

**To Norges Bank**

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UNOFFICIAL ENGLISH TRANSLATION

**Recommendation to exclude Elsewedy Electric Co from investment by the  
Government Pension Fund Global**

## Summary

The Council on Ethics for the Government Pension Fund Global (GPF) recommends that Elsewedy Electric Co (Elsewedy) be excluded from investment by the fund due to an unacceptable risk that the company is contributing to or is itself responsible for serious environmental damage. The Council's recommendation is a consequence of Elsewedy's participation in the construction of a dam and associated hydroelectric power plant on the Rufiji River at Stiegler's Gorge in Tanzania. The project, which is in a start-up phase, is located inside the Selous Game Reserve, an area that has been included on UNESCO's list of World Heritage Sites in Danger.

Elsewedy and the company Arab Contractors have been awarded a contract to construct the Stiegler's Gorge Hydropower Project on the Rufiji River, by Tanzania Electric Supply Company (TANESCO). Elsewedy and Arab Contractors have formed a joint venture in which Elsewedy holds 45 per cent of the shares. Since Elsewedy chairs the joint venture's board of directors, whose decisions must be unanimous, the Council on Ethics considers that the company has a significant influence over the project.

Selous Game Reserve is located in southern Tanzania. Extending over 50,000 km<sup>2</sup>, it is one of the largest protected areas in Africa. The reserve is part of the vast Selous ecosystem that encompasses 90,000 km<sup>2</sup>. Stiegler's Gorge is approx. 100 m deep and 100 m wide, and lies in the northern part of the reserve. The planned dam is 130m high and the resulting reservoir will have a surface area of 900–1,200 km<sup>2</sup>. Construction work, which will also include a power plant, saddle dams, power lines and other infrastructure, is expected to take 36 to 60 months, starting in June 2019. Tree-felling in the reservoir area has already begun. The entire project will take place inside the world heritage site.

The Council on Ethics has attached importance to the fact that the reserve is one of the last remaining large-scale wilderness areas in Africa, and is considered of extraordinary importance for the preservation of biodiversity – also in a global context. It is the home of many of Africa's large mammals, such as elephants, rhinos, giraffes, buffalo and antelopes, and contains an extraordinary diversity of both flora and fauna. Many of the species in this area are found nowhere else, and several are endangered. Since there is no permanent human settlement in the reserve, it has been largely unaffected by human activity. The Council attaches considerable importance to the fact that for over a decade UNESCO has repeatedly, and in ever stronger terms, expressed grave concern about the planned construction of hydropower facilities within the world heritage site, due to the significant and irreversible damage a project of this type will have on the area's outstanding environmental value.

Construction of a 130 m dam with a reservoir surface area of up to 1,200 km<sup>2</sup>, associated infrastructure, roads and power lines will undoubtedly entail massive and irreversible incursion into a practically pristine natural environment. At the same time, the Council notes that the project's environmental impact assessment has been deemed inadequate and incomplete by both the IUCN's and the company's own experts. In practice, there is no baseline data for natural and environmental values in the area that will be affected by the project. As a result, it is not known which environmental values are to be found there and what will be lost as a result of the project. In the Council's view, this amplifies the risk of serious environmental damage, which seems particularly high in areas of extraordinary global significance for biodiversity.

Elsewedy was awarded the construction contract in December 2018 and is not responsible for decisions, assessments and plans drawn up before that date. The Council finds it laudable that Elsewedy has, on its own initiative, decided to obtain more data to reduce the project's

environmental impact, and that it will also make changes to the project's design to mitigate the damage done as far as possible. However, Elsewedy has been aware from the outset of the Selous Game Reserve's protected status, and UNESCO's position on this matter has been a matter of public record for more than a decade. Elsewedy can therefore not have been ignorant of the environmental risks associated with the project, yet still decided to take part in its construction.

The Council on Ethics attaches material importance to UNESCO's assessment that the hydropower project will cause widespread and irreversible harm to a World Heritage Site. According to the World Heritage Centre, the damage caused by the deforestation that is already underway will be so great that it could lead to the Selous Game Reserve losing its World Heritage status. Mitigating measures would have little impact on this potential outcome.

The Council on Ethics therefore concludes that there is an unacceptable risk that Elsewedy is contributing to or is itself responsible for serious environmental damage.

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# 1 Introduction

The Council on Ethics for the Government Pension Fund Global (GPF) has assessed the fund's investments in Elsewedy Electric Co (Elsewedy) against the Guidelines for Observation and Exclusion of Companies from the GPF (the Ethical Guidelines) under the criterion for environmental damage.<sup>1</sup>

Elsewedy is listed on the Egyptian stock exchange. At the close of 2018, the GPF owned 2.65 per cent of the shares in Elsewedy Electric, with a market value of approx. NOK 502 million.

## 1.1 Matters considered by the Council

The Council of Ethics' assessment concentrates on Elsewedy Electric's participation in the construction of a dam and associated hydroelectric power plant on the Rufiji River at Stiegler's Gorge in Tanzania. The project, which is already in a start-up phase, is located in the Selous Game Reserve, which is listed as a World Heritage Site in Danger. The Council has considered whether there is an unacceptable risk that Elsewedy, through its participation in this project, is responsible for serious environmental damage, pursuant to section 3(c) of the GPF's Ethical Guidelines.

In previous recommendations relating to serious environmental damage, the Council has attached importance to:

- the scale of the environmental damage,
- whether the damage is irreversible or long lasting,
- whether the damage has a significantly negative impact on human life and health,
- whether national legislation or international conventions have been violated,
- whether the company has failed to take action to prevent damage being caused,
- whether the company has taken sufficient action to ameliorate the damage,
- whether it is probable that the company's unacceptable practices will continue.

In keeping with previous recommendations resulting from the Council's assessment of companies' activities in or near world heritage sites, emphasis has also been placed on the risk that the activity will result in damage to the site's underlying conservation value.<sup>2</sup>

## 1.2 Sources

The recommendation is based principally documents concerning the Selous Game Reserve World Heritage Site produced by the UNESCO World Heritage Committee and the World Heritage Centre between 1982 and 2018, as well as documents produced by the International Union for the Conservation of Nature (IUCN), which advises UNESCO. In addition, Elsewedy has provided a great deal of information about the project and has also commented on a draft recommendation to exclude it from the GPF. The Council has also held a meeting with the company.

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<sup>1</sup> Guidelines for Observation and Exclusion of Companies from the Government Pension Fund Global. Adopted by the Ministry of Finance on 18 December 2014: <http://etikkradet.no/mandat/>.

<sup>2</sup> See, for example, the Council on Ethics' recommendations regarding Halcyon Agri Corp, Bharat Heavy Electricals Ltd and Soco International plc.

## 2 Background

### 2.1 About the company and the joint venture

Elsewedy describes itself as “a fully integrated energy solutions provider”. The company manufactures wires, cable, transformers and meters and provides turnkey infrastructure projects to its customers. It is also engaged in electricity generation through wind power technology.<sup>3</sup>

On 12 December 2018, Elsewedy together with the company Arab Contractors (Osman A. Osman & Co)<sup>4</sup> signed an engineering, procurement and construction (EPC) contract for a hydropower project on the Rufiji River in Tanzania, known variously as the Rufiji River Hydropower Project or the Stiegler’s Gorge Hydropower Project. Elsewedy and Arab Contractors have formed a joint venture in which Elsewedy has a 45 per cent stake. Each company has two voting members on the joint venture’s steering committee. Voting is based on simple majority, but in practice decisions are unanimous.<sup>5</sup> Elsewedy has disclosed that it chairs the joint venture’s steering committee and that it fills all the joint venture’s key positions.<sup>6</sup>

### 2.2 The Stiegler’s Gorge Hydropower Project

Stiegler’s Gorge is 100 m deep and 100 m wide, and is located in the Selous Game Reserve in southern Tanzania. The idea of damming the Rufiji River at Stiegler’s Gorge has existed for more than 100 years. Plans for the construction of a hydropower plant gained traction in the 1970s, but were more or less abandoned in the mid-1980s. Interest in the project was renewed in the mid-2000s, and in the period 2011–2017, the Brazilian contractor Odebrecht entered into multiple MoUs with the Rufiji Basin Development Authority (RUBADA) to move the concept forward. Odebrecht undertook surveys, including an analysis of the environmental situation, but did not take the project any further.<sup>7</sup>

The hydropower project is located in the northern part of the Selous Game Reserve (see Fig. 2). The planned dam is a roller compacted concrete (RCC) dam, approximately 1 km wide and with a maximum height of 130 m. The dam’s crown is stipulated at 190 m. In addition, there will be four saddle dams with a combined length of 16 km at the southern end of the reservoir. A reservoir with a surface area of 900–1,200 km<sup>2</sup> will be created (approx. 12.5 km wide and 100 km long), while the total area to be affected by the hydropower project is approx. 1,350 km<sup>2</sup>. The planned power station will have a total installed capacity of 2,115 MW, doubling Tanzania’s generation capacity and providing an estimated annual average output of 6,500 GWh. The project will involve construction of a substation, two power transmission lines of 160 km and 145 km in length (4.5 km of which will be built by the joint venture), two coffer dams, a diversion tunnel, a bridge across the Rufiji River, two worker accommodation camps, two quarries, etc. The planned construction period is between 36 and 60 months, with work starting in June 2019. The workforce will number an estimated 5,000 people.<sup>8</sup> All these

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<sup>3</sup> Company website <http://ir.elsewedyelectric.com/en/our-lines-of-business>

<sup>4</sup> The GPFG has no holdings in Arab Contractors.

<sup>5</sup> Letter from Elsewedy to the Council on Ethics, 1 March 2019.

<sup>6</sup> Presentation by Elsewedy at its meeting with the Council on Ethics, 29 May 2019.

<sup>7</sup> Arms of Environment Ltd (undated): Situation Analysis Report of Initial Scoping Progress of the Stiegler’s Gorge Hydropower Project’ (The report was prepared for Odebrecht, reportedly in 2013).

<sup>8</sup> See footnote 6.

activities will take place within the Selous Game Reserve. Plans for reservoir operation and water-flow management are currently not available. Elsewedy has disclosed that the project design may be amended along the way for environmental or other reasons.

Work at the construction site has commenced. Forest and vegetation in the reservoir area is currently being removed, and existing roads are being upgraded. Construction of the diversion tunnel is planned to start up in July 2019. The contract period for the project is set at 42 months, and is scheduled for completion in June 2022.

## 2.3 Selous Game Reserve and World Heritage Site

The Selous Game Reserve is located in the central part of Tanzania. At 50,000 km<sup>2</sup>, it is one of the largest protected areas in Africa (IUCN Category IV).<sup>9</sup> The reserve lies at the heart of the vast Selous Ecosystem that covers 90,000 km<sup>2</sup>. It is functionally linked to the Niassa Game Reserve (42,000 km<sup>2</sup>) in northern Mozambique through the Selous-Niassa Wildlife Corridor, which forms an ecologically vital connection between these two reserves. Two national parks (Mikumi and Udzungwa National Parks), as well as the Ramsar Wetlands and the Kilombero Game Controlled Area are also included in the vast Selous Ecosystem.<sup>10</sup>

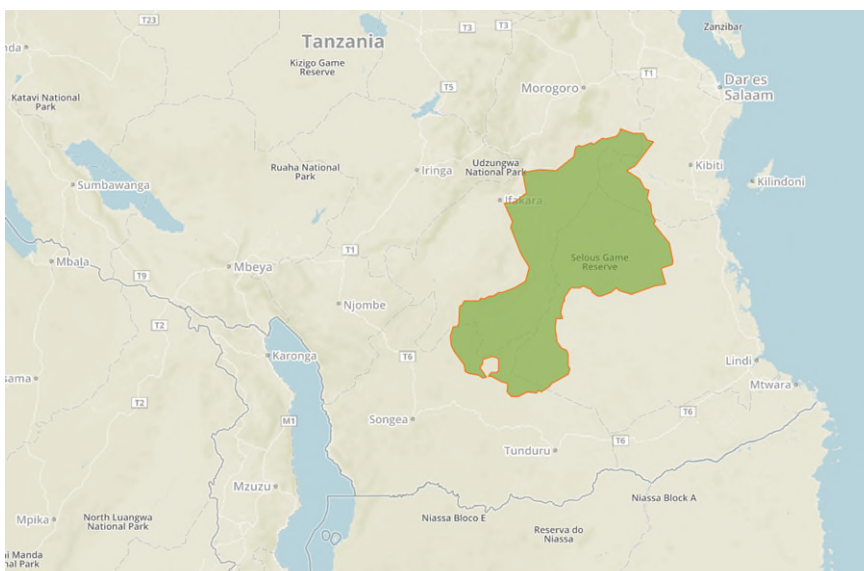


Fig. 1 Selous Game Reserve<sup>11</sup>

<sup>9</sup> The International Union for the Conservation of Nature (IUCN) classifies protected areas according to their management objectives, see <https://www.iucn.org/theme/protected-areas/about/protected-area-categories>

<sup>10</sup> Its ecology and conservation values are described on UNESCO's website, <https://whc.unesco.org/en/list/199> and in reports deriving from UNESCO and the IUCN's field trips to the area, including WWF 2017: *The True Cost of Power. The Facts and risks of Building Stiegler's Gorge Hydropower Dam in Selous Game Reserve, Tanzania*, <https://www.worldwildlife.org/publications/the-true-cost-of-power-the-facts-and-risks-of-building-stiegler-s-gorge-hydropower-dam-in-selous-game-reserve-tanzania>.

<sup>11</sup> Protected Planet, <https://www.protectedplanet.net>



Fig. 2: Location of the project within the reserve<sup>12</sup>

Through the Rufiji River, the reserve is also functionally linked to the Rufiji-Mafia-Kilwa Marine Ramsar Site, an area of wetlands of international importance that lies on the Indian Ocean coast, and to the Mafiad Marine Park, which is rich in coral reefs. The Rufiji River Delta (approx. 1,400 km<sup>2</sup>, of which 550 km<sup>2</sup> are mangrove forests) is part of the Ramsar Site. The hydropower project is located approx. 200 km upstream of the Rufiji delta and the coast (340 km by road). See fig. 2.

The Selous Game Reserve is one of the largest remaining wilderness areas in Africa. Intact ecological and biological processes create important habitats for a wide variety of species. The reserve contains a huge diversity of plant species, including acacia-clad hillsides, gallery forests,<sup>13</sup> swampland forests and lowland tropical forests. The dominant vegetation in the reserve is deciduous miombo forest, which UNESCO has declared a globally important example of its type. The reserve is unusually biodiverse. More than 2,100 plant species have been identified, and it is presumed that the remote forest areas in the southern part of the reserve contain even more species.

The Reserve is renowned for its large-mammal populations, many of which are included in the IUCN's red list of globally endangered species, such as the African elephant (*Loxodonta africana*), listed as vulnerable; the black rhino (*Diceros bicornis*), listed as critically endangered; and the African wild dog (*Lycaon pictus*), listed as endangered. It has one of the world's largest known populations of hippopotamus (*Hippopotamus amphibius*) and buffalo (*Syncerus caffer*), and significant populations of ungulates, such as the sable antelope (*Hippotragus niger*), Lichtenstein's hartebeest (*Alcelaphus buselaphus lichtensteinii*), greater kudu (*Tragelaphus strepsiceros*), eland (*Taurotragus oryx*) and Nyassa wildebeest (*Connochaetes taurinus johnstoni*). A large number of Nile crocodile (*Crocodilus niloticus*) and 350 species of birds, such as the endemic Udzungwa forest partridge (*Xenoperdix udzungwensis*) and the rufous winged sunbird (*Cinnyris rufipennis*) are also found in the reserve. Due to the high density and diversity of species, UNESCO has designated the Selous Game Reserve a natural habitat of outstanding importance for the conservation of biological diversity.<sup>14</sup>

<sup>12</sup> Image presented in Tanzanian Affairs 1. September 2018, *Government defends Stiegler's Gorge Dam Project* <https://www.tzaffairs.org/2018/09/government-defends-stieglers-gorge-dam-project/>

<sup>13</sup> Gallery forests are narrow belts of woodland growing along riverbanks and wetlands in otherwise treeless landscapes (eg savannas).

<sup>14</sup> The justification in relation to criteria (ix) and (x) are based on the World Heritage Committee's adoption of retrospective statements of outstanding universal value, Decision 34 COM 8E (see documents WHC-10/34.COM/20, pp. 252-253, and WHC-10/34.COM/8E, pp. 14-15).

Water flow in the Rufiji River fluctuates significantly between the seasons and within individual seasons. The dynamic of the Rufiji River contributes to exceptionally species-rich habitats downstream of Stiegler's Gorge. Here, the river forms large meanders that also fill lakes and wetlands. In the dry season, the water flow is sustained in core areas of the river and wetlands, while the dry areas are flooded in the rainy season to form lakes and streams. These strips of wetlands and tropical vegetation contribute to the reserve's biodiversity. Large swathes of the tree-clad grasslands in the north of the Selous Game Reserve are periodically flooded by the rising waters of the Rufiji River, which creates a dynamic ecosystem. Frequent fires in the dry season mean that the soil erodes easily in periods of heavy rain. This creates a network of normally dry streambeds that become raging torrents in the rainy season. These "sand rivers" are a unique feature of the Selous landscape. The Rufiji River also feeds the Tagalala and Manza lakes. Although there are other rivers that feed into these lakes, they do not survive in the dry season. The Rufiji River therefore plays a vital role in maintaining the water level in these lakes. In general, the wetlands surrounding the river form ecological hotspots, which animals rely on in the dry season.

## 2.4 The World Heritage Committee's comments and objections

UNESCO's Convention Concerning the Protection of the World Cultural and Natural Heritage aims to protect places of universal value to the whole of humanity.

Established in 1905, the Selous Game Reserve was designated as a UNESCO Natural World Heritage Site in 1982. The reserve is inscribed under the World Heritage Convention,<sup>15</sup> and its outstanding universal value relates to ecological and biological processes as well as its importance for the conservation of biodiversity.

At the time of inscription as a world heritage site in 1982, the Selous Game Reserve was considered to be sufficiently large to absorb a great deal of pressure. However, pressures and threats to it have increased over time. The World Heritage Committee has repeatedly, and ever stronger terms, expressed its concerns about the threats facing the reserve, including the Stiegler's Gorge Hydropower Project. The Selous Game Reserve was placed on the list of World Heritage Sites in Danger in 2014.<sup>16</sup>

In 2011, the World Heritage Committee urged Tanzania's government to "abandon plans for the different development projects which are incompatible with the World Heritage Status of the property, in particular the Stiegler's Gorge dam".<sup>17</sup> Similar statements have been reiterated each year, due to the likelihood that a dam will cause serious and irreversible damage to the outstanding universal value of the site. In its most recent decision from 2018, the Committee expresses "its grave concern about the State Party's decision to develop the Stiegler's Gorge hydropower project, and in particular the tendering of logging rights for 143,638 ha within the property." Logging rights have been granted in the hydropower project area and are intended to prepare for the project's construction.<sup>18</sup> The Committee considered

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<sup>15</sup> Under UNESCO's World Heritage Convention, outstanding universal values are defined as cultural and/or natural values that are of such importance that they go beyond national borders, constituting a shared heritage for the whole of humanity – both living and future generations, <https://whc.unesco.org/en/conventiontext/>

<sup>16</sup> Decisions adopted by the World Heritage Committee at its 38<sup>th</sup> Session (2014), Decision 38 COM 7B.95, Selous Game Reserve (United Republic of Tanzania) (N 199bis)

<sup>17</sup> Decisions adopted by the World Heritage Committee at its 35<sup>th</sup> Session. Decision 35 COM 7B.6. Document WHC-11/35.COM/20.

<sup>18</sup> See e.g. IUCN, 27 June 2018: Tanzania urged to halt logging plans and dam project in Selous Game Reserve, as advised by IUCN, <https://www.iucn.org/news/iucn-42whc/201806/tanzania-urged-halt-logging-plans-and-dam-project-selous-game-reserve-advised-iucn>

that such large-scale deforestation was a clear potential threat to the site and decided to add this issue to the reasons for its continued inclusion on the list of World Heritage in Danger.

Throughout the period, the Committee has underlined “the incompatibility of the Stiegler’s Gorge dam project with the World Heritage status of the property.”<sup>19</sup> This is in line with the Committee’s general view that “the construction of dams with large reservoirs within the boundaries of World Heritage properties is incompatible with their World Heritage status.” The Committee urged the authorities “to consider alternative options to meet its power generation needs.”<sup>20</sup>

In the final communique from the World Heritage Committee’s meeting in July 2019, the World Heritage Centre once again recommends that the Committee “reiterates its utmost concern” with regard to the decision to build the Rufiji hydropower plant in the world heritage site, and points to the Committee’s previous position on this matter.<sup>21</sup> According to the World Heritage Centre, the deforestation of an area extending over 1,000 km<sup>2</sup> (corresponding to the area to be covered by the reservoir) will in all probability cause irreversible damage to its outstanding universal value “and hence fulfill the conditions for deleting the property from the World Heritage List.”<sup>22</sup>

Given that the hydropower project is to be built by two Egyptian companies, the World Heritage Centre has raised the matter with the Egyptian authorities “to express serious concern about the State Party of Egypt’s support to the project, recalling Article 6.3 of the Convention.”<sup>23</sup> According to Article 6.3, states that are party to the convention have a duty to avoid measures that directly or indirectly harm the world’s shared heritage.<sup>24</sup>

The World Heritage Centre also points to the preamble to the World Heritage Convention, which deems that “deterioration or disappearance of any item of the cultural or natural heritage constitutes a harmful impoverishment of the heritage of all the nations of the world.” It further recommends the World Heritage Committee to agree that it “also regrets the support provided by the State Party of Egypt to the RHPP [Rufiji Hydropower Project], which may cause irreversible damage to the property and its OUV [outstanding universal values], and reminds all States Parties and private investors not to support projects that may damage World Heritage properties.”

### 3 Environmental impact

The project’s environmental impact has been assessed by the Institute of Resource Assessment at the University of Dar es Salaam in partnership with Tanzania Electric Supply Company Limited (TANESCO), the company behind the project. According to the assessment report, the dam and the hydropower plant are situated “within SGR most extensive

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<sup>19</sup> Analysis and Conclusion by World Heritage Centre and the Advisory Bodies in 2014, <https://whc.unesco.org/en/soc/2898>

<sup>20</sup> Decisions adopted by the World Heritage Committee at its 41<sup>st</sup> Session (2018). Decision 42 COM 7A.56. Document WHC/18/42.COM/18.

<sup>21</sup> World Heritage Committee’s 43th Session (2019). *Item 7A of the Provisional Agenda: State of conservation of the properties inscribed on the list of World Heritage in Danger*. Document WHC/19/43.COM/7A.Add.2, <http://whc.unesco.org/archive/2019/whc19-43com-7AAdd2-en.pdf>.

<sup>22</sup> See footnote 21, p.4.

<sup>23</sup> See footnote 21, p.4.

<sup>24</sup> UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage.

and pristine area where accessibility is limited to few locations due to challenging terrain, wilderness, and absence of roads and presence of several rivers which no roads or trucks cross.”<sup>25</sup>

However, the environmental impact assessment is vague about the project’s environmental impact. The IUCN has evaluated the professional quality of the impact assessment against international standards, including the International Finance Corporation’s Performance Standards.<sup>26</sup> Elsewedy has engaged a firm of consultants to perform a similar evaluation.<sup>27</sup> Both evaluations conclude that the impact assessment lacks baseline data for biodiversity (a register of species, for example), social conditions and the physical environment. As a result, neither the environmental nor the social consequences of the project have been adequately assessed.

In a comment to the Council on Ethics, Elsewedy’s consultant stated: “The information used [in the updated EIA] does not provide a credible evidence base for assessing impacts or for identifying appropriate mitigation. Fundamental hydrological data is more than 30 years old, which is inappropriate given the scale of land-use change in the Rufiji basin in that period. Some critical information is missing entirely, including information on aquatic biodiversity, a modern environmental flows (eFlows) assessment and an assessment of the effects of land-use and climate change in the Rufiji basin on flow regimes.” The statement continued: “The EIA does not include a systematic, logical, spatially explicit or quantified assessment of ecological, social or physical impacts.”<sup>28</sup> Elsewedy’s consultant concluded that “due to the lack of comprehensive baseline data, a robust assessment of direct, indirect and cumulative impacts cannot be assessed properly at present.”<sup>29</sup>

The IUCN’s evaluation also reveals that no detailed assessment has been made of the project’s impact on the world heritage site’s outstanding universal values, key to which is its pristine wilderness.<sup>30</sup> There is no doubt that the hydropower project will have a massive impact on the Selous Game Reserve, through the inundation of vast areas and the construction of infrastructure. Following a field trip to the reserve, the World Heritage Centre and the IUCN concluded in 2014 that “possible construction would constitute a fundamental modification of SGR and would amount to nothing less than the end of the property’s status as an iconic ‘wilderness’ area.”<sup>31</sup> This was repeated after a new visit in 2017: “The project is fatally flawed because of its unacceptable impacts on: (i) the OUV of the property; and (ii) downstream land-uses, commercial fishing and agricultural industries, and the livelihood of communities.”<sup>32</sup>

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<sup>25</sup> Institute of Resource Assessment University of Dar es Salaam and Tanzania Electric Supply Company Limited: *Updated Environmental Impact Assessment Report for 2100MW Power Generation from the Rufiji Hydropower Project in Selous Game Reserve Pwani and Morogoro regions, Tanzania*, 18 October 2018.

<sup>26</sup> IUCN 2019: *Technical review of the Environmental Impact Assessment for the Rufiji Hydropower Project in Selous Game Reserve, Tanzania*. April 2019. Gland, Switzerland, <https://portals.iucn.org/library/node/48425>.

<sup>27</sup> Elsewedys consultant: *Comments to the Council on Ethics Draft recommendation to exclude Elsewedy Co from the Norwegian Government Pension Fund*, 31. May 2019.

<sup>28</sup> See footnote 26.

<sup>29</sup> See footnote 27.

<sup>30</sup> The inscription of the world heritage site states that the “*Selous Game Reserve is one of the largest remaining wilderness areas in Africa, with relatively undisturbed ecological and biological processes.*”

<sup>31</sup> UNESCO World Heritage Centre/IUCN 2014: *Reactive Monitoring Mission Selous Game Reserve, United Republic of Tanzania* 02-11 December 2013, s. 31, <https://whc.unesco.org/en/documents/129161/>

<sup>32</sup> IUCN 2017: *Reactive Monitoring Mission. Selous Game Reserve World Heritage site, United Republic of Tanzania*, 8-15 February 2017, s. 18, <https://whc.unesco.org/en/documents/157708>

Since the Selous Game Reserve is functionally linked to other areas of wild nature in Tanzania and the Niassa National Park in northern Mozambique, the project will probably also cause environmental impacts far outside the reserve itself. Affected areas include national parks, the Ramsar Wetlands and other nearby forest and game reserves. Large, intact ecosystems in this part of the world are extremely old, and have a high level of dynamic stability. This stability is based on the natural variations that have established themselves over this long period. The ecosystem's age contributes significantly to its rich biodiversity, which is finely tuned to local conditions. Changes in the rate of water flow, erosion, seasonal variations in plant cover, access to migration corridors, etc, that go beyond the ecosystem's normal patterns of variation could cause parts of it to collapse.

#### *Loss of habitats due to inundation*

The entire reservoir, which will cover an estimated area of 900–1,200 km<sup>2</sup>, is located within the Selous Game Reserve and World Heritage Site. This will probably be the largest reservoir of water in the region and will result in loss of the Rufiji River's existing fluvial habitats and of large areas of terrestrial habitats. The dam and reservoir will be a barrier to any upstream fish migration and will block established migration routes for many animal species.

The report from the on-site inspection performed by the World Heritage Centre and the IUCN in 2013 points to the loss of and harm to terrestrial habitats, including rare canyon habitats and important living spaces for critically endangered species, such as black rhinos. Aquatic biodiversity will probably be reduced, and a large number of land animals will be displaced. This in turn will cause population decline due to the loss of available habitat. Furthermore, the reservoir is scheduled to take three years to fill up completely. During that time animals which have sought refuge on pockets of higher ground will probably drown when the water rises high enough to submerge them.

No species registration has been carried out, nor has an assessment been made of the consequences the inundation will have for migration routes, endangered species or habitats.

#### *Impacts on habitats downstream of the dam*

The dam and reservoir will result in major changes to the natural flow of water and sediment transportation in the Rufiji River. The areas that will be affected downstream of the dam are partly within the world heritage site and partly between the world heritage site and the Indian Ocean. The operational regime for the power station, the reservoir and its water level will determine the projects impact on water flow. Sedimentation processes will change significantly due to the very size of the reservoir, irrespective of the measures implemented to mitigate the damage. The company's consultant told the Council on Ethics that "the altered downstream flow regime will inevitably change floodplains along the river and within the delta where, especially during low-flow periods, saltwater intrusion will increase. This was naturally avoided or mitigated due to the sediment transport regime that accumulated along the river-edge and in the delta region, but as the sediment transport regime is impeded due to the dam, this natural erosion control will not be effective any longer."<sup>33</sup>

The floodplains downstream from the dam form extremely species-rich habitats. Changes in the water flow and seasonal flooding patterns will affect the delta, the mangrove forest (the largest in East Africa), coastal areas, wetlands and fluvial plains, and could result in a breakdown in the connectivity between lakes and wetlands. It is therefore probably that a

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<sup>33</sup> Elsewedy's consultant: *Comments to the Council on Ethics Draft recommendation to exclude Elsewedy Co from the Norwegian Government Pension Fund*, 31. May 2019.

substantial area of terrestrial, freshwater and marine habitats will be affected by the project.<sup>34</sup> The extent to which the project will undertake hydropeaking will affect the scale of the impact.

So far, no assessment has been made of changes in water flow on flora, fauna, habitats or ecosystem services that the population downstream of the dam depend on. “As such, the environmental and socio-economic consequences of these impacts have not been considered at present or they are underestimated in terms of impact extent and/or magnitude due to missing robust data to properly assess negative risks and impacts.”<sup>35</sup>

#### *Disturbance during construction, fragmentation due to infrastructure and population growth*

Many animal species are sensitive to disturbance, such as the presence of people, noise, artificial light and pollution. Deforestation in the reservoir area, the excavation of large quantities of soil and rock, drilling and blasting work, roadworks and the construction of power lines will reduce and fragment available habitats in the surrounding area, particularly while the project is under construction.

Roads, construction work and the transport of building materials will open up areas not just to an influx of people and the illegal exploitation of resources, but also to the introduction of non-native species, many of which reproduce quickly and can be difficult to eradicate. In addition to the actual dam and reservoir, infrastructure covering an area of approx. 150 km<sup>2</sup> will be required both during the construction period and once the project is operational. Practically all of this will lie within the confines of the world heritage site.

During the construction period, it is estimated that a workforce of approximately 5,000 people will be needed. According to Elsewedy, the construction site will be fenced in, with access strictly controlled. Once the project goes into operation, however, its impact will depend on population growth in the area and whether it has resulted in unlawful settlements, increased poaching and unlicensed fishing in the area around the reservoir.

## **4 Information from the company**

### **4.1 The Council on Ethics’ contact with the company**

In March 2019, Elsewedy responded to the Council on Ethics’ request for information about the company’s role and responsibilities in the joint venture with Arab Contractors and sent a copy of the updated environmental impact report for the project. See Chapter 3.

The company has commented on the Council’s draft recommendation to exclude it from the GPFG. In addition, the company’s consultant has commented on the project’s environmental impact assessment. The company has also provided extensive information about the project, the joint venture and what it plans to do to reduce the project’s negative consequences.

The Council on Ethics held a meeting with the company in May 2019, which was also attended by the company’s consultant.

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<sup>34</sup> WWF 2017: *The True Cost of Power. The Facts and risks of Building Stiegler’s Gorge Hydropower Dam in Selous Game Reserve, Tanzania*, <https://www.worldwildlife.org/publications/the-true-cost-of-power-the-facts-and-risks-of-building-stiegler-s-gorge-hydropower-dam-in-selous-game-reserve-tanzania>

<sup>35</sup> See footnote 33.

## 4.2 The company's response to the Council on Ethics

In its response, Elsewedy stated that it led the joint venture's contract negotiations.<sup>36</sup> According to the contract, the joint venture has complete responsibility for the design and execution of the project.

The company said it was aware of the Selous Game Reserve's protected status, but took the view that the national authorities have a sovereign right to decide how the country's natural resources should be exploited, and that projects may, in principle, be carried out anywhere, as long as the licensing terms and other legal, environmental and technical conditions are met. At the same time, Elsewedy wrote that "the Environmental concerns at stake are greater than initially expected and that rigorous, active and dynamic environmental plans are required in order to mitigate the environmental risks involved or offset the effect of those that are unavoidable."<sup>37</sup>

As previously mentioned, the company has engaged experts to evaluate the environmental impact assessment and to consider which studies, initiatives and strategies are necessary to minimise the project's environmental and social consequences. According to Elsewedy, even if the Tanzanian authorities decided to remove the Selous Game Reserve from the list of World Heritage Sites, it would not affect the project. "[...] our commitment to the environment is a core value that is not affected by the site-listing as a World Heritage Site."

Elsewedy emphasised that if the company were to pull out of the project now, the authorities could speed up its realisation using a less environment-conscious supplier. "The Company now is the best option to save the environment and minimize risks and implementing offsetting plans in its unique position as part of the Contractor's JV. As we are all aware now that all international efforts to stop the Project until all studies have been finalized have failed, which makes our point here very valid and the only option to realize any efficient, responsible approach to mitigate the risks foreseen on the environment."

Elsewedy maintained that it had already altered the project's design and had carried out studies to reduce its environmental harm. In addition, the company's consultant recommended that in-depth and wide-ranging baseline studies of environmental and socioeconomic conditions be undertaken. These studies must be performed over time to include seasonal variations. This will also form a basis for further assessments, such as environmental flow assessments, studies of the basis for local people's subsistence, the impact of population growth in the area, etc. Such data will provide a better foundation for evaluating the project's various consequences, and thereby influence the choice of damage-limitation measures. "Consequently, the findings will inform the development of a suite of Environmental and Social Management Plans that will provide ELSEWEDY with comprehensive and pragmatic management prescriptions for the construction phase of the Project."<sup>38</sup>

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<sup>36</sup> Project Managing Director, Project Technical Director and Project HSE Manager

<sup>37</sup> Letter to the Council on Ethics, dated 1 June 2019.

<sup>38</sup> Elsewedy's consultant: *Comments to the Council on Ethics' draft recommendation to exclude Elsewedy Electric Co from the Norwegian Government Pension Fund*, 31 May 2019.

## 5 The Council on Ethics' assessment

The Council on Ethics has assessed whether there is an unacceptable risk that Elsewedy, through its participation in the Stiegler's Gorge Hydropower Project in Tanzania, is contributing to or is itself responsible for serious environmental damage.

Elsewedy is one of two partners in the joint venture which is contracted to build the hydropower project. Although Elsewedy has a 45 per cent stake in the joint venture, the Council takes the position that the company has significant influence over the project, given that it chairs the JV's board, that board decisions must be unanimous and that the company has furnished the project management team and fills other key positions in the project.

The entire Project is located within the Selous Game Reserve – a UNESCO World Heritage Site in Danger. The Council attaches importance of the fact that the reserve is one of the largest remaining wilderness areas in Africa and is considered of outstanding global importance for the preservation of biodiversity. The reserve is home to many of Africa's iconic mammals, such as elephants, rhinos, giraffes, buffalo and antelope, and has an extraordinary wealth of plant and animal species. Many of them are endemic and several are endangered. With no permanent settlements inside its boundaries, human disturbance has been low. Equally important for the Council is the fact that UNESCO has repeatedly over a period of more than ten years, and in increasingly strong terms, expressed grave concern over the planned dam construction within the world heritage site, because of the potential damage to the its outstanding universal value.

The construction of a 130 m high dam and an associated reservoir covering a surface area of up to 1,200 km<sup>2</sup>, infrastructure, roads and power lines will undoubtedly cause massive and irreversible changes to what has hitherto been a practically pristine natural landscape. To this must be added the disturbances and effects of the construction work itself. At the same time, the Council on Ethics notes that the project's environmental impacts have not been thoroughly assessed. Experts engaged by the company and the IUCN have both judged the existing environmental impact assessments to be incomplete and inadequate, and deemed them non-compliant with recognised international standards. As far as the Council has been able to ascertain, no baseline data exists for biodiversity, habitats, migration routes, water flow, downstream ecosystems, etc, for the areas that will be affected by the project. Nor has any assessment been made of how the project will affect other protected areas to which the Selous Game Reserve is connected. The Council finds that insufficient knowledge of existing environmental values and what will be lost as a result of the project amplify the risk that serious environmental damage will be done. This is particularly grievous in areas of extraordinary importance for biodiversity, not only locally but globally.

Elsewedy has found it necessary to obtain more data and information to enable it to reduce the project's environmental impact, and the company is willing to pay the associated costs. It will also make changes to the project's design to reduce its environmental impact. The Council finds it laudable that the company plans to execute the project as circumspectly as possible. However, Elsewedy has always been aware of the Selous Game Reserve's protected status, and UNESCO's position on this has been known publicly for more than a decade. Elsewedy can therefore not have been unaware of the environmental risks this project entails, yet has still decided to participate in its realisation.

The Council attaches considerable importance to UNESCO's assessment that the hydropower project will cause widespread and irreversible damage to the world heritage site's outstanding universal values, that mitigation measures will reduce this impact to only a negligible extent and that the deforestation currently taking place in the reservoir area is, in and of itself,

sufficient to cause the Selous Game Reserve to be delisted as a World Heritage Site. The Council has also noted that IFC does not support projects in world heritage areas.

The Council therefore concludes that construction of hydropower facilities on the scale envisaged at Stiegler's Gorge and in a World Heritage Site in Danger constitutes serious environmental damage.

## 6 Recommendation

The Council on Ethics recommends that the company Elsewedy Electric Co be excluded from investment by the Government Pension Fund Global (GPFG) due to an unacceptable risk that the company is contributing to or is responsible for serious environmental damage.

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Johan H.  
Andresen  
Chair

(sign.)

Hans Chr. Bugge

(sign.)

Cecilie  
Hellestveit

(sign.)

Trude  
Myklebust

(sign.)

Brit K. S.  
Rugland

(sign.)