions take over, for example. Important rainforest species such as various

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[54]Mineração Rio do Norte – MRN (2022), "*Estudo de Impacto Ambiental (EIA), Volume II*" page 1001. https://mrn.com.br/index.php/pt/projeto-novas-minas.

[55] BirdLife International. 2021. *Harpia harpyja*. The IUCN Red List of Threatened Species 2021: e.T22695998A197957213. https://dx.doi.org/10.2305/IUCN.UK.2021-3.RLTS.T22695998A197957213.en. Accessed on 30 October 2024.

[56] BirdLife International. 2017. *Morphnus guianensis*. The IUCN Red List of Threatened Species 2017: e.T22695991A118209977. https://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T22695991A118209977.en. Accessed on 30 October 2024.

[57] Mittermeier, R.A., Boubli, J.P., Urbani, B., Régis, T. and de Melo, F.R. 2021. *Ateles paniscus* (amended version of 2019 assessment). The IUCN Red List of Threatened Species 2021: e.T2283A191691902. https://dx.doi.org/10.2305/IUCN.UK.2021-1.RLTS.T2283A191691902.en.

[58] Payan, E. and de Oliveira, T. 2016. *Leopardus tigrinus*. The IUCN Red List of Threatened Species 2016: e.T54012637A50653881. https://dx.doi.org/10.2305/IUCN.UK.2016-2.RLTS.T54012637A50653881.en. Accessed on 30 October 2024.

[59] Miranda, F., Bertassoni, A. and Abba, A.M. 2014. *Myrmecophaga tridactyla*. The IUCN Red List of Threatened Species 2014: e.T14224A47441961. https://dx.doi.org/10.2305/IUCN.UK.2014-1.RLTS.T14224A47441961.en. Accessed on 30 October 2024.

[60] Anacleto, T.C.S., Miranda, F., Medri, I., Cuellar, E., Abba, A.M. and Superina, M. 2014. *Priodontes maximus.* The IUCN Red List of Threatened Species 2014: e.T18144A47442343. https://dx.doi.org/10.2305/IUCN.UK.2014-1.RLTS.T18144A47442343.en. Accessed on 30 October 2024.

species of opossums and rodents are adapted to a life in continous rainforest. These animals typically have restricted distribution, because of poor dispersal abilities. [61] They therefore have limited ability to move between forest fragments. As a consequence, deforestation, fragmentation and degradation puts such species in a more precarious situation, with local extinction as the most severe consequence.

4 Information from the company

The Council on Ethics has been in contact with South32 Ltd regarding the MRN mine since 2023. A meeting with South32 Ltd has been held and company has also responded to a draft recommendation on exclusion from GPFG.

In respect to its responsibility for MRN's operations, South32 states that "*MRN and Alumar are non-operated joint ventures in which we hold an interest, but that are managed independently of South32. As such, they operate under their own governance frameworks as established under their respective joint venture agreements*."[62] South32 Ltd is represented in MRN's «Board of Directors» and «Sustainability Committee». South32 increased its share in MRN with 18.2 per cent in May 2022, and is currently the second largest owner with 33 per cent.[63]

Regarding the size of the area that will be impacted by Projeto Novas Minas, South32 Ltd states that "*MRN occupies around 18,600 hectares (4.2%) of the STNF. To the north of the STNF lies the Rio Trombetas Biological Reserve (407,000 hectares). At its western and north-western borders, the STNF is flanked by 12 million hectares of continuous native forest. This is of relevance when considering the STNF's biodiversity conservation potential." MRN anticipates that an additional 6,446 hectares (~1.5% of the STNF) will be cleared over the life of the project, including for purposes of infrastructure construction.*"

In addition "*The New Mines Project will impact two Quilombola communities: Boa Vista and Alto Trombetas 2. Open community consultation on the New Mines Project is being undertaken, not only to meet licensing requirements and assist in the*

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[61] Rodrigues, A.C., et al. (2020) "*Nonvolant Small Mammal (Rodentia and Didelphimorphia) Assemblages Structure in Areas Under Mining Impact in the Brazilian Amazon*." Tropical Conservation Science volume 13, https://journals.sagepub.com/doi/full/10.1177/1940082920914884.

[62] South32 Ltd letter to the Council on Ethics (27 July 2023),

[63] South32 Ltd webpage, https://www.south32.net/docs/default-source/annual-reporting-suite/2022/sustainable-development-report-2022.pdf?sfvrsn=c351fe82_3

formulation of licensing conditions, but to also ensure that community and other stakeholder feedback relating to the project is considered."

The company admits that their activities necessarily do have environmental consequences, but they attempt to minimize such consequences.[64] South32 states that the goal is to achieve "no net loss for biodiversity" for all new projects and for expansions of alreadey existing ones, and to use the mitigation hierachy (International Finance Corporation, IFC's mitigation hiearchy)[65] during project planning. However, since MRN is the operator of PNM, South32s states that the "no net loss" strategy does not directly apply to MRNs activities and that while biodiversity certainly was part of the board discussions, MRN is not bound by South32 Ltd's biodiversity strategy.[66]

5 The Council on Ethics' assessment

The Council on Ethics has assessed the Government Pension Fund Global's investment in South32 Ltd against the environment criterion of the ethical guidelines. The basis for the assessment is South32 Ltd's shareholding in the joint venture MRN and this latter's bauxite mining activities in the Amazon rainforest. Although South32 Ltd is not the operator of the mine and is a minority shareholder in MRN, it is the established opinion of the Council that all partners in a joint venture are responsible for its business activities.

The basis for the Council on Ethics assessment is a planned expansion of MRN's mine, which will lead to deforestation and the opening of subtantial areas of continous, intact rainforest.

In its assessment, the Council attached importance to the fact that the Amazon rainforest is among the most important areas for biodiveristy globally. At the same time, the rainforest and the ecosystem services it provides, are under extreme threat from deforestation and climate change.

The Council highlights the fact that both the IPBES global assessment report and the KMGBF conclude that it is crucial to halt the loss of biodiversity. In the Council's view, this means in practice that companies must, in some cases and in

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[64] South32 Ltd webpage, https://www.south32.net/sustainability/environment/biodiversity

[65] The IFC PS-6 mitigation hierarchy provides guidance on how economic development projects can limit their adverse impacts on biodiversity. The hierarchy comprises four steps that must be undertaken sequentially – avoid harm, minimise harm, repair harm and implement offsets (compensation measures). Offsets must be used as a last resort. See Performance Standards (ifc.org)

[66] South32 Ltd in meeting with the Council on Ethics (21 September, 2023).

particular areas, refrain from activities that could damage important biodiversity and ecological functions.

The expansion of MRN's mine is legal. Nevertheless, the Council on Ethics attaches importance to the fact that since MRN began mining in the late 1970s, one has gained more extensive knowledge about biodiversity in general, the increasingly critical situation for a vast number of species and ecosystems, as well as how people are dependent on nature and ecosystem services.

The Council also points out that a range of scientific studies have documented the increasing cumulative pressure from various industries on the Amazonian rainforest. The Council attaches importance to the fact that the effects of deforestation and degradation in the Amazon region referred to as the *Arc of Deforestation* contribute to a high risk of irreversible changes there. The Council on Ethics therefore concludes that companies should not participate in activities that affect intact parts of the Amazon rainforest.

The Council notes that MRN uses the IFC mitigation hiearchy, and has made decisions that will, to some extent, reduce the scale of its land use. However, the Council also notes that the company's proposed measures do not materially alter the fact that expansion of the mine will result in the clearance of substantial tracts of intact tropical rainforest in an area of globally significant environmental value.

The Council presumes that MRN is doing what it can to rehabilitate the deforested areas. However, it is the opinion of the Council that while rehabilitation can be a positive initiative in already degraded areas, it will not be not be a sufficient measure to mitigate the damage caused by the clearing of intact rainforest. It will take many decades before the forest and associated ecosystems comprise of similar properties as the original old-growth rainforest, if that is at all possible. It is therefore the opinion of the Council that the prospect of rehabilitation should not be used to justify interventions in intact areas comprising important ecological functions.

For PNM, the central plateaus of the concession will be excavated. The Council notes that the concession's western plateaus are referred to as future mines ("*Minas futuras*") in the environmental impact assessment. The Council therefore considers there to be a significant risk that the mine will be expanded even further.

The Council on Ethics concludes that the Fund's investments in companies that contribute to deforestation and degradation of intact rainforest located in part of an ecosystem of crucial importance to the conservation of a significant share of the world's biodiversity, must be considered to contravene the ethical guidelines.

6 Recommendation

The Council on Ethics recommends that South32 Ltd be excluded from the Norwegian Government Pension Fund Global.

*

Siv Helen Rygh Torstensen, Acting Chair	Cecilie Hellestveit	Vigdis Vandvik	Egil Matsen
(Sign.)	(Sign.)	(Sign.)	(Sign.)