

**To Norges Bank**

14 February 2023

UNOFFICIAL TRANSLATION

**Recommendation to exclude Power  
Construction Corp of China Ltd from  
investment by the Norwegian Government  
Pension Fund Global (GPF)**

## Summary

The Council on Ethics recommends that Power Construction Corp of China Ltd (PowerChina) be excluded from investment by the Norwegian Government Pension Fund Global (GPF) due to an unacceptable risk that the company is contributing to, or is itself responsible for, serious environmental damage.

PowerChina is a Chinese multinational company that engages in the construction of hydropower schemes and operation of power stations, among other things. At the close of 2022, the GPF owned 0.03 per cent of the company's shares, worth NOK 40.3 million. The company's shares are listed on the Shanghai Stock Exchange.

This case relates to the potential loss of important biodiversity. The Council's assessment rests on the UN Convention on Biological Diversity (CBD) and the Kunming-Montreal Global Biodiversity Framework, from 2022, which sets targets for reducing the loss of ecosystems and species, and establishes an expectation that companies shall contribute towards this end.

PowerChina's wholly owned subsidiary Sinohydro Corp Ltd (Sinohydro), is responsible for the construction and operation of the Batang Toru hydropower project in Indonesia, which lies on the Batang Toru river in South Tapanuli, North Sumatra. The project includes the construction of an almost 80-metre high dam, which will create a reservoir covering nearly 1 km<sup>2</sup>, as well as tunnels, coffer dams access roads, soil deposit sites, workers' housing areas, etc. The work should have been completed in 2022, but is several years behind schedule – partly due to the pandemic and partly to a funding shortfall.

The project is located in a Key Biodiversity Area, which is also home to the critically endangered Tapanuli orangutan. The Tapanuli orangutan is the most endangered of all the great apes, and habitat loss is the most important threat to the survival of this species. The Council attaches considerable importance to the fact that there are fewer than 800 of these animals left in the Batang Toru forest, that this forest is the species' only remaining habitat worldwide, and that this habitat is estimated to cover less than 5 per cent of the Tapanuli orangutan's original range. The hydropower project lies in the area with the highest concentration of orangutans, in a landscape partly covered by dense lowland rainforest in which a number of other critically endangered species, as well as species new to science (in 2015), also live. This area will be permanently destroyed as a result of the project.

In addition, it is likely that the project's infrastructure will further fragment the Tapanuli orangutan's habitat and block connectivity between different parts of its range, thereby reducing the genetic exchange between population groups. The project's impact on all the endangered species that depend on this area will

probably be significant, and the project increases the likelihood of several critically endangered species, including the Tapanuli orangutan, becoming extinct.

The Council also notes that 17 employees and local community members have died in connection with the project over a period of two years, and that the company does not seem to have addressed this. In the Council's opinion, the deaths are a clear indication that the company's safety measures are insufficient and that its safety culture is inadequate.

PowerChina has not replied to the Council's queries.

The company has also been awarded contracts in other areas where the environmental risk is extremely high. Although the Council has not assessed in detail any other projects that the company has taken on, they indicate that the company's operations are not curtailed by environmental considerations.

The Council concludes that the construction of the hydropower project in Batang Toru will have a destructive impact on the environment, thereby further reducing the Tapanuli orangutan's habitat, and will pose a serious threat to the survival of this orangutan species as well as other critically endangered species.

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# 1 Introduction

The Council on Ethics for the Norwegian Government Pension Fund Global (GPFG) has assessed the Fund's investment in Power Construction Corp of China Ltd (PowerChina)<sup>1</sup> against the Guidelines for Observation and Exclusion of Companies from the Government Pension Fund Global (the ethical guidelines).<sup>2</sup>

PowerChina is a Chinese multinational company that engages in the construction of hydropower schemes, operation of power stations and water management projects. The company describes itself as China's leading hydropower company and "the number one brand in the world" for hydropower planning, design, construction management and technology.<sup>3</sup>

At the close of 2022, the GPFG owned 0.03 per cent of the company's shares, worth NOK 40.3 million. The company's shares are listed on the Shanghai Stock Exchange.

## 1.1 Matters considered by the Council

The Council on Ethics has assessed whether there is an unacceptable risk that PowerChina, through its subsidiary Sinohydro's construction of the Batang Toru hydropower plant, is contributing to, or is itself responsible for, serious environmental damage, pursuant to section 4(e) of the ethical guidelines. In particular, the Council has assessed the risk of the project contributing to the loss of important biodiversity, especially the threat to the critically endangered Tapanuli orangutan and other critically endangered species, in connection with the construction of the power plant in North Sumatra, Indonesia.

When assessing cases relating to serious 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 is doing to prevent or rectify the damage. Furthermore, the Council assesses the risk that the company will continue its harmful practices.

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1 Issuer ID: 25129001

2 Guidelines for Observation and Exclusion of Companies from the Government Pension Fund Global (GPFG),  
[https://www.regjeringen.no/contentassets/9d68c55c272c41e99f0bf45d24397d8c/2022.09.05\\_gpfg\\_guidelines\\_observation\\_exclusion.pdf](https://www.regjeringen.no/contentassets/9d68c55c272c41e99f0bf45d24397d8c/2022.09.05_gpfg_guidelines_observation_exclusion.pdf)

3 PowerChina Annual Report 2021,  
<http://www.powerchina.cn/module/download/downfile.jsp?classid=0&filename=16bad59a57d24bfea8ed444697ce22d6.pdf>

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) has published several reports describing an alarming reduction in biodiversity. According to IPBES, around 25 per cent of all the species assessed may be classified as endangered and the eradication of species will accelerate if no action is taken to halt this development.<sup>4</sup> Habitat loss is the biggest threat to the survival of species.

The Council rests this recommendation on the UN Convention on Biological Diversity (CBD) and the Kunming-Montreal Global Biodiversity Framework, from 2022, which establishes an international commitment to the preservation of biodiversity.<sup>5</sup> The Council has placed particular emphasis on the biodiversity framework's goal of stopping the eradication of known endangered species through human action<sup>6</sup> and reducing to almost zero the loss of important areas of nature and ecosystems by 2030.<sup>7</sup> The Council also attaches importance to the biodiversity framework's expectation that businesses and financial institutions will help to reduce the loss of nature. For example, major transnational enterprises are expected to monitor, assess and share information about their exposure to nature-related risk and make this information freely available so that their risk to nature and adverse impacts can be reduced.<sup>8</sup>

When assessing the company's actions, the Council has drawn guidance from the Performance Standard on Biodiversity, published by International Finance Corporation's (IFC).<sup>9</sup> The World Bank's Environmental and Social Standards contain similar principles and guidelines.<sup>10</sup>

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<sup>4</sup> IPBES (2019): Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, <https://doi.org/10.5281/zenodo.3553579>.

<sup>5</sup> The Convention on Biological Diversity, <https://www.cbd.int/convention/> and 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>

<sup>6</sup> Kunming-Montreal Global Biodiversity Framework, Target A.

<sup>7</sup> Kunming-Montreal Global Biodiversity Framework, Target 1.

<sup>8</sup> Kunming-Montreal Global Biodiversity Framework, Target 15.

<sup>9</sup> IFC Performance Standards, [https://www.ifc.org/wps/wcm/connect/Topics\\_Ext\\_Content/IFC\\_External\\_Corporate\\_Site/Sustainability-At-IFC/Policies-Standards/Performance-Standards](https://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/Sustainability-At-IFC/Policies-Standards/Performance-Standards)

<sup>10</sup> The World Bank, Environmental and Social Standards, <https://www.worldbank.org/en/projects-operations/environmental-and-social-framework/brief/environmental-and-social-standards>

## *IFC Performance Standard 6, on Biodiversity, Conservation and Sustainable Management of Living Natural Resources*

The IFC's Environmental and Social Performance Standards are an internationally recognised set of norms for how companies should deal with environmental and social risks relating to their activities. The IFC standard on biodiversity (PS6) provides guidelines for how companies can deal with and mitigate the negative consequences for biodiversity and ecosystem services that their activities cause. The IFC standard contains particular guidelines relating to primates, which are elaborated on in the guide to the standard. This establishes that areas containing great apes will probably qualify as critical habitats, and that: "Where great apes may potentially occur, [...] the IUCN Species Survival Commission (SSC) Primate Specialist Group (PSG) Section on Great Apes (SGA) must be consulted as early as possible to assist in the determination of the occurrence of great apes in the project's area of influence." According to the guide, projects in such areas will "be acceptable only in exceptional circumstances, and individuals from the IUCN SSC PSG SGA must be involved in the development of any mitigation strategy."

Since 2006, the IFC standard has provided clear guidelines for what companies must do when they operate in critical habitats. Projects in critical habitats must, for example, not harm the natural values on which the area's designation as a critical habitat rests. Nor must they, over time, lead to a net reduction in the global population of critically endangered or endangered species. In addition, a robust, systematic and long-term programme of biodiversity monitoring and assessment must be integrated into the company's environment management system.<sup>11</sup>

### **1.2 Sources**

This recommendation is based on information obtained from PowerChina's website and other publicly available information, such as environmental impact assessments and academic articles. The company has neither replied to the Council's requests for information relating to the Batang Toru project, nor commented on a draft version of this recommendation.

## **2 Background**

### **2.1 About the company**

PowerChina is an integrated construction company "that provides investment and financing, planning design, engineering construction, equipment

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<sup>11</sup> IFC PS6 and Apes, <https://www.arrctaskforce.org/ifc-ps6-and-apes>

manufacturing, and operation management for clean and low-carbon energy, water resources, environmental construction and infrastructure.”<sup>12</sup> The company is a major player in the international hydropower industry, with over 130,000 employees and operations in more than 130 countries.<sup>13</sup> PowerChina lists 69 subsidiaries on its website. This includes Sinohydro Corporation Limited (Sinohydro), which is the company’s leading overseas subsidiary. Sinohydro has 486 international projects under construction in more than 72 countries, with a total contract value of USD 43 billion.<sup>14</sup>

### *Controversial hydropower projects undertaken by PowerChina*

PowerChina and Sinohydro are involved in several environmentally controversial projects. Sinohydro is constructing a hydropower plant on the Rufiji River at Stiegler’s Gorge in Tanzania. The entire project lies within the Selous Game Reserve, which is encribed in UNESCO’s list of endangered world heritage. In 2020, the company Elsewedy Electric, which has the contract for the project, was excluded from investment by the GPFG at the Council’s recommendation, due to extensive and irreversible damage to this world heritage site.<sup>15</sup> At that time, the GPFG had no holdings in PowerChina.

In 2019, Sinohydro was awarded the contract to build the Koukoutamba Dam in Guinea’s Moyen-Bafing National Park. The project threatens one of the last conservation areas for the critically endangered West African chimpanzee.<sup>16</sup> Construction work does not yet seem to have got underway.

PowerChina will also be responsible for the construction of the Erdeneburen power plant in Mongolia. The power plant will be built in the Tsambagarav Uul National Park, an ecologically sensitive area. Its dam could harm the habitat and

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<sup>12</sup> PowerChina’s website, [https://en.powerchina.cn/2022-10/24/c\\_823633.htm](https://en.powerchina.cn/2022-10/24/c_823633.htm)

<sup>13</sup> Power Construction Corp of China Ltd, Company Profile and News, <https://www.bloomberg.com/profile/company/601669:CH>

<sup>14</sup> International Hydropower Association, PowerChina, <https://www.hydropower.org/our-members/powerchina>

<sup>15</sup> The Council on Ethics’ recommendation to exclude Elsewedy Electric from investment by the Government Pension Fund Global (GPFG), <https://etikkradet.no/elsewedy-electric-co/>

<sup>16</sup> Financial Afrik, Energie: l’Omvs et Sinohydro signent le contrat commercial du Projet d’aménagement hydroélectrique de Koukoutamba en Guinée, 26 February 2019, <https://www.financialafrik.com/2019/02/26/energie-lomvs-et-sinohydro-signe-le-contrat-commercial-du-projet-damenagement-hydroelectrique-de-koukoutamba-en-guinee/>; and The Guardian, Chinese dam project in Guinea could kill up to 1,500 chimpanzees, 28 February 2019, <https://www.theguardian.com/world/2019/feb/28/chinese-dam-project-in-guinea-could-kill-up-to-1500-chimpanzees>



hinder the migration of snow leopards (red-listed as vulnerable), and negatively impact a Ramsar-designated wetland area extending over 3,300 km<sup>2</sup>. The project will probably also lead to pastoral communities losing their traditional grazing areas.<sup>17</sup> The project was planned to get underway in 2022, though construction work does not yet seem to have commenced.

In 2020, PowerChina signed an agreement with the Tibet Autonomous Region's authorities to exploit hydropower downstream in the Yarlung Zangbo River, a transnational river that runs from Tibet to India, where it becomes the Brahmaputra, and then continues on to Bangladesh as the Jamuna River.<sup>18</sup> The scheme involves construction of a 60-gigawatt megadam, three times larger than current output of the Three Gorges scheme, which is the world's largest hydropower plant to date. The river is important for some of Asia's most important ecosystems. Construction has not yet commenced.

PowerChina was also one of the main contractors on the Three Gorges hydropower scheme, which has an installed capacity of more than 22 gigawatt.<sup>19</sup> The project resulted in the forced relocation of more than 1.3 million people and has led to serious consequences for ecosystems and animal life.

The Council has not examined these projects in any further detail.

## 2.2 The Batang Toru project

The Batang Toru hydropower project lies on the Batang Toru River in South Tapanuli, North Sumatra, Indonesia.

In 2015, Sinohydro signed an Engineering, Procurement and Construction (EPC) contract with the project owner PT North Sumatera Hydro Energy (NSHE). NSHE is an Indonesian joint venture established in 2018 specifically to develop the

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<sup>17</sup> Dugersuren, S., Opinion: Still time to rethink Mongolia's biggest dam to date, The Third Pole, 3 June 2022, <https://www.thethirdpole.net/en/energy/opinion-still-time-to-rethink-mongolias-erdeneburen-hydropower-plant/> and Lkhaajav, B. 2022, China-Financed Hydroelectric Power Plant Faces Popular Opposition in Mongolia, The Diplomat, 24 August 2022, <https://thediplomat.com/2022/08/china-financed-hydroelectric-power-plant-faces-popular-opposition-in-mongolia/>

<sup>18</sup> Jie, S. and Xiaoyi, L: China to build historic Yarlung Zangbo River hydropower project in Tibet, Global Times, 29 November 2020, <https://www.globaltimes.cn/content/1208405.shtml>, and The Third Pole, China's plans for gigantic Brahmaputra dam strains relations with India further, 4. December 2020, <https://www.thethirdpole.net/en/regional-cooperation/chinas-plans-for-gigantic-brahmaputra-dam-strains-relations-with-india-further/>

<sup>19</sup> Powerchina homepage: Hydro, 29 September 2022, [https://en.powerchina.cn/2022-09/29/c\\_816971.htm](https://en.powerchina.cn/2022-09/29/c_816971.htm)

project.<sup>20</sup> According to PowerChina, the contract involves engineering and design, the procurement of all equipment and the construction of a power plant with an installed capacity of 510 MW.<sup>21</sup> Sinohydro will also be responsible for the plant's operation (through a 30-year Build, Operate and Transfer (BOT) agreement) and for obtaining project funding from Chinese financial institutions. The project covers an area of 6.26 km<sup>2</sup>. The dam is 78 m in height, and has a crest of approx. 150 m in length. The reservoir covers an area of around 0.9 km<sup>2</sup>. A 13-km tunnel (headrace) will lead the water to the power plant, which occupies around 1.1 hectares at the southern end of the project area. Other important elements in the project include the construction of two coffer dams, diversion and spillway tunnels, access roads, disposal sites for the excavated earth, a concrete mixing facility and workers' housing.<sup>22</sup> Power transmission lines will also be built in connection with the project.

An estimated USD 1.6 billion will be invested in the Batang Toru hydropower scheme. The project was due to start in 2015 and be finished in 2022. However, it has been delayed by several years, partly due to the Covid-19 pandemic and partly due to a lack of funding.<sup>23</sup>

In 2019, Bank of China announced that it would reassess its award of loans to the project, due to environmental considerations.<sup>24</sup> The bank decided to pull out of the project altogether in 2020.<sup>25</sup> In June 2022, SDIC Power Holding Co Ltd, a company listed on the London Stock Exchange, invested USD 277 million to

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<sup>20</sup> NS Energy, Batangtoru Hydropower Project, South Tapanuli, Indonesia. Three Indonesian companies have holdings in the NSHE, <https://www.nsenergybusiness.com/projects/batangtoru-hydropower-project/>

<sup>21</sup> PowerChina homepage, Indonesia, [https://en.powerchina.cn/2022-10/10/c\\_818569.htm](https://en.powerchina.cn/2022-10/10/c_818569.htm)

<sup>22</sup> Environmental Resources Management (ERM) 2017, Final Report. Addendum Environmental, Social and Health Impact Assessments (ESHIA). Batang Toru Hydropower Project. PT North Sumatra Hydro Energy (NSHE), [https://nsheweb.files.wordpress.com/2018/08/batang-toru-hydropower\\_esia\\_final-240217.pdf](https://nsheweb.files.wordpress.com/2018/08/batang-toru-hydropower_esia_final-240217.pdf)

<sup>23</sup> Jong, H.N., Dam that threatens orangutan habitat faces three-year delay, Mongabay, 15 July 2020, <https://news.mongabay.com/2020/07/batang-toru-hydropower-dam-tapanuli-orangutan-delay-nshe/>

<sup>24</sup> Bank of China, Notes on the Hydroelectric Dam Project in Batang Toru of Indonesia, 3 April 2019, [https://www.boc.cn/en/bocinfo/bi2/201903/t20190304\\_14882309.html](https://www.boc.cn/en/bocinfo/bi2/201903/t20190304_14882309.html)

<sup>25</sup> Rochmyaningsih, D., Dam threatening world's rarest great ape faces delays, *Science*, 1 December 2020, <https://www.science.org/content/article/dam-threatening-world-s-rarest-great-ape-faces-delays>

acquire a 70 per cent stake in the project.<sup>26</sup> The State Development & Investment Corporation (SDIC) is the largest state-owned investment company in China and controls SDIC Power Holding.<sup>27</sup>

NHSE originally sought funding from the IFC and the Asian Development Bank. Since the IFC requires compliance with the IFC Performance Standards, NHSE had to perform additional environmental impact assessments on the project (in the following referred to as the “impact assessment addendum”).<sup>28</sup> This study is the main source of the information on environmental impacts set out in Chapter 3. Both banks are said to have declined to finance the project after the impact assessment addendum documented the presence of critically endangered species in the project area.<sup>29</sup>

### 2.3 Tapanuli orangutan’s habitat

Orangutans are tree-dwelling great apes. The genus comprises three species, which are found only in Sumatra and Borneo. The Tapanuli orangutan (*Pongo tapanuliensis*) was described as a different species to the Sumatra orangutan (*Pongo abelii*) in 2017.<sup>30</sup> The IUCN classed the Sumatra orangutan as being critically endangered as far back as 2003.

There are barely 800 individual Tapanuli orangutans still in existence, with the population divided into three groups. The species is found only in the Batang

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<sup>26</sup> Telling, O., Chinese state-owned company accused of endangering rare orang-utans, *Financial Times*, 19 June 2022, [https://www.ft.com/content/b15d75ea-cced-4204-8540-912f9e693a5e?accessToken=zwAAAYG0kEMzkdOxXXXqzO1CBNOFQJEvnmk6Xg.MEQCI A3korGFcKNXSbmRujCSRcbmgrkP7h\\_tYdabH5vgPowEAiA5XOUA3P73uGN4Qa0p\\_FiRr1Rm4JCszc35DsUID5wazA&segmentId=e95a9ae7-622c-6235-5f87-51e412b47e97&shareType=enterprise](https://www.ft.com/content/b15d75ea-cced-4204-8540-912f9e693a5e?accessToken=zwAAAYG0kEMzkdOxXXXqzO1CBNOFQJEvnmk6Xg.MEQCI A3korGFcKNXSbmRujCSRcbmgrkP7h_tYdabH5vgPowEAiA5XOUA3P73uGN4Qa0p_FiRr1Rm4JCszc35DsUID5wazA&segmentId=e95a9ae7-622c-6235-5f87-51e412b47e97&shareType=enterprise)

<sup>27</sup> SDIC’s homepage, [https://www.sdic.com.cn/en/about/A0201index\\_1.htm](https://www.sdic.com.cn/en/about/A0201index_1.htm)

<sup>28</sup> ERM 2017: Addendum Environmental, Social and Health Impact Assessment

<sup>29</sup> Jong, H.N., Dam that threatens orangutan habitat faces three-year delay, Mongabay, 15 July 2020, and Meijaard, E. and Wich, S.A. Is this our chance to save the world’s rarest great ape? – IUCN Crossroads blog, 20 July 2020, <https://www.iucn.org/crossroads-blog/202007/our-chance-save-worlds-rarest-great-ape>

<sup>30</sup> Scientists thought that there were two species of orangutan: the Sumatra orangutan (*Pongo abelii*) and the Borneo orangutan (*Pongo pygmaeus*). Physical and genetic data have subsequently documented that an isolated population of orangutans in Batang Toru represents a separate species. See, for example, Anderson, N., New Great Ape Species Found on Sumatra: Tapanuli Orangutan (*Pongo tapanuliensis*), *Science News*, 2 November 2017, <http://www.sci-news.com/biology/tapanuli-orangutan-pongo-tapanuliensis-05388.html>

Toru forest in North Sumatra, an area of approx. 1,100 km<sup>2</sup>. Orangutans are long-lived and have low reproductive rates. Even a low level of excess mortality due to external factors (in this case just a few individuals per year) could threaten the growth and survival of the population.<sup>31</sup> Scientists have argued that the Tapanuli orangutans' entire remaining habitat should be strictly protected.<sup>32</sup>

The orangutans' habitat, which lies in a Key Biodiversity Area<sup>33</sup> and is included in the Sundaland Biodiversity Hotspot,<sup>34</sup> has been reduced in size by over 95 per cent in the past 130 years. The vestigial area is small, fragmented and poorly protected. The habitat is divided into three blocks, which each have their own population. The western block contains fewer than 600 individuals; the eastern block contains around 150 individuals; while just a few dozen individuals inhabit the third block, towards the south.<sup>35</sup> The hydropower project lies in the southeast corner of the western block. (Fig. 1).

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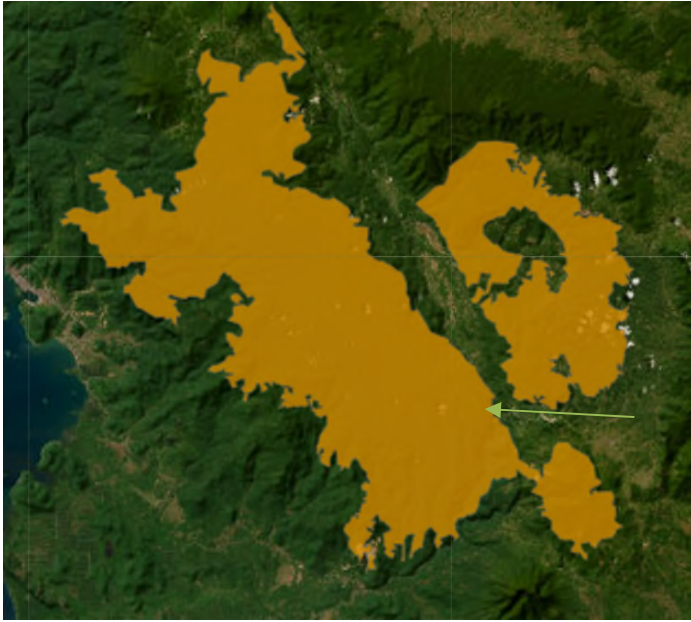
<sup>31</sup> Wich S.A., Fredriksson G., Usher G., Kühl H.S., Nowak, M.G., 2019, The Tapanuli orangutan: Status, threats, and steps for improved conservation. *Conservation Science and Practice*, 2019; e33. <https://doi.org/10.1111/csp2.33>.

<sup>32</sup> See, for example, footnote 31 and Sloan, S., Supriatna, J., Campbell, M.J., Alamgir, M., Laurance, W.F, 2018, Newly discovered orangutan species requires urgent habitat protection, *Current Biology*, Volume 28, Issue 11, Pages R650-R651, ISSN 0960-9822, <https://doi.org/10.1016/j.cub.2018.04.082>.

<sup>33</sup> Key Biodiversity Areas (KBAs) are the most important places in the world for species and habitats, <https://www.keybiodiversityareas.org/>.

<sup>34</sup> Critical Ecosystem Partnership Fund, Sundaland, <https://www.cepf.net/our-work/biodiversity-hotspots/sundaland#:~:text=The%20Sundaland%20Biodiversity%20Hotspot%20covers, islands%20of%20Borneo%20and%20Sumatra.>

<sup>35</sup> Sloan, S., et.al., 2018.



*Fig. 1: The area of the Batang Toru forest inhabited by Tapanuli orangutans (marked in yellow). The orangutans' habitat is divided into three blocks, located to the west, east and southeast. The arrow shows the approximate position of the hydropower project.<sup>36</sup>*

### **3 Environmental impact**

The Batang Toru River runs for 170 km from the top of the catchment area to the Indian Ocean. The hydropower project lies in the centre of the catchment area, where the river banks are steep. The river flows through the Batang Toru forest for 65 km. The project will inundate 3 km of this stretch of river.

#### *Biodiversity in the project area*

The Batang Toru forest is designated a Key Biodiversity Area. It is known for its diversity of ecosystems, with unique animal species such as the Tapanuli orangutan and the Sumatran tiger, and its many different types of habitats. The baseline studies that were performed in connection with the impact assessment addendum "confirmed the presence of significant terrestrial biodiversity values within the Project Area of Influence".<sup>37</sup> The survey of terrestrial species revealed the following:

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<sup>36</sup> Nowak, M.G., Rianti, P., Wich, S.A., Meijaard, E., Fredriksson, G., 2017. *Pongo tapanuliensis*. *The IUCN Red List of Threatened Species 2017*: e.T120588639A120588662. <https://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T120588639A120588662.en>.

<sup>37</sup> See section 4.2.3.

- 502 species of plants, 16 of which were classified as endangered or critically endangered, one was classed as endemic or with a restricted range (meaning it is found only here), while three were new to science.
- 47 species of mammals, 8 of which were classified as endangered or critically endangered, while 8 were listed as vulnerable.
- 73 species of reptiles and amphibians, 2 of which were endangered and 2 were new to science.
- 175 species of birds, 3 of which were endemic. Several migrating bird species from the northern hemisphere appear to overwinter in the area.
- An important characteristic of the project area was “a unique assemblage of primates”.<sup>38</sup> According to the impact assessment addendum, the Batang Toru forest is the only place on Earth where three primate species – the agile or black-handed gibbon (*Hylobates agilis*), the siamang gibbon (*Symphalangus syndactylus*) and orangutans – live within the same geographic area. In the area that will be affected by the hydropower project, a total of 213 orangutan nests were identified, indicating a 26–57 per cent higher density of orangutans than in other parts of the Batang Toru forest. There was also a higher incidence of the other primate species here than in other parts of the forest. The study concluded that the area which would be affected by the project qualified as a critical habitat (as defined in the IFC’s SP6 on biodiversity) for these species and for a number of other endangered species identified in the survey (see Fig. 2).

#### *Important environmental consequences*

A material impact of the hydropower project will be the permanent loss of habitats where forest is cleared. Around 5 km<sup>2</sup> of forest will be removed. Some 76 per cent of this encompasses natural habitats covered by primary and secondary forest, mainly lowland rainforest. However, the project’s knock-on effects are estimated to be much greater. It has been calculated that around 95 km<sup>2</sup> or 8 per cent of the orangutans’ habitat will be negatively impacted by the project.<sup>39</sup> The inundation area could create a barrier which will be difficult for some species to cross, while the cutting down of trees will cause edge effects and the degradation of previously pristine areas.

The project will probably contribute to the further fragmentation of the orangutans’ habitat and limit their ability to move between the three blocks of forest (Fig. 1). Their ability to interact, and thereby also to exchange genes between the populations, will be reduced. The risk of inbreeding will therefore increase. Such forest fragmentation will also reduce opportunities for

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<sup>38</sup> ERM 2017: Addendum Environmental, Social and Health Impact Assessment, p. 114.

<sup>39</sup> Sloan, S., et.al., 2018.

recolonisation if the population in one of the two smaller blocks should die out. The planned 20 km of roads, 14 km of power transmission cables through the Tapanuli area, and the approx. 3 million m<sup>3</sup> of soil and rock that will be dumped within the habitat, could amplify these impacts.<sup>40</sup>

When the impact assessment addendum was carried out, the Tapanuli orangutan had not been described as a separate species. Many scientists have subsequently concluded that the hydropower project, including the dam and associated infrastructure, poses a major threat to the Tapanuli orangutans' survival as a species. The project lies in a core area, with a relatively high density of orangutans. There seems little doubt that the orangutan population will be adversely impacted by the reduction in size and quality of their habitat, while connectivity between the three blocks of forest will probably be reduced.<sup>41</sup> Due to the extremely low number of individuals and the threats to the population as a result of ongoing and planned projects, scientists consider there to be a significant risk that the project will increase the likelihood of the species becoming extinct.<sup>42</sup>

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<sup>40</sup> Wich, S.A., et.al, 2019,

<sup>41</sup> Wich, S.A., et.al, 2019.

<sup>42</sup> Cannon, J., 'Rarest' ape's path to survival blocked by roads, dams and agriculture, Mongabay, 3 May 2018, <https://news.mongabay.com/2018/05/rarest-apes-path-to-survival-blocked-by-roads-dams-and-agriculture/>



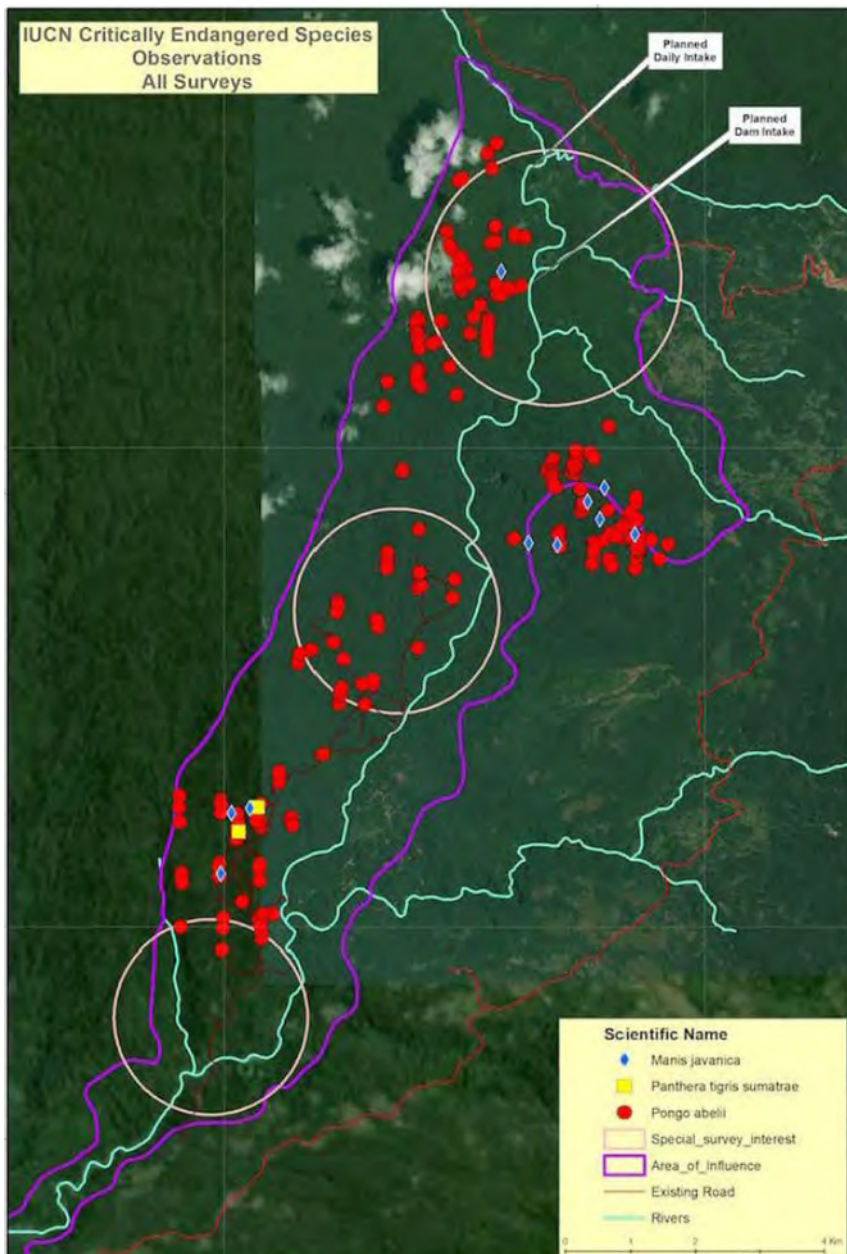


Fig. 2: Verified observations of species that the IUCN has listed as critically endangered.<sup>43</sup> The figure shows observations of pangolins (*Manis javanica*, blue diamonds), Sumatran tigers (*Panthera tigris sumatrae*, yellow oblongs) and Tapanuli orangutans (*Pongo abelii*, red circles) in the project's area of influence (demarcated by the purple line).

In 2018, NSHE (the project owner) and an Indonesian NGO published a report entitled: Impact of Batang Toru Hydropower Construction on Primary Forest, Orangutan Population and Habitat, Drought and Flood, Greenhouse Gases

<sup>43</sup> The figure has been taken from the addendum report, ERM, 2017.



Emission and Socio-Economic Surroundings.<sup>44</sup> According to the authors, the project's purpose was to collect accurate scientific data and information to clarify the issues "that are raised by the environmental activists". This includes the removal of primary forest and destruction of the Tapanuli orangutans' habitat and population. The report concluded that "most of the lands that are allocated for the hydropower development activities are not primary forest cover." It contested the impact assessment amendment's results concerning the presence of orangutans and claimed that the survey was defective. The report concluded by stating that "the project sites used to develop Batang Toru HPP [hydropower project] are seldomly used by orangutans, hence cannot be categorized as orangutan main habitats", and that the orangutan population in the project area was probably very small.

In 2020, the IUCN fact-checked the claims in the NSHE report, along with other claims in NSHE's publications and press releases.<sup>45</sup> The IUCN found that these claims were in "conflict with findings in peer-reviewed literature and technical reports or with the observations of established experts in relevant fields", and that supporters of the project had made misleading claims and in order to buttress their own views. NSHE countered that the fact-check was wrong.<sup>46</sup> The IUCN called for a moratorium and proposed that the IUCN's Great Ape Specialist Group should perform an independent investigation in accordance with the IFC standard to assess the project's impact on the Tapanuli orangutans. NSHE did not reply to this suggestion.

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<sup>44</sup> Santosa, Y., Hilwan, I. Jaya, N.A., Sunkar, A., Rahman, A., Risdiyanto, I., 2018, Impact of Batang Toru Hydropower Construction on Primary Forest, Orangutan Population and Habitat, Drought and Flood, Greenhouse Gases Emission and Socio-Economic Surroundings. Final Research Report. The Center of Study, Advocacy and Nature Conservation (Pustaka Kalam), Bogor, 2018, <https://docplayer.net/130436049-Final-research-report.html>

<sup>45</sup> IUCN Section on Great Apes, 2020, BatangToru Hydropower Project, Factcheck and References on Key Issues, <http://static1.1.sqspcdn.com/static/f/1200343/28292859/1588408298700/BatangToruFactcheckReport.pdf>

<sup>46</sup> Jong, H.N, Dam that threatens orangutan habitat faces three-year delay, Mongabay, 15 July 2020.

## 4 Accidents and fatalities in the project area

In December 2020 and April 2021, the project area was hit by landslides. One worker died in the first incident, while 13 people lost their lives in the second.<sup>47</sup> In May 2022, a worker died after a tree fell on him. In August 2022, and again in November of that year, part of a tunnel collapsed.<sup>48</sup> On both occasions one worker died. In the course of two years, therefore, 17 people have lost their lives while working on the project. Neither PowerChina nor Sinohydro have provided information about the accidents or the extent to which they have affected the company's health and safety procedures and precautions.

## 5 Information provided by the company

The Council on Ethics contacted PowerChina in November 2022 and again in December of that year to request information about the project and the environmental assessments the company had performed. The company has neither replied to the Council's queries nor commented on a draft version of the recommendation to exclude it, which it was sent in January 2023.

According to the company's sustainability report for 2021, PowerChina considers "environmental protection as the cornerstone of the sustainable development, strictly complies with the relevant provisions of domestic and international laws as well as regulations on environmental protection [...] strengthens ecological environment management and biodiversity protection, actively responds to climate change, strives to reduce the disturbance from its development on the environment, maintains the harmonious coexistence between human beings and nature, and provides strong support to global sustainable development."<sup>49</sup>

With regard to the conservation of biodiversity, PowerChina stated that it implements "the ecological concept of respecting nature, conforming to nature and protecting nature, follows the laws of natural ecosystem succession and inherent mechanisms, and carries out overall protection, systematic restoration

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<sup>47</sup> Karokaro, A.S., Death toll rises to 10 after landslide at dam site in orangutan habitat, Mongabay, 7 May 2021, <https://news.mongabay.com/2022/11/tunnel-collapse-at-dam-project-in-orangutan-habitat-claims-yet-another-life/>

<sup>48</sup> Jong, H.N., Tunnel collapse at dam project in orangutan habitat claims yet another life, Mongabay, 21 November 2022, <https://news.mongabay.com/2022/11/tunnel-collapse-at-dam-project-in-orangutan-habitat-claims-yet-another-life/>

<sup>49</sup> PowerChina 2021, Environmental and Social Governance Report, p. 27, <http://www.chinadaily.com.cn/specials/2021ENVIRONMENTALSOCIALANDGOVERNANCEREPORT.pdf>

and comprehensive treatment of ecosystems whose functions were damaged, degraded and weakened through engineering and non-engineering measures.”<sup>50</sup>

In its sustainability report, PowerChina addressed the importance of good health and safety routines in its projects. With reference to the President of China, Xi Jinping’s instructions regarding safe production, the company wrote that it has “established the ‘red line consciousness’ that development shall not be sacrificed over safety, and resolutely achieved a serious system, strict prevention at source, strict control in the process, and strict punishment in the consequences as an important scale and important connotation of the Company's high-quality development.”<sup>51</sup> PowerChina also wrote that it had had no serious accidents in 2021. Under “safety management”, however, it reported that 13 employees had died.<sup>52</sup>

Neither PowerChina nor Sinohydro has published any material information about the Batang Toru project.

## **6 The Council’s assessment**

On the basis of the available information, the Council has assessed whether there is an unacceptable risk that PowerChina is contributing to, or is itself responsible for, serious environmental damage through the participation of its subsidiary, Sinohydro, in the Batang Toru project. Sinohydro is responsible for the construction and subsequent operation of the hydropower project.

The starting point for the Council’s assessment is that loss of species and biodiversity constitute some of the most important threats to nature and ecosystems. The loss of species is irreversible and can have wide-ranging consequences for other species, ecosystems’ function and stability, and local communities which depend on nature-related benefits for their livelihoods. Habitat degradation, reduction and loss is the most important reason why species are threatened with extinction. The risk of species and habitats being lost has been a key aspect of other recommendations the Council has issued in relation to biodiversity and serious environmental damage. In addition, the Council’s assessment rests on the Kunming-Montreal Global Biodiversity Framework’s goal of reducing the loss of species and nature, and expectation that companies will contribute to this end.

The Tapanuli orangutan is the most endangered of all the great apes. Habitat loss is the most important threat to this orangutan species’ survival. The Council

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<sup>50</sup> PowerChina 2021, p. 35.

<sup>51</sup> PowerChina 2021, p. 40.

<sup>52</sup> PowerChina 2021, p. 52.

attaches considerable importance to the fact that there are fewer than 800 individuals left in the Batang Toru forest, that this forest is the only place they live and that their current habitat accounts for less than 5 per cent of its original size. At the same time, the Council notes that the area is classified as a Key Biodiversity Area (KBA), due to its unusually rich biodiversity. It is also an important area for flora and fauna, with many species endemic to the area, several endangered and some completely new to science in 2015, when the species survey was carried out.

The environmental impact assessments for the project, as well as a number of peer-reviewed scientific articles, have concluded that there is a substantial risk that the hydropower project will have significantly negative consequences for the orangutan population and other endangered species that live in the project's area of influence. The Council notes that, according to these publications, the project lies in the area with the highest density of orangutans, and that this area will be destroyed by the project. It is probable that the project's infrastructure will further fragment the habitat and block connectivity between its different parts.

The Council has attached no importance to the project owner's assertions that the project does not lie in the core area for the Tapanuli orangutan. When there is less than 5 per cent of the animals' original habitat remaining, any further reduction will inevitably increase the threat to the orangutan population. There is no doubt that construction of a 78-m high dam with associated reservoir and infrastructure will result in huge, and irreversible, changes in what has been a pristine landscape partly covered in dense rainforest. The consequences for all the endangered species that depend on this area could therefore be enormous.

PowerChina states that the company is concerned to protect biodiversity and reduce the environmental harm relating to its construction projects, and that safety will be prioritised in this project. The company has neither replied to the Council's queries nor disclosed in any other fashion how it implements its guidelines, what it is doing to reduce environmental damage or to avoid accidents in the Batang Toru project. The Council takes it as read that the company does not comply with the IFC biodiversity standard and notes that several financial institutions, including the IFC and Bank of China, have declined to finance the hydropower project due to the environmental risks involved.

The Council further notes that 17 employees and community members have died in connection with the project and that the company has provided no information about how it has addressed this matter. In the Council's view, the fatalities are an indication that the company's safety measures are inadequate. It is also remarkable that PowerChina does not deem loss of life to constitute a serious incident, since the company reports zero accidents in 2021. The Council

considers that this helps to undermine the credibility of the company's health and safety systems and safety culture.

PowerChina is responsible for both constructing the power plant and operating it for a period of 30 years. Even though the company's role in the Batang Toru power plant by itself constitutes grounds for excluding the company, the Council notes that it has also built the power plant in the Selous Game Reserve, which is on UNESCO's list of World Heritage in Danger. The company has also been awarded contracts in other areas where the environmental risk is extremely high. Although the Council has not assessed in detail any other projects that the company has undertaken, they are an indication that the company does not appear to curtail its operations out of consideration for the environment.

The Council concludes that construction of the Batang Toru hydropower scheme will have highly destructive environmental consequences, in that it will further reduce the Tapanuli orangutan's habitat and that of other critically endangered species, and thereby represents a serious threat to the survival of these species.

## 7 Recommendation

The Council on Ethics recommends that Power Construction Corp of China Ltd be excluded from investment by the Government Pension Fund Global due to an unacceptable risk of the company being responsible for severe environmental damage.

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