



SIMANDOU PROJECT: RISKS AND IMPACTS ON BIODIVERSITY



Guinea's exceptional biological diversity is under increasing threat from human activities, including major mining projects such as the Simandou project. This alert summarizes the risks and impacts of the project on biodiversity, and proposes effective prevention and mitigation measures to protect ecosystems.

THE SIMANDOU PROJECT AT A GLANCE

Nestled in the forested mountains of Guinea in West Africa lies what is reportedly the world's biggest untapped high-grade iron ore deposit. One of the continent's most ambitious combined mining and infrastructure projects, the Simandou project covers a total area of 1,500 square kilometers where ore will be extracted, processed and then transported 650 kilometers along a rail line cutting through the country's endangered species habitats, agricultural lands and protected areas before finally arriving at a new deepwater port in local fishery areas for export.

Coveted by international mining companies for decades, today's project proponents include two consortiums: Australian mining giant Rio Tinto with Chinese aluminum producer Chinalco (Simfer) and China's largest aluminum producer, Hongqiao with a Singapore-based entity Winning (Winning Consortium Simandou or WCS). News reports indicate China's largest steel maker, Baowu, is in talks with both consortia. Construction has started on the rail line and port – estimated to cost USD 13 billion to build – held by the two consortia and the Guinean government, and on the WCS blocks. Rio Tinto is in the process of updating its studies in order to start construction.

THE SIMANDOU PROJECT'S CLIMATE CHANGE IMPACTS

The Republic of Guinea enjoys exceptional biological diversity, with an ecosystem rich in savannahs, dense wet and dry forests, mangroves and wetlands. The country is home to 3,062 plant species and 4,931 animal species, according to the national monograph published in 1997.

The state of its biodiversity presents a diversified ecosystem. The main groups are terrestrial, cool water, coastal, aquatic, island and built-up ecosystems. The surface area of its network of protected areas, comprising protected areas, large classified forests, mangroves, major wetlands, rainforests, gallery forests, dry forests and savannahs, makes up 15% of the national territory, while freshwater ecosystems make up 1,161 watercourses in 23 river basins, 14 of which are international. ([National Biodiversity Strategy, 2016](#)).

Furthermore, Guinea has the largest residual chimpanzee population in West Africa with an estimated population of 17,700 individuals according to a study by Regnault & Boesch carried out in 2012. (Ham, 1998; Kormos et al. 2003, Köhl et al. 2017).

In 2016, the West African chimpanzee was classified as "critically endangered" on the IUCN Red List of Threatened Species.

The classified forests of Ziama and Diécké in southern Guinea are home to rare species such as dwarf hippopotamuses, panthers and elephants ([Stratégie nationale sur la diversité biologique, 2016](#)).

An endangered biodiversity and under pressure

The direct and indirect impacts of human activities, whether artisanal or industrial, are exerting strong pressure on biodiversity in Guinea.

Forest resources, land and dense dry forest are declining by 17% every 15 years. Dense rainforest, meanwhile, has shrunk from 14 million hectares in 1967 to just 700,000 ha in 2002. ([National Biodiversity Strategy, 2016](#)).

Many biological species are at risk in Guinea, according to the national monograph on biological diversity. It notes in particular among which are plants, bony fish, reptiles, amphibians, mammals and insects. (Monographie nationale sur la diversité biologique, Bah et al.1997)

THE STATE OF BIODIVERSITY IN THE SPECIFIC AREA OF THE SIMANDOU PROJECT

The state of biodiversity in the specific area of the Simandou project

Studies carried out by the Guinean government and experts from environmental and biodiversity protection organizations have shown that the entire Simandou mine area (blocks 1, 2, 3 and 4) contains important threatened or endemic species of invertebrates, amphibians, reptiles, birds and mammals (Monographie nationale sur la diversité biologique, Bah et al.1997)

- Forty (40) threatened plant species and at least one endemic species are found in the project area according to a study by Couch & al. experts (2018).
- The Outumba-Kilimi-Kuru Hills-Pinselli-Soya transboundary landscape (OKKPS, covering an area of 7,500 km²) includes buffer zones and forest corridors that are important for climate resilience in Guinea and Sierra Leone and for the protection of remaining natural habitats that can support the conservation of several animal species, including nine primate species.

- According to the study by Couch & al (2018), four (4) endangered primate species exist in the Simandou mining area, including the Diana monkey (*Cercopithecus diana*, EN), the royal colobus (*Colobus polykomos*, EN), the sooty mangabey (*Cercopithecus atys*, VU) and the West African chimpanzee (*Pan troglodytes Verus*, CR).
- The WCS ESIA report reveals that the Kounounkan forest located in the sub-prefecture of Moussaya, (Forécariah Prefecture), covering an area of 5,347 hectares that does not include the mountainous part, is home to the largest number of plant species recorded in the ESIA and represents one of the 15 richest plant communities in the country, home to 31 threatened plant species and eight endemic plant species present only in the Kounounkan massif (WCS ESIA, 2020).
- The important fauna of the mining part of Simandou blocks 1 and 2, made up of primates (Chimpanzees and monkeys) and other species living along the "Goeing" Mount Simandou in the local language, is experiencing a progressive disappearance (observed rarity), reported by communities in the Damaro sub-prefecture during field survey missions carried out by certain national NGOs.
- In Senguelen, where the port is located, the mangrove swamp has been deforested to make way for port facilities, leading to the displacement of fish species and the shrinking of the floodplain, which is a resting and breeding ground for fish and shellfish.

CURRENT IMPACTS OF THE PROJECT ON BIODIVERSITY

The Simandou project is still in the construction phase. Iron ore extraction is scheduled to begin in 2024, according to the basic agreement. However, current findings at the various sites, particularly in blocks 1 and 2 of the project, raise concerns about biodiversity management.

- Fragmentation of chimpanzee habitats along the road corridor in an area crossed by the tunnels between the prefectures of Kindia and Mamou has been noted by national and international biodiversity organizations?



HIGH BIODIVERSITY RISKS ASSOCIATED WITH THE PROJECT

The main risk is that the companies and their subcontractors will continue to violate their environmental commitments, especially as these companies belong to groups of companies that have already violated such commitments on projects in Guinea and elsewhere in the world. This is the case for Winning in Guinea, according to reports by the International Federation for Human Rights, Natural Justice and Human Rights Watch; and for Rio Tinto in Guinea, according to a complaint lodged with the World Bank's ombudsman, and in other countries. More specifically, the risks are as follows:

- On Chimpanzees and other primates [Earth Insight map to be inserted]: The railroad linking the mining site in the Kérouané prefecture and the mineral port of Senguelen in the Forécariah prefecture is likely to have devastating effects, notably the fragmentation of chimpanzee habitats in the areas of Kindia and Mamou crossed by the railway infrastructure, and habitat areas near the Kérouané mining zone, leading to their disappearance.
- On Protected Areas: According to a preliminary analysis of WCS's environmental and social impact study on biodiversity, the railroad will bisect the important Outumba-Kilimi-Kuru Hills-Pinselli-Soya transboundary landscape (OKKPS, 7,500 km²).

This will undoubtedly lead to forest fragmentation and ecosystem disruption in this area, which includes buffer zones and forest corridors important for climate resilience in Guinea and Sierra Leone, and for the protection of remaining natural habitats for the conservation of several animal species, including nine species of primate. The railroad project, which runs along the Kounoukan massif, threatens the important Kounoukan plant community, with its thirty-one (31) threatened plant species and eight (8) endemic species. The clearing of forest areas for iron ore mining in the mining zone, notably in the localities of Kounsankoro, Damaro Lenko, Moribadou, Traorela, etc., and in the areas crossed by the railroad, will undoubtedly lead to the loss and fragmentation of important natural habitats, disrupting ecosystems, affecting biodiversity and causing long-term ecological consequences. The project threatens other protected areas, such as the Haut Niger National Park (Mamou), the southern part of which will be crossed by the railway, and the Farenta protected area. These areas also contain animal species such as hippos, buffaloes, cobas, West African chimpanzees, etc. The Pic de Fon and Mont Béro are located on blocks 3 and 4.

- On the port area (Senguelen): The construction of the port, the installation of related infrastructures and transport activities requiring clearing and filling work would cause the disappearance of mangroves,

- the removal of fish species and the reduction of the floodplain, which are resting and breeding areas for fish and crustaceans.
- Migration flow: The Simandou project will lead to a significant migration flow in the region. This increases the risk of increased hunting of primates and other animals, and a sharp decline in the remaining populations of endangered species in the Simandou mountain range.
- Limitations of the Environmental and Social Impact Assessment (ESIA): An analysis of the Environmental and Social Impact Assessment carried out by WCS and presented to stakeholders at a workshop on October 18 and 19, 2022 revealed that an assessment of the impact of mining activities on these endangered species had not been carried out. The analysis also revealed that the winter period study had not been completed. These major shortcomings lead us to conclude that the plans proposed by WCS to mitigate the project's impacts on biodiversity are therefore inadequate, and as a result, iron ore mining and the construction and operation of the project's associated infrastructure would have devastating impacts on the environment and important biodiversity if these shortcomings are not corrected now, given that project activities such as the construction of the railway and ore port are already underway.

CONCLUSIONS AND RECOMMENDATIONS

1) Conclusions

Aware of the importance of the ecosystem and biological diversity found in and around the overall project area, there is every reason to believe that the development of the Simandou project in its various phases will have an impact on this important receiving environment, which includes animal and plant species considered threatened and/or endemic. The lives of communities living near the project site will also be at risk, given their dependence on this biological environment, which provides them with important ecosystem services.

2) Recommendations:

The following recommendations are accordingly addressed to the companies and the State to take measures and put in place effective preventive and mitigating provisions to protect the important biological diversity throughout the life of the Simandou mine

TO THE GOVERNMENT AND ITS RELEVANT DEPARTMENTS

- Strengthen the framework following the legal and contractual commitments of WCS and Rio Tinto in terms of biodiversity management;
- Ensure compliance with the obligations set out in the 2019 Environmental Code, and the international conventions and commitments ratified by Guinea on biodiversity protection.
- Require companies to conduct periodic audits of their environmental and social performance, and impose sanctions for breaches of commitments.

TO RIO TINTO AND WINNING CONSORTIUM SIMANDOU:

- Carry out a specific chimpanzee survey in the OKKPS landscape to determine presence and distribution in this landscape.
- Carry out a comprehensive ecosystem services assessment of the project area, aligning the project with SFI performance standards (PS6).
- Update the existing biodiversity impact assessment and management plans for all project components to take into account the criticisms and recommendations noted at the biodiversity management reporting workshops in October 2022.
- Complete the ESIA over the winter period to ensure effective data collection and assessment of all the project's risks and impacts on biodiversity;
- Draw up a detailed action plan in line with the required standards (PS6) on biodiversity management;
- Include a comprehensive survey on hunting and bushmeat.
- Ensure the effective participation of local communities and NGOs in the ESIA update process.

DISCLAIMER: THIS DATA SHEET HAS BEEN COMPILED ON THE BASIS OF INFORMATION AVAILABLE AT THE DATE OF PUBLICATION AND WILL BE UPDATED AS AND WHEN REQUIRED.



Advocates for
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