COUNCIL ON ETHICS

THE GOVERNMENT PENSION FUND GLOBAL

To the Ministry of Finance

3 December 2012

UNOFFICIAL ENGLISH TRANSLATION

Recommendation to exclude Ta Ann Holdings Berhad from the investment universe of the Government Pension Fund Global

Contents

1	Summary	1
2	Introduction	2
	2.1 What the Council has assessed	2
	2.2 Sources	5
3	Background	5
	3.1 Company background	5
	3.2 Ta Ann's logging and plantation licences in Sarawak	5
4	Environmental impact of Ta Ann's operations	7
	4.1 Loss of biodiversity and habitats	7
	4.2 Re-entry logging without an EIA	11
5	Information provided by the company	12
	5.1 Ta Ann's contact with the Council	12
	5.2 Ta Ann's position	12
6	The Council on Ethic's assessment	16
7	Recommendation	19

1 Summary

The Council on Ethics for the Norwegian Government Pension Fund Global (GPFG) recommends the exclusion of the Malaysian company Ta Ann Holdings Berhad (Ta Ann) from its investment universe due to an unacceptable risk of the company being responsible for severe environmental damage.

Ta Ann is a logging and plantation conglomerate that is involved in the logging and conversion of tropical forest into oil palm and timber plantations. Its principal operations are located in Sarawak in Borneo, Malaysia. Ta Ann also runs plantations and sawmills in Tasmania, Australia.

The Council has assessed the environmental impact of the logging and clearing of forests in Ta Ann's licence areas in Sarawak. In its assessment, the Council has emphasised the scale of the damage and to what extent it has long-term and irreversible impacts, whether the damage is a result of violations of national laws or international norms, and what the company has done to mitigate impacts. The Council has focused particularly on the extent to which the company's licence areas overlap with areas containing important ecological values, and what consequences the conversion of forest will have for endangered species and their habitats.

The Council has communicated with Ta Ann on several occasions since 2010, and the company has provided documents pertinent to the licence areas. Nevertheless, the recommendation is based on limited information, as the company has not provided details of important aspects of its operations.

Ta Ann's timber licence areas cover 360,000 hectares, of which more than 300,000 hectares overlap with plantation licenses. At least one-third of this area, and probably more, will be cleared and converted to acacia plantations and oil palm plantations. A third of Ta Ann's licence areas are situated within the Heart of Borneo, and all of the licences overlap with the Sundaland Biodiversity Hotspot, which is considered to be one of the most biodiverse regions on earth. Ta Ann's own environmental impact assessments show that the forest contains important ecological values and is home to a number of protected species, including many on the red list of threatened species maintained by the International Union for Conservation of Nature. These species are declining quickly because their habitats are disappearing due to logging and the conversion of forests into plantations. In the Council's view, there can be no doubt that the destruction of more than 100,000 hectares of tropical rainforest in one of the world's most biodiverse regions will have serious, irreversible consequences for biodiversity and the ecosystem services delivered by the forest. The Council considers it likely that the remaining forest will also be strongly affected due to edge effects and the increased fragmentation of forests and habitats.

Ta Ann has pointed out that the company is implementing a number of measures to reduce environmental damage. For example, the company has stated that better planting methods mean the removal of less forest. The company has also emphasised that buffer zones along waterways are being set aside as wildlife corridors, that logging is avoided in steep terrain, and that biologically important areas are being protected. The Council considers it positive that Ta Ann is taking such steps, which indicate that the company is seeking to steer its operation in a more environmentally friendly direction.

The Council is nevertheless of the opinion that these measures appear insufficient to protect the habitats of endangered species and ecosystems. Even though patches of forest, buffer zones along waterways and wildlife corridors are important for biodiversity and ecological functions locally in these areas, the Council does not regard it as proven that the areas that are being set aside will in fact function as sustainable habitats for endangered or wide-ranging species, or that they will

help to maintain the rich biodiversity that has been documented in the licence areas. The Council has also given weight to the documented risk that orangutans and other endangered species may have their habitats in Ta Ann's licence areas. Two of the company's licence areas border on the Lanjak Entimau Wildlife Sanctuary. In the Council's opinion, this proximity to the sanctuary demands that a precautionary approach be taken. The surveys conducted by Ta Ann appear to lack the systematic approach needed to confirm that Ta Ann's operations will not destroy valuable habitats. The Council takes the view that this increases the risk of severe environmental damage.

The Council considers it positive that Ta Ann conducts surveys of conservation values in forest areas before logging. The Council has only had access to one such report, relating to two coupes. The report does not make it clear how the conservation values were identified, or how they are evaluated in a larger landscape context. Based on the information Ta Ann has provided to the Council, the Council finds it unlikely that the assessments undertaken by Ta Ann ensure the protection of important conservation values.

Given that the conversion of tropical forests involves the complete, irreversible alteration of affected ecosystems, that the scale of deforestation is large, and that these operations are being pursued in areas with a particularly rich biodiversity as regards species, habitats and ecosystems, the Council has concluded that the measures implemented by Ta Ann to reduce the adverse effects are insufficient to secure a material reduction in the risk of severe environmental damage now and in the future. The Council therefore recommends the exclusion of Ta Ann Holdings Berhad from the investment universe of the GPFG.

2 Introduction

At its meeting in April 2010, the Council on Ethics decided to assess the Fund's investment in Ta Ann against the Guidelines For the observation and exclusion of companies From the GPFG's investment universe (the Ethical Guidelines) ¹.

As of 31 December 2011, the GPFG owned 1,738,212 shares in the company worth USD 3.15 million.

2.1 What the Council has assessed

The Council on Ethics has assessed whether there is an unacceptable risk of Ta Ann being responsible for severe environmental damage pursuant to section 2(3)(c) of the Ethical Guidelines.

In previous recommendations regarding severe environmental damage, the Council has given particular emphasis to whether:²

- the damage is significant;
- the damage has irreversible or long-term effects;
- the damage has a considerable negative impact on human life and health;

¹ Herafter the Ethical Guidelines, http://www.regjeringen.no/en/sub/styrer-rad-utvalg/ethics_council/ethical-guidelines.html?id=425277.

² In previous recommendations, the Council has elaborated on hte criteria for severe environmental damage, see for example the Council's recommendations concerning Freeport McMoRan and Samling Global, available at www.etikkradet.no

- the damage is a result of violations of national laws or international norms;
- the company has neglected to act to prevent the damage;
- the company has implemented adequate measures to rectify the damage; and
- it is probable that the company's unacceptable practice will continue.

In the present draft recommendation, the Council has focused particularly on the environmental damage associated with Ta Ann's logging and clearing of tropical forest in Sarawak, Malaysia.

The Council has not considered Ta Ann's alleged close links with Sarawak's Chief Minister Taib, who is currently being investigated for corruption and money laundering in several countries. Nor has the Council considered claims by the Penan people that Ta Ann, in some of its licence areas, is operating in territories belonging to this indigenous people group without having obtained their informed consent.

Environmental damage associated with the logging and clearance of tropical forests

The commercial logging and conversion of tropical forest into plantations is considered to be one of the greatest threats to ecosystems and biodiversity, and contributes significantly to greenhouse gas emissions. According to the Intergovernmental Panel on Climate Change, deforestation and forest degradation contribute to some 17 per cent of global greenhouse gas emissions.³

In Sarawak, companies require a licence to convert rainforest into plantations (called a "license for planted forest" or "oil palm plantation license"). Conversion involves trees being felled and other vegetation being removed (deforestation), so that the land can be used to establish plantations for the production of palm oil, timber or other crops. The amount of vegetation removed in a licence area will depend on factors such as topography and planting methods. The clearance of rainforest is considered to have devastating effects on biodiversity, natural habitats and ecosystem services. Plantations are monocultures which are of little ecological value compared to tropical rainforests.

The southern and eastern parts of Sarawak is part of an area called the "Heart of Borneo", a WWF initiative supported by the authorities in Indonesia, Malaysia and Brunei, who have all committed to managing the area in a sustainable manner. The area

'is the largest transboundary tropical forest expanse remaining in South East Asia. Home to an astounding 6 per cent of the world's total biodiversity, from the orangutan to the world's largest flower, and containing the headwaters for 14 of Borneo's 20 major rivers, it is one of the richest treasure-houses on the planet. More than 600 new species have been discovered within the Heart of Borneo since 1995, an average of 3 per month.'

Initially, the "Heart of Borneo" zone covered more than 75 per cent of Ta Ann's licence areas. However, at the request of the Sarawak government, the boundaries of the Heart of Borneo were

⁴ WWF 2010: Financing the Heart of Borneo: A Partnership Approach to Economic Sustainability, Oct 2010, available at http://assets.panda.org/downloads/sustainable-financing-hob.pdf.

³ IPCC 2007: Fourth Assessment Report: Climate Change 2007: available at http://www.ipcc.ch/publications and data/publications and data reports.shtml. This estimate has been reduced in a new study dated 2012, which has calculated that deforestation of tropical forest accounted for around 10 per cent of global greenhouse gas emissions in the period 2000–2005, see N. L. Harris, S. Browm, S. C. Hagen, S. S. Saatchi, S. Petrova, W. Salas, M. C. Hansen, P. V. Potapov, A. Lotsch. Baseline Map of Carbon Emissions from Deforestation in Tropical Regions. Science, 2012; 336 (6088): 1573 DOI: 10.1126/science.1217962.

adjusted to exclude some forest licences,⁵ and Ta Ann has informed the Council that the Heart of Borneo area now covers 35 per cent of the company's licence areas (see Figure 3).⁶

Sarawak is also part of the Sundaland Hotspot. A hotspot is characterised by an exceptional biodiversity, by a high level of endemic species (at least 0.5 per cent or 1,500 of the world's plant species), and by being threatened by ongoing and rapid habitat loss. To be a hotspot, a region must have lost 70 per cent or more of its primary vegetation. The Sundaland Hotspot contains 25,000 plant species, of which 60 per cent are not found anywhere else in the world. Some 100,000 km² remain of the original vegetation cover of 1.5 million km². A large number of birds, mammals and amphibians are threatened by extinction. The destruction of habitats through commercial logging and the conversion of forests into plantations is the greatest threat to this hotspot.

Sarawak's deforestation rates are among the highest in the world. Between 2005 and 2010, about 10 per cent, or more than 865,000 hectares, of the state's forests were cleared. This is more than three times the deforestation rate for the whole of Asia over the same period, and is one of the highest tropical deforestation rates anywhere in the world.¹⁰

The UN, the World Bank and national governments have recognised the need to reduce deforestation and forest degradation, for example through the establishment of the United Nations Collaborative Initiative on Reducing Emissions from Deforestation and Forest Degradation (REDD and REDD+), which is supported by the World Bank and others. The Norwegian Government has also given support to these initiatives, allocating up to NOK 3 billion a year to efforts to reduce greenhouse gas emissions from deforestation in developing countries. In these efforts, the Government also emphasises the need for conservation and sustainable development. 11

The Council's point of departure is that the tropical rainforests of Borneo are among the most biodiverse ecosystems on earth. In addition to supporting this biodiversity and providing habitats for many endangered species, the tropical rainforest also plays an important role in providing vital fundamental ecosystem services, such as carbon storage, watershed protection and soil stabilisation. Tropical forests are important for the state of the global environment, and logging and forest conversion are a major threat to their future existence. Considering the many international and national initiatives to reduce deforestation and forest degradation, the Council has assessed the environmental damage associated with the logging and clearing of tropical forests. In its assessment, the Council has emphasised the scale of the logging and clearing, the extent to which the company's licence areas overlap with areas containing high ecological values, and the consequences of forest conversion for endangered species and their habitats.

_

⁵ Confirmed at a meeting with the Heart of Borneo Initiative in Jakarta on 10 October 2011.

⁶ Ta Ann's reply to the Council on Ethics' draft recommendation of 14 May 2011.

⁷ More information about the Sundaland Hotspot is available at Conservation International: http://www.conservation.org/where/priority_areas/hotspots/asia-pacific/Sundaland/Pages/default.aspx.

⁸ Endemic species are prevalent in or peculiar to a particular locality or region.

⁹ The concept "Hotspot" was introduced by the biologist Norman Myers in 1988. Information on Biodiversity Hotspots is available at the Conservation International website: http://www.conservation.org/WHERE/PRIORITY_AREAS/HOTSPOTS/Pages/hotspots_main.aspx.

Comparison with annual deforestation country data for 2000–2010 in FAO 2011: State of the World's Forests. The annual deforestation rate in both Brazil and Indonesia, for instance, was 0.5 per cent during this period, compared with an average rate of 2 per cent for Sarawak. Close to 10 per cent of the forest and 1/3 of the peatlands in Sarawak were lost in this period, see Sarvision 2011: Impact of oil palm plantations on peatland conversion in Sarawak 2005–2010, http://www.wetlands.org/Portals/0/publications/Report/Malaysia% 20Sarvision.pdf.

¹¹ The Government's International Climate and Forest Initiative: http://www.regjeringen.no/en/dep/md/Selected-topics/climate/the-government-of-norways-international-/why-a-climate-and-forest-initiative.html?id=547202.

2.2 Sources

Limited public information is available on Ta Ann's forest operations. At the request of the Council, however, Ta Ann has provided a number of documents, including copies of environmental impact assessments for two licences, selected individual coupe maps, permits to enter coupes, harvesting plans, tree planting plans and a forest management plan, as well as information about the company's sustainable forest management practices, including one High Conservation Value Forest (HCVF) assessment report covering two coupes in one licence area. The Council has also obtained publicly available documents from the library of the Natural Resources and Environment Board (NREB) in Kuching and Sibu in Sarawak.

The Council has twice sent its draft recommendation to Ta Ann for comment, in March 2011 and September 2012. Ta Ann responded extensively to the first draft, and provided the Council with additional information. Members of the Council's secretariat met with representatives of Ta Ann in Sibu in October 2011, and also participated in a one-day field visit to Ta Ann's LPF/0010 licence near Song.

The recommendation is primarily based on the sources mentioned above and referred to in footnotes.

3 Background

3.1 Company background

Ta Ann is a Malaysian logging and plantation conglomerate, founded in the mid-1980s and listed on the *Bursa Malaysia* in 1999. Ta Ann is among the five largest logging and plantation companies in Malaysia. In addition to logging, the company is converting large forest areas into plantations for the production of timber and palm oil. Its principal operations are located in Sarawak in Borneo, Malaysia. In 2007, the company expanded overseas, setting up plantations and sawmills in Tasmania, Australia.¹²

3.2 Ta Ann's logging and plantation licences in Sarawak

Ta Ann is a holding company, and all of its logging and plantation operations are conducted by 100 per cent subsidiaries, which also hold the related licences. Ta Ann's current licences are listed in Table 1 below.

Timber licences (T/) cover areas where Ta Ann is permitted to carry out selective timber logging. ¹³ Ta Ann currently has five timber licences covering around 350,000 hectares. Two of these licences overlap wholly or partly with Ta Ann's licences for planted forests (LPF/), where the forest will be cleared after the commercially valuable timber has been logged (see Figure 1 below).

¹² Ta Ann's website: www.taann.com.my.

¹³ Selective logging means that only trees of a certain type and exceeding a specified minimum size may be logged.

Ta Ann cuts timber in all of its timber licences, with the exception of the Borlin licence, T/0342, and has also begun converting forests falling under the plantation licences. Ta Ann's plantation licenses cover an area of more than 300,000 hectares. About half of this area is plantable. ¹⁴

Ta Ann also holds licences for oil palm plantations corresponding to an area of around 66,700 hectares. According to the company's 2011 annual report, it has thus far planted some 31,200 hectares of acacia and 30,900 hectares of oil palm. 16

Table 1: List of Ta Ann timber $(T-Timber\ Licenses)$ and plantation licences $(LPF-licenses\ for\ planted\ forests)$ in Sarawak¹⁷

License no.	Type	Name of subsidiary	Area (hectares)	Area under LPF (hectares)	Licence valid until
T/3135	Timber	Pasin Sdn. Bhd.	49,858	0	2015
T/3346	Timber	Woodley Sdn. Bhd.	83,307	0	2017
T/0560	Timber	Raplex Sdn. Bhd.	72,251	72,251	2017
T/3491	Timber	Tanjong Manis Holdings S/B	125,000	125,000	2021
T/0342	Timber	Borlin Sdn. Bhd.	32,023	0	2025
LPF/0002	Plantation	Zumida Sdn.Bhd.	7,703	ı	2057
LPF/0010	Plantation	Ta Ann Plywood Sdn. Bhd.	108,125		2058
LPF/0040	Plantation	Ta Ann Plywood Sdn. Bhd.	197,250	-	2065

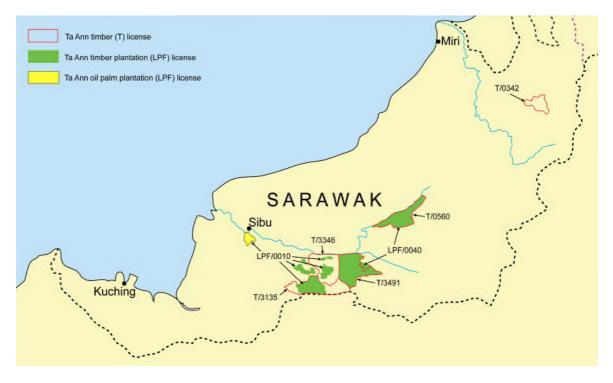


Figure 1: Map showing the locations of Ta Ann timber licence areas and licence areas for planted forests in Sarawak. The location of LPF/0002 is not known to the Council. ¹⁸.

¹⁴ Information on the licence areas has been taken from the environmental impact assessments for LPF/0010 and LPF/0040. Topography and regulations limit the plantable area.

¹⁵ http://www.taann.com.my/bs-oilpalm. This is additional to the area specified in Table 1.

Ta Ann Annual Report 2011, available at www.taann.com.my.

¹⁷ The list of licences and sizes has been collated from the Ta Ann website: www.taann.com.my. Information on the licence areas has been taken from the environmental impact assessments for LPF/0010 and LPF/0040. Topography and regulations limit the plantable area.

4 Environmental impact of Ta Ann's operations

Most of Ta Ann's licence areas are located between the Rajang River and the Indonesian border (see Figure 1). These licences cover areas of natural rainforest where Ta Ann has carried out selective logging for the last 15 to 30 years, and where logging still is ongoing. The forest that is being cleared in these licence areas is made up of mixed dipterocarp forest. Although the forest has been selectively logged previously, available information suggests that the vast majority of the area concerned, continues to meet the definition of "continuous, closed canopy forest". 20

Little information is available on the condition of the forest that is being logged. The Council has had access to the environmental impact assessments (EIAs) for the forest plantation established under LPF/0040 and the tree planting conducted under LPF/0010. These reports do not include any detailed assessment of the ecological value of the natural forest areas planned for clearance, beyond stating that they have been degraded by prior logging. Nevertheless, the assessments do confirm that the forest still contains important ecological values, particularly in certain areas. This is elaborated on below. No EIAs are available for the other timber licences (T/3135, T/3346 and T/3491), and hence there is no information on areas that are not included in the LPF licenses (see Figure 1).

4.1 Loss of biodiversity and habitats

Clearance of LPF/0010 and the Melekun Division of LPF/0040

The licences for planted forests were issued to Ta Ann in 1998 (LPF/0010) and 2005 (LPF/0040). With its 197,250 hectares, LPF/0040 is one of the largest plantation licences in the whole of Sarawak. LPF/0010 covers 108,125 hectares (see Figure 1), and comprises seven separate areas in different locations. One particularly valuable area is Area F (Pasin), which runs along the border with Indonesia. The area is adjacent to the Indonesian Bentuang Karimun National Park to the south, and borders the Lanjak Entimau Wildlife Sanctuary (Sarawak) to the west. The sanctuary is the largest protected area in Sarawak, and is home to around 1,400 orangutans (*Pongo pygmeus*). The government has nominated it as a Unesco World Heritage Site due to its significance as a habitat for orangutans and a number of other endangered species. The Sarawak government has proposed an extension of the national park eastwards because it is assumed that the orangutans may have a presence outside the protected areas. Timber licence T/3135 is also contiguous with the wildlife sanctuary, see Figure 2.

²⁰ This assessment is based on Ta Ann's environmental impact assessment reports, management plans, field visits and satellite imagery.

7

¹⁸ Ta Ann Plywood Sdn.Bhd. 2007: Revised Tree Planting Plan for LPF/0010.

¹⁹ *Dipterocarpaceae* is a large family of primarily evergreen broadleaf trees that are dominant in the rainforests of Malaysia. The trees may grow very old and normally reach a height of 40 to70 metres. Many of the species have considerable economic value as timber, but are also used in the production of ethereal oils, balsam and plywood.

²¹ Ecosol Consultancy Sdn. Bhd. 2006: *Environmental Impact Assessment for the proposed Melekun Raplex Forest Plantation under LPF/0040 Kapit Division, Sarawak*, p. C2-1. LPF/0040 consists of two separate areas: the Melekun Division (125,000 hectares, overlapping with T/3491) south of the Rajang river, and the Raplex Division (72,250 hectares, overlapping with T/0560), north of the Rajang river, see Figure 3.

²² http://whc.unesco.org/en/tentativelists/1988/.

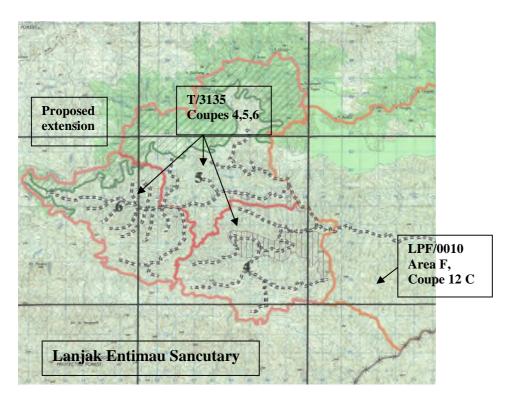


Figure 2: The location of Coupes 4, 5 and 6 of T/3135 and Coupe 12C of LPF/0010 in relation to the Lanjak Entimau Wildlife Sanctuary. Red lines are coupe boundaries. Coupe 12C of LPF/0010 and Coupes 6 and 4 of T/3135 are contiguous with the Wildlife Sanctuary, while Coupe 5 and also Coupe 6 of T/3135 are contiguous with the proposed extension of the Sanctuary. ²³

The EIA noted that large numbers of large-diameter trees and stretches of virgin forest remained in Area F of LPF/0010²⁴, along with a broad range of wildlife. Neither flora nor fauna diversity are described in any detail, but the EIA states that: 'There are 8 totally protected mammals, including Orang Utan which is found in the Area F, but are confined to the Lanjak Entimau Wildlife Sanctuary and the Indonesia border. Other totally protected mammals are the Bornean Gibbon, Hose's Langur, Maroon Langur, Clouded Leopard, Western Tarsier, Slow Loris and Giant Squirrel.'²⁵ The EIA lists 18 species of mammal and 19 species of bird that are protected under national legislation.²⁶ Of these, 18 are classified as endangered on the red list of the International Union for Conservation of Nature (IUCN).²⁷ According to the IUCN, these species are all declining rapidly, due particularly to loss of habitat through logging and deforestation.

A map showing the distribution of orangutans in Borneo indicates that, in around the year 2004, orangutan habitats overlapped with the western parts of T/3135 and Area F (see Figure 3). The

_

²⁴ See footnote 21 and Plantacia Sdn Bhd. 1999: Environmental Impact Assessment Report for Tree Planting under License for Planted Forests LPF/0010 in the Sibu and Kapit Divisions, Sarawak, pp. 9–10.

²³ Pasin Sdn.Bhd. Excerpt from the General Harvesting Plan for the license area T/3135. A license area is divided into many coupes. The General Harvesting Plan shows tha lay out of coupes and roads in the license area.

²⁵ Plantacia Sdn Bhd. 1999: Environmental Impact Assessment Report for Tree Planting under License for Planted Forests LPF/0010 in the Sibu and Kapit Divisions, Sarawak, p. 32-35. The Sarawak Wildlife Protection Ordinance 1998, First Schedule provides provisions for the protection of wildlife and states which species that are protected.

²⁶ The Sarawak Wildlife Protection Ordinance 1998, First Schedule, Parts 1 and 2.

²⁷ The IUCN red list of threatened species classifies species with a high risk of becoming extinct. Critically endangered species have a very high risk of extinction, vulnerable species have a high risk, and near threatened species have a risk of moving into the categories vulnerable or critically endangered in the near future, see http://www.iucnredlist.org/. Four of the species listed in the impact assessment are classified as critically endangered. These are the orangutan (*Pongo Pygmeus*), the Bornean Gibbon (*Hylobates muelleri*), the otter civet (*Cynogale bennetti*) and the pangolin (*Manis javanica*). A further eight species are classified as vulnerable, and six as near threatened.

map also shows that the distribution of orangutans was considerably reduced between 1989 and 2004 in many of the areas in which Ta Ann has had logging operations in the last 10 to 15 years. Maps provided by the "Great Apes Survival Partnership" suggest that orangutans are still found in areas that overlap with Ta Ann's licence areas (Area F and T/3135),²⁸ as do recently published estimates of orangutan populations in Borneo.²⁹

According to the EIA for LPF/0010, the clearance of forest in licence areas A to F will have severe negative impacts. The EIA concluded that 'major adverse impacts are envisaged for flora and fauna factors, since their habitats will be destroyed.'30 The EIA also predicted further major adverse impacts in terms of increased soil erosion and resulting reduction of water quality in streams and rivers. According to the EIA, the most crucial measures to mitigate these impacts are to set aside areas of forest along river banks, on steep slopes and in areas of poor soil quality. The EIA does not mention any specific mitigation measures to protect the orangutan or other protected species, other than preventing workers from hunting them and recommending the progressive clearing of land to allow migration of animals to adjacent forested areas. 'Care must be taken to ensure that rare and endangered species have moved out of an area before clearing begins.'³¹

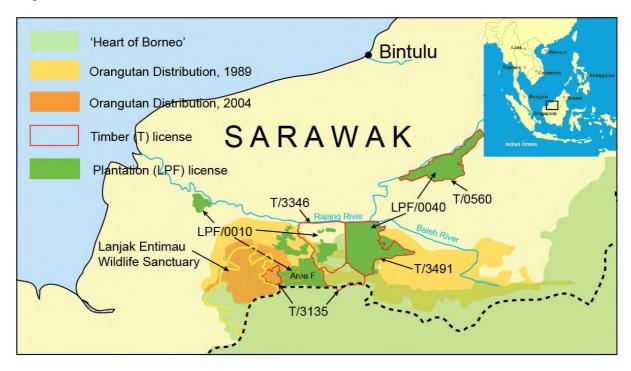


Figure 3: Overlay of boundaries of Ta Ann's licence areas, orangutan distribution 1989 and 2004, and boundary of the "Heart of Borneo" area. The black dotted line indicates the border with Indonesia. ³²

_

³⁰ See footnote 25, p. 76.

²⁸ Great Apes Survival Partnership: http://www.un-grasp.org/. The programme receives support from the UN Environment Programme (UNEP) and UNESCO, and is one of the few UNEP initiatives to focus on saving special, threatened species from extinction. An interactive map, the APES mapper, shows the spread of orangutans and is available on the website.

²⁹ Wich SA, Gaveau D, Abram N, Ancrenaz M, Baccini A, et al. 2012: *Understanding the Impacts of Land-Use Policies on a Threatened Species: Is There a Future for the Bornean Orang-utan?* PLoS ONE 7(11): e49142. doi:10.1371/journal.pone.0049142.

³¹ Plantacia Sdn Bhd. 1999: Environmental Impact Assessment Report for Tree Planting under License for Planted Forests LPF/0010 in the Sibu and Kapit Divisions, Sarawak, p. 69.

³² Information on orangutan distribution from WWF Germany, 2005, *Borneo: Treasure Island at Risk – Maps on Status of Forests, Wildlife and related Threats on the Island of Borneo*; Heart of Borneo boundary is from Financing the Heart of Borneo, 2010.

Almost half of the species identified in the EIA are classified as endangered by the IUCN, indicating that these species face a very high risk of extinction in the wild in the near future. The migration of wildlife populations to other areas will not ensure their protection. Generally speaking, and in ecological terms, there are no "empty" territories nearby that a surplus can occupy. The temporary migration of individuals is therefore likely to result in a loss of individuals proportionate to the loss of habitat area.

Since 2010, Ta Ann has carried out High Conservation Value Forest (HCVF) assessments, which entail the identification, conservation and management of particularly important conservation values in a licence area (see section 5). These assessments are not required by law. According to Ta Ann, the company carries out such assessments for all licence areas prior to logging and clearing. Ta Ann has provided the Council with only one HCVF report, covering two coupes in the northern part of LPF/0010 (not falling within Area F), where the forest will be converted into oil palm plantations.³³ This assessment also confirms a rich floral and faunal biodiversity in the area, including a number of protected and endangered species. 'As a whole, the licensed forest provides an important refuge for a rich diversity of mammal, birds, reptiles, amphibian and fish.' The orangutan was not found in the study area. It 'is confined to the Lanjak Entimau Wildlife Sanctuary.'³⁴ The report states that the mere presence of such species is not a compelling reason to stop clearance, and the consultant did not see the plantation development as an 'imminent unequivocal threat to the biological richness'. ³⁵ One of the suggested mitigation measures is to set aside a wildlife corridor. However, 'The wildlife corridor does not cater specifically to the wildlife found in Coupes 13 and 17; it could be used by species in the entire licence area, serving a link between the major salt licks found in the region [...] Animals that are disturbed by plantation activities will be able to take refuge in the corridor.'36 The wildlife corridor comprises the riparian buffer zone along a stream which runs through the coupes, and is 140m wide. Other recommended measures include setting aside an area of 15 hectares to serve as a gene bank for commercial tree species, three salt licks, and areas used for shifting cultivation and as burial sites by local people. While these measures are likely to have some positive effects, they are not documented, and appear unlikely to offset the major negative impacts of clearance.

Clearance of LPF/0040 – Raplex Division

According to the forest management plan for timber licence T/0560 (which covers the same area as LPF/0040), more than 90 per cent of the area was old-growth stand of mixed dipterocarp forests at the time the plan was written.³⁷ Ta Ann has confirmed that the area was covered by virgin forest when the license was issued to Ta Ann in February 1977. Since then, logging has been carried out by the same company (Raplex), which was incorporated into the Ta Ann group in 2002.³⁸

³³ Ecocol Consultancy Sdn.Bhd. 2010: Survey and identification of High Conservation Value Forests /HCVFs) in Coups 13 and 17 of LPF/0010 near Song, Kapit Division for Ta Ann Plywood Sdn.Bhd. Final Report (Version II).

³⁴ See footnote 33, p. 9.

³⁵ See footnote 33, p. 16.

³⁶ See footnote 33, p. 16.

³⁷ Forest Management Plan for the Rajang-Pila Management Unit, undated. According to the forest management plan the description of the state of the forest is based on aerial pictures taken between 1967 and 1969.

This licence was awarded to Ta Ann's subsidiary Raplex for the entire period 1977–2017. Ta Ann formally acquired Raplex in 2002. At the time, Raplex's owners included the persons who founded Ta Ann (Datuk Abdul Hamed bin Haji Sepawi, Datuk Wahab bin Haji Dolah, Dato Wong Kuo Hea), and Sepawi was both chairman of Ta Ann and general manager of Raplex. In addition, two Ta Ann directors were also directors of Raplex. The acquisition was notified to the stock exchange as a related-party transaction, see Ta Ann Holdings Berhad Announcement dated 8 April 2002 on Proposed Bonus Issue and Proposed Acquisition of Raplex Sdn Bhd, General Announcement Reference No MM-020408-A4EFE. In its letter to the Council on Ethics of 14 May 2001, Ta Ann wrote that Raplex Sdn. Bhd. (T/0560) 'was owned by parties having no connection to "TA ANN founders" '.

The description in the EIA of the state of the forest 30 years later, in 2006, establishes that the areas must have undergone at least two cycles of timber harvesting in the last 20 to 30 years (the forest management plan requires a cutting cycle of 25 years). As a consequence, the areas have been 'intensely disturbed by heavy logging in the last few decades,' to such an extent that "much of the existing vegetation on-site has lost its conservation value.' This is used as an argument to justify the conversion of forest into plantations, and it is also claimed that the plantations will not differ greatly from the forest that has been felled: 'The 'no-project' option is therefore difficult to justify, especially when the present Project is proposing to establish a forest plantation that is not too different from the secondary forests, but which will be more productive and accrue a much higher economic return during the span of the project.' ³⁹

Despite the fact that the forest is considered heavily degraded, the EIA mapped a rich biodiversity of species, including 30 birds and 8 mammal species that are protected in Sarawak. The EIA noted that the clearing of the natural forest will have negative impacts on existing flora and fauna because their natural habitats will be removed and later replaced by an "artificial forest plantation." The loss of biodiversity and habitats is expected to occur throughout most of the planting area. 'Numerous species of animal and bird life that are dependent on the natural forests for shelter food and breeding ground will be adversely affected due to the clearing of the forest [...] Although the past logging activities had greatly reduced the conservation value of the remnant forests, the planted forest will further simplify the existing ecosystem and reduce the existing biodiversity.' Nevertheless, the EIA concluded: 'The EIA study has shown that with proper planning and implementation of the mitigation measures recommended, any significant adverse impacts on the environment could be reduced to acceptable levels.' The most important mitigation measures are minimising soil erosion, including through the retention of riparian vegetation, confining planting to slopes of less than 35 degrees, and implementing soil conservation measures in connection with road building and planting activities.

4.2 Re-entry logging without an EIA

According to the Natural Resources and Environment (Prescribed Activities)(Amendment) Order 1997, First Schedule, Article 2(i), companies in Sarawak must have completed an EIA approved by the Natural Resources and Environment Board (NREB) before undertaking re-entry logging in areas larger than 500 hectares. EIAs are required by the NREB also when forests are converted into plantations. These requirements have existed in Sarawak law since 2005.

The EIA must contain a detailed assessment of all potentially important environmental impacts resulting from logging or the establishment of plantations, and prescribe the preventive and protective measures the company must implement to reduce the damage.

A number of documents provided by Ta Ann confirm that re-entry logging is being carried out in licences T/3135, T/3491 and T/0560 even though no EIAs exist for re-entry logging in any of

³⁹ Ecosol Consultancy Sdn. Bhd. 2006: Environmental Impact Assessment for the proposed Melekun Raplex Forest Plantation under LPF/0040 Kapit Division, Sarawak, p. C2-3.

⁴⁰ The EIA for LPF/0040 which covers both the Melekun and Raplex licesne area, lists more than 200 tree species, 42 species of mammals, 187 bird species, 194 fish species and several hundred insect species. Reptiles were poorly represented in the area, but many species of amphibians were identified. Of theses 39 bird species and 8 species of mammals are protected according to the Sarawak Wildlife Ordinance. Some of the species, such as the Bornean Gibbon, is listed on the IUCN redlist.

⁴¹ Ecosol Consultancy Sdn. Bhd. 2006: Environmental Impact Assessment for the proposed Melekun Raplex Forest Plantation under LPF/0040 Kapit Division, Sarawak, p. C4-21.

⁴² See footnote 41, p. ES-6.

these licences. ⁴³ Ta Ann has pointed out that the Permits to Enter Coupe for the re-entry logging have the requirement for the submission of an EIA crossed out. It cannot be ruled out that the company has been exempted from these requirements, although the NREB has informed the Council that no such exemptions are allowed. ⁴⁴

The majority of the area concerned (T/3135, T/3491 and T/0560), overlaps with the licences for plantation forest, and EIAs have been produced for these LPFs. Hence it may be argued that environmental impacts have been assessed also for areas where re-entry logging is occurring. However, there are areas under timber licence T/3135 and T/3346 which do not overlap with LPF licence areas and for which no impact assessments have been carried out prior to logging. This applies, for example, to the western part of T/3135, which borders the Lanjak Entimau Wildlife Sanctuary, meaning that neither possible impacts due to logging nor mitigation measures in this potentially ecologically valuable area have been identified.

5 Information provided by the company

5.1 Ta Ann's contact with the Council

The Council has communicated with Ta Ann on several occasions since July 2010, most recently in October 2012. Ta Ann has provided numerous documents pertaining to its licences, which have been useful for the Council's assessment. Nevertheless, there is still a lack of information about several aspects of the company's operations on which Ta Ann has not provided documentation. This concerns, particularly, timber licences, forest management plans and a number of HCVF assessment reports.

Members of the secretariat had a meeting with Ta Ann in Sibu (Sarawak) in October 2011, including a one-day field visit to LPF/0010. The coupes visited were near Song and had been recently planted.

The Council has twice sent draft recommendations on exclusion to Ta Ann for review, the first time in March 2011, the second time in November 2012. Ta Ann has commented on both drafts, as elaborated on below.

5.2 Ta Ann's position

Ta Ann has stated that, 'In managing our forest harvesting and the development of forest plantation, we believe that sustainability is the only way forward in long term natural resource management.' With regard to the environment, the company is committed to:

 Formulating and implementing forest management plans that are compatible with the best logging practices, upkeep and maintain for long-term sustainable supply of commercial timber.

⁴³ EIA reports for LPF/0010 and LPF/0040 confirm that the western portion of the Pasin Sdn. Bhd. timber licence (T/3135) and the whole of the Tanjung Manis Sdn. Bhd. licence (T/3491) were previously logged. Permits to Enter Coupe for relevant timber licence areas provided by Ta Ann also confirm that the logging being conducted in T/3135, T/3491 and T/0560 is re-entry logging.

⁴⁴ Confirmed in the Council of Ethics Secretariat's meeting with the Sarawak Forest Department, NREBD, the Forestry Corporation and other government bodies in Kuching, Sarawak 17 October 2011.

- Complying with the regulatory requirements, mitigating measures and environmental management plan set out in the Social and Environmental Impact Assessment while excluding environmentally sensitive areas from operation.
- Identifying, managing, conserving and enhancing the High Conservation Value Forests. 45

Ta Ann does not agree with the Council that its forest operations cause severe environmental damage.

'We disagree that our operations will cause severe and irreversible impacts on the environment as claimed. In carrying out our operation, Ta Ann adheres strictly to all relevant rules and regulations governing forest plantation establishments. In addition, we are implementing various measures and continuously refine our ground operations to ensure proper environmental safeguard.'

Moreover, Ta Ann has stated:

'It is regrettable that the Council has arrived at a conclusion that our operation poses an unacceptable risk of environmental damage. Moreover, it is presumptuous of the Council to make similar conclusions on the future of our operation without giving a fair consideration to the mitigating measures that have been implemented by us and also the ones that are underway'.

Ta Ann has criticised the Council for failing to take into account that plantations are very important for the social and economic development of Sarawak, and that the conversion of forests into plantations is an important element in the authorities' forestry and land policy. Ta Ann emphasised this in its most recent letter to the Council:

'We wish to reiterate that the establishment of forest plantation is the only way to sustain timber resources and to elevate the standard of living of communities in which we operate [...] Conversion of low income yielding forest land into productive forest plantation is a formula adopted by many developing countries for transformation to a developed country. Sarawak is no exception. Ta Ann is committed to supporting the State Government in realizing this noble vision in a sustainable and responsible way [...] Forest plantation, being an industry that is central to our economic development will greatly benefit the poor, especially those in the rural area by creating employment opportunities where jobs with steady incomes are scarce. With the 7000 employment created through our business activities, we have contributed greatly to the livelihood and welfare of our workers and their families.'

In its communications with the Council, Ta Ann has given particular emphasis to the following:

- Deforestation will not affect the entire licence area. Vegetation will be removed from 30 per cent of the land; 70 per cent will remain.
- The HCVF assessments are conducted before logging and deforestation begin, and HCVF areas are protected.
- Wildlife corridors are preserved, and other measures are implemented to protect biodiversity.
- There are no orangutans in the company's licence areas.

_

⁴⁵ Ta Ann's Sustainable Management Policy 19.05.2010, submitted to the Council.

⁴⁶ Ta Ann's letter to the Council on Ethics of 25 October 2012.

⁴⁷ Ta Ann's letter to the Council on Ethics of 25 October 2012

The clearance of forests

In its communications with the Council, Ta Ann has repeatedly claimed that only 30 per cent of the land covered by a plantation licence will be deforested. This claim is based on its experiences regarding how much of a coupe is planted. On a geographic unit level or coupe level, the cumulative planted area (i.e. also the clear-felled/converted area) is set against the areas of the PEC [Permit to enter Coupe] approved coupes to arrive at this average percentage of 30 %. So out of the gross total area of 299,933 ha, we estimated that less than 90,000 ha will be cleared for establishment of forest plantations.

Moreover, Ta Ann states that the actual clearing rate can vary between licence units and coupes, and that the rate for oil palm plantations generally exceeds 30 per cent. The revised Tree Planting Plan for LPF/0010 shows that the plantable area for the different parts of the licence varies from 79 per cent (oil palm) to 38 per cent. Information provided by Ta Ann for the coupes in LPF/0010 shows that planted areas totalled as little as 6 per cent in one coupe, but up to 80 per cent of the gross area in another. In the coupes where planting has been completed, the average clearing rate in different parts of the licence varies from 25 to 42 per cent. ⁵¹

In its most recent letter to the Council, Ta Ann wrote that the company had improved its planting methods further, including by planting on terraces in the terrain without removing the vegetation between the terraces. According to Ta Ann, this helps to maintain natural habitats for local fauna and reduces deforestation by 80 per cent compared to conventional planting methods.⁵² Ta Ann also stated that areas outside the planting fields are logged in accordance with requirements and good logging practice. Logging is not undertaken in HCVF areas (see below), agricultural areas or areas reserved for the local population.

Setting aside High Conservation Value Forests

Ta Ann has informed the Council that

'Formal High Conservation Value Forest (HCVF) assessments commenced in 2010 and was implemented as a pre-operational requirement for all forth coming Timber Licenses-coupes, License for Planted Forests-coupes and oil palm areas in 2011. The HCVF assessments conducted by external consultants are based on the WWF- HCVF National Toolkit for Malaysia 2009 including all the 6 principles of HCV. On-ground assessments also include consultation with local communities/stakeholders having interest in the operational coupes concerned.'

Ta Ann has further explained that due to operational scheduling and the time required, these assessment are carried out on a coupe-by-coupe basis. Timber licence area T/0342, which Ta Ann aims to have FSC-certified, is the only area being assessed as one entity. ⁵³

HCVF areas that are set aside for conservation purposes require management and monitoring to ensure that conservation values are maintained. Ta Ann has stated that, 'On ground, the allocated HCV areas are demarcated, GPS and updated in our GIS systems […] Frontline operations are then

⁴⁸ Ta Ann's reply to the Council on Ethics' draft recommendation of 14 May 2011.

⁴⁹ Ta Ann's response to questions regarding Ta Ann's forest operation to the Council on Ethics, 22 August 2012.

⁵⁰ Ta Ann Plywood Sdn. Bhd. 2007: Revised Tree Planting Plan for LPF/0010.

⁵¹ See footnote 49. Based on information provided by Ta Ann. The planted area was 42 per cent (Woodley Division), 25 per cent (Pasin Division) and 35 per cent (Rejang Division).

⁵² Ta Ann's letter to the Council on Ethics of 25 October 2012.

⁵³ The Forest Stewardship Council (FSC) is an international member organisation that has established a third-party certification scheme under which forestry operations must satisfy defined sustainable forestry criteria. More information is available at http://ic.fsc.org/.

briefed on the HCVF areas and non-operation in these areas. Regular inspections are also conducted to detect any encroachment or non-compliance to the rule.'54

Ta Ann has informed the Council that it has completed HCVF Assessments for 18 coupes. The Council has requested these assessment reports, but Ta Ann has only provided one such report, covering two coupes in one licence. ⁵⁵ Consequently, no information is available on how these assessments have been carried out, or on what values have been identified in other parts of the licences.

High conservation value forest assessments⁵⁶

All forests contain environmental and social values, such as habitats, protection against erosion as well as areas important for securing basic needs and cultural sites for the local population. Where these values are deemed to be particularly important, a forest can be defined as a *High Conservation Value Forest* (HCVF). A forest or area with high conservation value has one or more of the following characteristics:

- **HCV 1:** Concentrations of biological diversity including endemic species, and rare, threatened or endangered species, that are significant at global, regional or national levels.
- **HCV 2:** Large landscape-level ecosystems and ecosystem mosaics that are significant at global, regional or national levels, and that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance.
- **HCV 3:** Rare, threatened, or endangered ecosystems, habitats or refugia.
- **HCV 4:** Basic ecosystem services in critical situations, including protection of water catchments and control of erosion of vulnerable soils and slopes.
- **HCV 5:** Sites and resources fundamental for satisfying the basic necessities of local communities or indigenous peoples (for livelihoods, health, nutrition, water, etc.), identified through engagement with these communities or indigenous peoples.
- **HCV 6:** Sites, resources, habitats and landscapes of global or national cultural, archaeological or historical significance, and/or of critical cultural, ecological, economic or religious/sacred importance for the traditional cultures of local communities or indigenous peoples, identified through engagement with these local communities or indigenous peoples.

An HCV assessment is an extensive process in which conservation values are surveyed, and management and monitoring plans are developed to ensure that the conservation values are maintained or improved. International guidelines have been developed on how this process should be conducted. The guidelines are often adapted for individual countries.⁵⁷ The FSC and other certification schemes demand HCVF assessments to ensure that the logging or conversion of forests do not destroy important conservation values.

Wildlife corridors and other mitigation measures

In its communications with the Council, Ta Ann has stressed that the low average clearing rates provide significant conservation values for biodiversity. 'Exclusions from forest clearing include alienated lands and reserves, gazetted communal reserves, Native Customary Rights lands (including farming land, fruit orchards, settlement sites), forest islands, HCVF sites (such as watershed for local communities, salt licks, burial grounds, religious sites), special sites such as tagang community conservation zones, EIA riparian buffers and wildlife areas/corridors. ⁵⁸

⁵⁶ For more information about HCVF assessments, see http://www.hcvnetwork.org/.

⁵⁴ Ta Ann's response to question regarding Ta Ann's forest operation to Council on Ethics, 22 August 2012.

⁵⁵ Coupes 13 and 17 of LPF/0010.

⁵⁷ The WWF has overseen the development of separate guidelines for HCVF assessments for Malaysia, see http://www.hcvnetwork.org/resources/national-hcv- interpretations/HCVF% 20Toolkit% 20For% 20Malaysia_softcopy% 20version.pdf.

Ta Ann's letter to the Council, 14 May 2011.

With regard to protected fauna species, mitigation measures 'include erection of No-hunting signages, "protected flora and fauna species" posters, education talks, ban on guns, and no selective logging or land clearing in wildlife corridors and HCV areas. ⁵⁹According to Ta Ann, riparian buffer zones will also ensure the conservation of protected tree species.

Orangutans in the licence areas

Ta Ann rejects the possibility that orangutans are present in the licences bordering the Lanjak-Entimau Wildlife Sanctuary (LEWS). The company claims that buffer zones are delineated between the license areas and the LEWS, and that there are also defined exclusion areas which are not logged. 'No orang utan have been sighted or identified in preoperational or operational work for selective logging and forest plantation clearance in coupes that were worked by TA ANN. Excluded areas within LPF coupes i.e., international buffer, steep terrain and conservation belts have not been surveyed by TA ANN.' Moreover:

'With regard to our operational areas adjacent/contiguous to LEWS, HCVF assessment carried out for Pasin T/3135 Coupes 05A and 06A, and LPF/0010 Coupes 14C and 15C reported that no orang utan or their nests were sighted. At the same time, our survey crew has also combed the areas to further ascertain the presence or absence of orang utan. Should there be a sighting by our workers, it would be referred to the relevant authorities for their re-assessment and recommendation of mitigating measures.'61

Ta Ann has also stated that the proposed extension to the Lanjak Entimau Wildlife Sanctuary does not include any part of T/3135 or LPF/0010.

In response to the Council's queries, Ta Ann has confirmed that, so far, no scientific studies on wildlife and supporting habitats have been carried out in the licence areas that will be converted into plantations.

6 The Council on Ethic's assessment

The Council on Ethics has assessed whether there is an unacceptable risk of Ta Ann, through its forestry operations, being responsible for severe environmental damage pursuant to section 2(3) of the Ethical Guidelines. In the present case, the Council has given weight to environmental damage linked to logging and the conversion of tropical forests into plantations in Sarawak, Malaysia.

In its assessment, the Council has emphasised the scale of the damage and to what extent it has long-term or irreversible impacts, whether the environmental damage is a result of violations of national laws or international norms, and what the company has done to mitigate adverse effects. The Council has focused particularly on the extent to which the company's licence areas overlap with areas containing important ecological values, and what consequences the conversion of forest will have for endangered species and their habitats.

Ta Ann's licence areas cover around 360,000 hectares. Ta Ann holds plantation licences totalling 300,000 hectares. At least one-third of this area, and probably more, will be converted into plantations. All of Ta Ann's licence areas are located in the Sundaland Biodiversity Hotspot, and a third is also situated within the Heart of Borneo. These areas contain particularly important

⁵⁹ Ta Ann's response to questions regarding Ta Ann's forest operation to the Council on Ethics 1 22 August 2012.

⁶⁰ Ta Ann's letter to the Council, 14 May 2011.

⁶¹ Ta Ann's response to questions regarding Ta Ann's forest operation to the Council on Ethics, 22 August 2012

ecological values that are strongly threatened by deforestation and forest degradation. ⁶² The hotspot is ranked as one of the most threatened due to past and ongoing deforestation. In the Council's view, there can be no doubt that the destruction of more than 100,000 hectares of tropical rainforest in one of the world's most biodiverse regions will have serious, irreversible consequences for biodiversity and ecosystem services. The Council considers it likely that the remaining forest will also be strongly affected due to edge effects and the increased fragmentation of forests and habitats.

The majority of Ta Ann's licence areas have been logged previously. Nevertheless, the company's own EIAs show that the forest contains important ecological values. The forest provides habitats for many species that are protected in Sarawak, including many on the IUCN red list of threatened species. These species are declining quickly because their habitats are being destroyed or degraded by logging and the conversion of forests into plantations. When habitats are further reduced on the scale seen in the present case, the risk increases that rare and local species will become extinct. In this context, the Council would also mention the UN and World Bank REDD initiatives, which express international agreement on the importance of stopping the deforestation and degradation of tropical forests, as a way to mitigate climate change and biodiversity loss. Ta Ann's conversion of tropical rainforest into plantations is highly inconsistent with international initiatives to prevent deforestation.

Ta Ann's own reports point out that the loss of biodiversity and destruction of habitats will be unavoidable when forests are turned into plantations. In its communications with the Council, Ta Ann has emphasised that the company has implemented a range of mitigation measures designed to reduce the environmental damage caused by its operations (see section 5). For example, the company has stated that less forest will be removed (as little as 30 per cent of the gross coupe area), through better planting methods and more environmentally friendly logging methods (referred to as "reduced impact logging"). The company has also emphasised that buffer zones along waterways are being set aside as wildlife corridors, that logging is avoided in steep terrain, and that biologically important (HCVF) areas are set aside. The Council considers it positive that Ta Ann is taking such steps, which indicate that the company is seeking to steer its operation in a more environmentally friendly direction.

The Council is of the opinion that these measures appear insufficient to protect the habitats of endangered species and ecosystems. How much of the forest area that is cleared, varies between different coupes and licence areas. Much of the forest that will be protected appears to be located in areas where logging is normally prohibited. Even though patches of forest and buffers zones along waterways are important for biodiversity and ecological functions locally in these areas, it is not given that the measures will help to protect key areas for endangered species or rare ecosystems. There can be no doubt that Ta Ann's operations are increasing the fragmentation of habitats in the licence areas. The long-term impacts of degraded and fragmented habitats on biodiversity and ecosystems can be serious, and are well-documented in relevant literature. ⁶³ In the Council's view, the company has not taken sufficient account of this aspect.

⁶² The World's 10 Most Threatened Forest Hotspots: http://www.conservation.org/newsroom/pressreleases/Pages/The-Worlds-10-Most-Threatened-Forest-Hotspots.aspx.

⁶³ See for example Bennett, A.F. 1998, 2003: *Linkages in the Landscape: The Role of Corridors and Connectivity in Wildlife Conservation*. IUCN, Gland, Switzerland and Cambridge, UK. Jackson, ST and DF Sax 2010: Balancing biodiversity in a changing environment: extinction debt, immigration credit and species turnover. In *Trends in Ecology and Evolution*, Vol 25, Issue 3. pp 153-160. DOI: 10.1016/j.tree.2009.10.001 focuses on long-term effects. Also the Malaysian Department of Environment in NREB 2009: *Managing Biodiversity in the Landscape. Guidelines for Planners, Decision-Makers & Practitioners* illuminates the negative effects of fragmentation in its guidelines on the protection of biodiversity.

According to Ta Ann, the areas that are set aside can function as wildlife corridors. Generally speaking, wildlife corridors are intended to be functional, i.e. they are supposed to connect the remaining pieces of previously contiguous habitats to simplify migration between forest fragments and areas of contiguous forest. 64 Wildlife corridors can play an important role in protecting species, but their importance – particularly for larger mammals – is not welldocumented, and they clearly cannot be the only instrument for protecting biodiversity. The effect of such corridors depends on the size and width of a given corridor and the size of the habitats the corridor connects. It is also important to consider what animals the corridor is to serve, the animals' movements and how effective the corridor will be in maintaining various wildlife populations. 65 Ta Ann has not responded to the Council's enquiry regarding the intended function of the corridors. Nor has it been documented how the corridors are connected to areas of contiguous forest, or what species the corridor is supposed to serve. The Council does not dispute that wildlife corridors can be valuable elements in a strategy for protecting various wildlife species. However, the information available to the Council did not demonstrate that the corridors would in fact function as sustainable habitats for endangered or wide-ranging species, or that they would help to maintain the rich biodiversity that has been documented in the licence areas and is also identified in Ta Ann's own HCVF assessment.

It is worth noting that Ta Ann conducts surveys of conservation values in forests, and that it has thus far completed such HCVF assessments for 18 coupes. Ta Ann does not publish these assessments. In HCVF assessments, which are normally undertaken in accordance with defined principles and processes, set criteria are evaluated to ensure that conservation values are identified. It is unclear from the single report to which the Council has had access, how the process was conducted and how the conservation values in the two examined coupes were identified. For example, it is not clear how much consideration was given to conservation values in a landscape context, or how important the forest is in a global, regional or national context due to a particular concentration of biodiversity. The conversion of forests is an irreversible intervention in nature. The purpose of an HCV process is to ensure that important conservation values are not lost when a forest is altered. Based on the information provided to the Council by Ta Ann, the Council considers it unlikely that the assessments undertaken by the company ensure this.

The Council has emphasised the documented risk that orangutans and other endangered species may have their habitats in Ta Ann's licence areas. The location of two of the company's licence areas, which include several coupes bordering on the Lanjak Entimau Wildlife Sanctuary, presents a risk that orangutans and other critically endangered species may have their habitats within the licence boundaries. No EIAs have been carried out for the logging licence that borders on the sanctuary. Accordingly, the company has engaged in logging without surveying ecosystems, habitats and species. In the Council's opinion, this proximity to the sanctuary demands that a precautionary approach be taken, which must include a professional and thorough assessment of whether the habitats of these animals overlap with Ta Ann's licence areas. The surveys conducted by Ta Ann appear to lack the systematic approach needed to confirm that Ta Ann's operations will not damage valuable habitats. The Council finds that this increases the risk of severe environmental damage.

⁶⁴ Bennett, A.F. 1998, 2003: Linkages in the Landscape: The Role of Corridors and Connectivity in Wildlife Conservation.

⁶⁵ NREB 2009: Managing Biodiversity in the Landscape. Guideline for Planners, Decision-Makers & Practitioners.

⁶⁶ Proforest 2008: Good Practices Guidelines for High Conservation Value Assessments. WWF 2009: High Conservation Value Forest (HCVF) Toolkit for Malaysia.

⁶⁷ See footnote 66.

Given that the conversion of tropical forests involves the complete, irreversible alteration of affected ecosystems, the scale of the deforestation, and that these operations are being pursued in areas with a particularly rich biodiversity as regards species, habitats and ecosystems, the Council has concluded that the measures implemented by Ta Ann to mitigate the adverse effects are insufficient to secure a material reduction in the risk of severe environmental damage now and in the future.

7 Recommendation

The Council recommends the exclusion of Ta Ann Holdings Berhad from the investment universe of the Government Pension Fund Global due to an unacceptable risk that the company's operations may cause severe environmental damage.