



Palm Oil's Black Box

How Singapore's national wealth fund has fueled a secret vehicle
for deforestation from Gabon to Indonesia

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The palm oil industry has long been notorious for its devastation of the vast rainforests of Southeast Asia, destroying the habitats of species like orangutans and gibbons, and stealing indigenous community land. The burning of these forests has sent massive amounts of haze into the atmosphere; in 2015 alone, this haze cut short the lives of an estimated 100,000 people across the region, including many in the regional business hub of Singapore. Worryingly, palm oil tycoons have recently sought to bring this model of plantation development to the rainforests of Africa. This report reveals how a single company, the Singapore-based agribusiness giant Olam, is driving the ecological crisis in both regions.

Mighty, in partnership with the Gabonese NGO Brainforest, sent undercover investigators to Africa and found Olam bulldozing Gabonese rainforests to establish monoculture palm oil plantations. In Asia, Olam has created a secretive market for rogue palm oil companies that is undermining the strong forest conservation and human rights policies recently adopted by most of the other large players in the palm oil industry, making it harder to prevent a recurrence of the haze crisis. Ironically, Olam is majority-owned by the people of Singapore through their national wealth fund, Temasek. As such, they are unwittingly contributing to the deforestation that puts their own air quality at severe risk. This report reveals, through remote sensing, on-the-ground field investigation, and supply chain analysis, the extent of Olam's impact across two continents. It also shows how this palm oil is making it into products of Olam customers such as Pepsico, KraftHeinz, ConAgra, Unilever, Mondelez, and Nestle. The report outlines the immediate opportunity that the Singaporean people, Olam's customers, investors, and the general public have to compel the company to change, and align its standards with industry best practices for sustainability and social responsibility.

Olam's Black Box

Olam once was a relatively minor player in the palm oil industry. But between 2011 and 2015, Olam's palm oil trade volume grew by twenty times—from 71,000 tons to 1.53 million tons.¹ The company now trades or handles around 2.5% of all global palm oil. While it's not the biggest palm oil company in the world, it *is* one of the biggest palm oil trading companies that has yet to adopt strong forest conservation and human rights policies consistent with other leading Singapore-based palm oil companies, including Wilmar International, Golden Agri-Resources, and Musim Mas.

Given that the vast majority of Olam's palm oil comes from unknown, third party

suppliers, there's reason to be concerned that Olam's significant volume of trading could provide an outlet for rogue palm oil suppliers engaged in deforestation.

In 2015, less than one percent of the total palm oil that Olam traded came from its own plantations and more than 99% came from third party suppliers. Olam failed to publicly disclose any of these suppliers, meaning that almost all of the palm oil it sells to global customers comes from unknown origins. And because Olam keeps its suppliers secret, it is impossible to know whether these suppliers are destroying protected rainforests, draining and developing on peatlands, or infringing on the rights of local communities around the world.

In contrast, Olam's competitors, including Wilmar, Musim Mas, and Golden Agri Resources, post the identities of their palm oil suppliers online and identify each of their suppliers' palm oil mill locations. This transparency allows independent monitors to check on suppliers to find out if they're adhering to industry-standard forest and human rights protections. If not, each of these companies has a transparent grievance mechanism through which civil society can lodge complaints of violations by the company or its suppliers. The companies then provide regular, public reports on the how they addressed these grievances.

Palm Oil's Bad Old Days Are Repeating Themselves in Africa

Although the palm oil industry's expansion has been damaging to nature and human health, until recently, this destruction was mostly confined to Malaysia and Indonesia, with much smaller pockets of production in Colombia, Nigeria, Thailand, and Papua New Guinea. Many a palm oil tycoon has surveyed the far reaches of the Congo basin imagining a new frontier for the industry. But until recently, a combination of community resistance, price volatility, and other less than ideal conditions have impeded the most ambitious of plans. These challenges have helped protect chimpanzees, gorillas, bonobos, and forest elephants who live in these forests, as well as the livelihoods of local African communities. But Olam – and through it, investors like Temasek – are bringing the same model of agricultural development that has destroyed vast natural landscapes in Southeast Asia to Africa.

One of the frontiers for this development is Gabon. The country is a Noah's Ark for biodiversity. Forests cover more than 80% of its territory, some of them over two million years old. These forests host around 700 types of exotic birds and 320 species of orchids and are home to an impressive range of iconic African wildlife such as gorillas, chimpanzees, forest elephants and mandrills. Gabon's many extraordinary national parks attract thousands of tourists annually and could generate significant revenue for the country. But Olam's operations are threatening Gabon's reputation as a wildlife paradise.

Starting in 2010, Olam entered into two joint ventures with the government of the Republic of Gabon to develop its palm oil business. Olam's plantations are slated to become Africa's largest palm oil operation. Under the first joint venture, Olam received a 300,000 hectare landbank for its concessions. This is more than four

times the total area of Singapore, where Olam is headquartered. Through this deal, Olam also scored rubber concessions, timber operations, fishing rights, a 16-year income tax holiday, and exemptions from normal tariffs on machinery, inputs, gas, oil, and fertilizers. GRAINE, Olam's second joint venture with the Government of Gabon, is a program incentivizing 30,000 Gabonese farmers to grow palm oil on 200,000 hectares as "smallholders" and sell it to Olam, according to local government and Olam officials.

Olam's deals with Gabon faced an almost immediate barrage of criticism. The NGO Rainforest Foundation UK investigated the 300,000 hectare allocation and found extensive primary forests on Olam's concessions that were habitat for endangered chimpanzees, forest elephants, gorillas, and the West African manatee. They also found that communities were denied the right to Free, Prior, and Informed Consent to



Deforestation in a Sampling of Olam Concessions in Gabon, 2012 to the Present



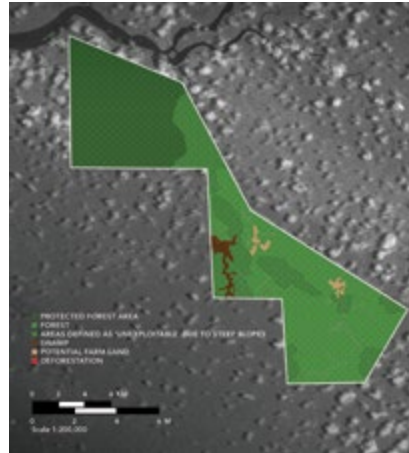
Above: Location of Olam palm oil concessions in Gabon (red), overlaid with other concessions given away for mining and forestry (orange boxes and black lines).

Right: Through expert analysis of satellite images, our team of researchers found that since March 2012, Olam has cleared approximately 20,000 ha of forests within Olam's oil palm concessions in Gabon. This estimate is at least double the Forest Stewardship Council's (FSC) 10,000 ha threshold for 'unacceptable' forest conversion.

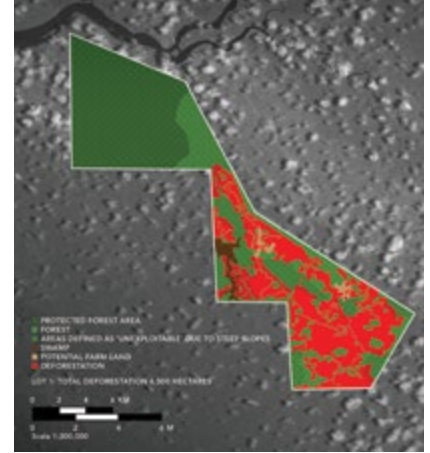
Legend

- Protected Forest or High Conservation Value
- Forest
- HCV Area Identified for Planting
- Areas Defined as "Unexploitable" Due to Steep Slopes
- Swamp
- Potential Farm Land
- Plantation Area in Savannah Areas
- Rivers with Buffer Zones
- Deforestation

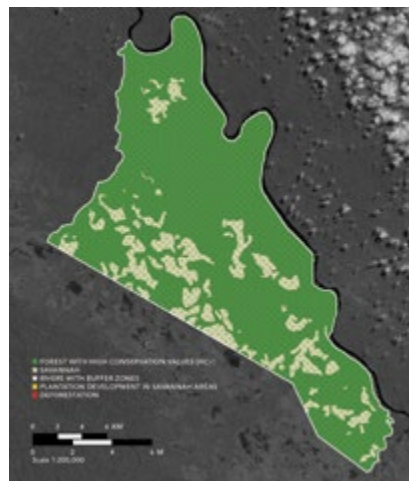
Lot 8 Before



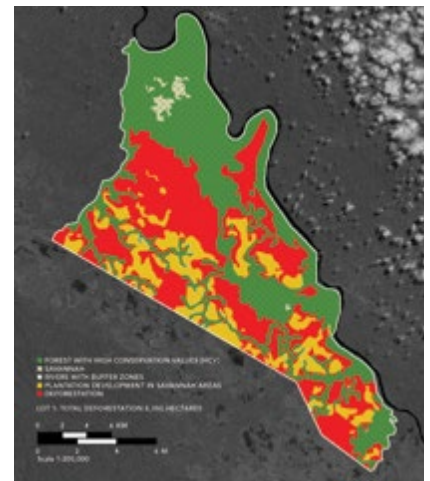
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Lot 1 Before



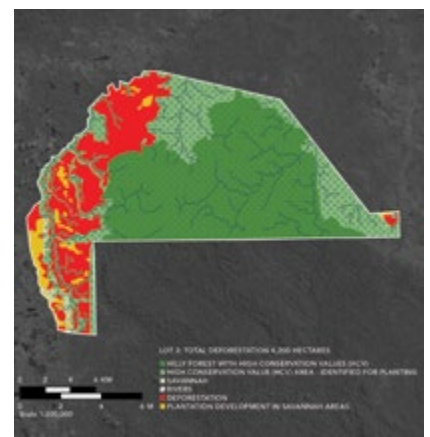
Lot 1 After



Lot 2 Before



Lot 2 After



development on their lands and that the land designated included culturally important sites for the local community. In response, Olam took some positive steps, including committing to protecting HCV areas and returning 63,780 hectares to the government as “unsuitable.” It also set aside other areas because they had such high social or environmental value that they should never have been given away in concessions in the first place. Nonetheless, serious problems persist with Olam’s Gabonese palm oil operations.

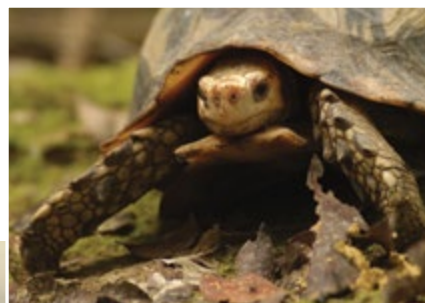
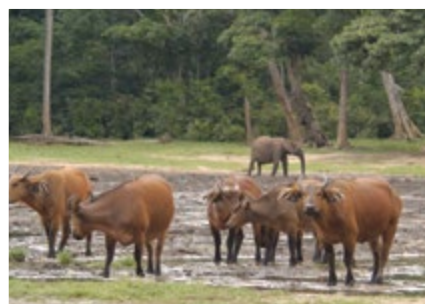
Based on our analysis of satellite data, we estimate that Olam cleared approximately approximately 20,000 hectares of forest across four of its Gabonese concessions in Awala and Mouila since 2012. As the photos presented here document, Olam has cleared mature, high quality forest. Field investigators saw and filmed bulldozers clearing large trees on a considerable scale. The videos and full technical report can be viewed at www.MightyEarth.org/BlackBox.

The priority for global conservation is to protect the world’s last remaining

large, intact forest landscapes, period. In these last great wildernesses, gorillas, chimpanzees, bonobos, and forest elephants can find some refuge from the creeping advance of the global agricultural frontier. The Congo rainforest is the world’s second largest rainforest after the Amazon. And it’s a critical storehouse of the world’s carbon: the Congo Basin holds an estimated 50 billion tons of carbon in its forest alone.² These forests are the last place any company should be looking to develop plantation agriculture. Sumatra³ and Malaysian Borneo stand as a reminder of what’s at stake: Just a few decades ago, they used to be almost completely forested, a paradise for orangutans, rhinoceroses, elephants, and exotic birds. In less than two generations, those wildlife paradises have been severely degraded; in parts, only 20-30% of its forest cover remaining.⁴

Olam has tried to justify its deforestation and its development of potential habitat for endangered great apes on the basis that this was being done for the economic development of Gabon. The company wrote:

Forests cover more than 80% of Gabon’s territory, some of them over two million years old. These forests host around 700 types of exotic birds and 320 species of orchids and are home to an impressive range of iconic African wildlife such as gorillas, chimpanzees, forest elephants and mandrills.





“Excluding all potential ape habitat from development would effectively preclude any kind of agricultural expansion, which is not compatible with the goals of the government’s ‘Gabon Emergent’ strategic plan; classifying habitat as HCV on the sole basis of the presence of any number of apes—rather than significant populations or concentrations—would have a comparable effect, precluding any responsible company from investing in Gabon and perhaps opening the door to less scrupulous developers.”⁵

But this argument is hard to square with another phenomenon our field team documented (and that had been widely rumored): Olam has imported Southeast Asian workers to Gabon. Moreover, it is unclear if Olam’s employees and smallholders will receive a living wage or adequate price for their product; local organizations report that communities feel they have been inadequately compensated for the loss of their lands.

In addition to its own land clearance, there is risk that Olam will outsource deforestation to local Gabonese farmers. The GRAINE program reportedly aims to cover a total of 200,000 hectares with 30,000 participants across 1,600 villages by 2020. GRAINE plantations are supposed to be compliant with Olam’s Sustainable Palm Oil Policy, with parcels subject to environmental and social due diligence validated by the Gabonese government, but the policy doesn’t guarantee protection of forests, as the government has too often allocated endangered species habitat for agricultural development. Instead of targeting forests, development should be focused on the 125 million hectares of degraded land available across the tropics,⁶ including 48 million hectares in Africa, where it’s possible to expand agriculture without threatening forests.

This doesn’t mean that high forest countries should be left out of development. On the contrary,

international donors around the world are making available large sums to help densely forested countries like Gabon develop. The Government of Norway, for instance, has signed agreements with Guyana, Brazil, Liberia, Democratic Republic of Congo, and Indonesia to provide the countries with up to a billion dollars for reducing deforestation, depending on their size. In “high forest” countries, these funds can be used to help achieve national development goals without destroying the nation’s natural resources. Indeed, Gabon is well-positioned to lead in conservation in Africa even without international financial incentives. The country has long relied upon offshore oil deposits, providing it with far greater amounts of hard cash than other countries. These savings which could be used to invest in development that can actually benefit its people, such as sustainable, diverse agroforestry that sustains local communities, and further development of its wildlife tourism.

Singapore: Victim and Unwitting Perpetrator

Temasek, a S\$242 billion investment fund owned by the Government of Singapore, has been investing in Olam since 2004, and in 2014 it became the majority shareholder of the sprawling agribusiness giant, which has become a major buyer of Indonesian palm oil. Ironically, through Temasek’s investments in Olam, the people of Singapore have unwittingly financed what is likely one of the world’s largest black boxes for the kind of unsustainably produced palm oil that fuels the haze taking such a severe toll on public health and the economy in Singapore.

In 2015 alone, more than two million hectares of Indonesian forest and peatland went up in smoke, due in

significant measure to purposeful burning to clear land for palm oil and paper plantations. For months, toxic haze reached from the site of the burning in Sumatra and Borneo into mainland Southeast Asia, and as far as Guam. Research published recently by Columbia and Harvard found that the excess air pollution from these fires in 2015 alone caused the premature death of an estimated 100,300 people across Southeast Asia. On many days, the pollution from these manmade fires even surpassed that generated by the United States’ entire economy. The economic consequences have been severe across the entire Southeast Asian region: the haze cost Indonesia alone more than \$16 billion (USD), according to the World Bank.

In Singapore, the 2015 haze prompted waves of public concern. Schools were shut, flights were cancelled, tens of thousands needed medical attention, and an estimated 2,200 premature deaths occurred as a result. In response, the Singaporean government approved the Transboundary Haze Law, giving it the authority to pursue civil and criminal penalties against companies whose deforestation and forest burning in Indonesia or Malaysia contributed to haze in Singapore. Besides child sex trafficking, this is the only time Singapore has created extraterritorial civil and criminal liability.

The Singaporean private sector has acted as well. Singapore-based companies like the palm oil giants Wilmar, Golden Agri-Resources (GAR) and Musim Mas

Rogue companies continue to clear rainforest in violation of their customers' policies and often government policy as well. They do so in the belief they can still find "black box" traders like Olam who will buy their product no questions asked, and then traffic it onto global markets where it can find its way into products like Burger King French fries, Krispy Kreme doughnuts, and Estée Lauder cosmetics.

have joined other traders in pledging not to buy any palm oil from producers who engage in deforestation, destruction of endangered wildlife habitat or peatlands, or exploitation of local communities. This government and private sector action seems to be making some difference. In many cases, palm oil suppliers are cleaning up their acts and investing in development of degraded land instead of forests or peatland.

But there are still many companies trying to keep up business as usual rainforest destruction. For instance, as we have documented in a previous [report](#), the Korean-Indonesian conglomerate Korindo destroyed more than 30,000 hectares of forest in Indonesian Papua since 2013. And palm oil giant First Resources has, through an affiliated supplier, driven clearing in the Heart of Borneo, one of the last areas with healthy orangutan populations.

Olam's Weak Standards for Forest Conservation

In addition to its lack of transparency, Olam's standards for forest conservation appear to be significantly weaker than its industry peers. Olam's sustainability policy commits it to protect High Conservation Value (HCV) forests and ecosystems, High Carbon Stock (HCS) forests, and peatlands, and improve the livelihood of local communities. But a closer look renders these commitments far less meaningful than the company proclaims. The fine print permits Olam and its suppliers to deforest areas of "low density logged over forest" so long as they do not contain any High Conservation Value land, even if doing so would violate the industry-standard

protections for High Carbon Stock forests. Instead of applying the strict definition of 'No Deforestation' now used by the major palm oil traders and paper companies,⁷ Olam argues that the definition of forests in need of protection should be "contextual." The reality is that there isn't a sustainable way to destroy a rainforest, regardless of the context.

During the two years prior to the publication of this report, Mighty's team has held multiple meetings with Olam staff, including CEO Sunny Verghese. In the meetings and through written communications, we have repeatedly urged Olam to join the

Olam's Customers



A list of Olam's customers from their March 2016 Investor Presentation.



How Palm Oil Is Threatening Great Apes

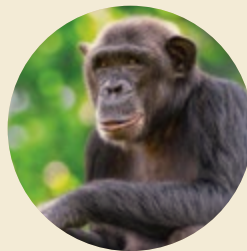
Deforestation for palm oil and other commodities such as timber, rubber, and palm oil has been particularly damaging to humans' closest relatives in the animal kingdom, our fellow great apes: chimpanzees, gorillas, bonobos and orangutans. These highly intelligent species, as well as their cousins the gibbons, depend on tropical rainforests for their homes. Indeed, all the great ape species build nests every night high up in the trees to sleep in. It is possible to expand commercial agriculture without threatening apes and gibbons, but it requires channeling development onto degraded lands.

In Africa, conversion of forests for commodity agriculture is a major threat to great apes. Of the known palm oil concessions, researchers calculated a 58.7% overlap between the land allocated for plantations and great ape habitat.⁸ Although chimpanzees, bonobos, and gorilla populations have declined in many countries due to poaching and habitat loss, Gabon's largely intact forests have remained a refuge. But a major increase in deforestation for palm oil and other commodities could threaten this sanctuary.



Orangutans Deforestation in Indonesia and Malaysia – much of it for palm oil – has wiped tens of thousands of square miles of orangutan habitat off the map. Big palm oil companies burn and bulldoze the once vast forests that were home to these furry orange forest giants who share 97% of their DNA with humans. Companies have issued bounties to workers who beat, burn, or set dogs to orangutans to stop them from eating the young palm oil shoots that have replaced their ancient forest homes. Because orangutan

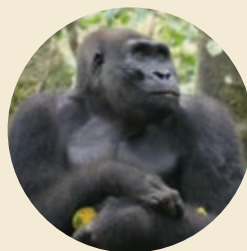
mothers fiercely defend their babies, palm oil workers occasionally shoot the mothers and then sell the babies into the pet trade, all in violation of Indonesian law. Dedicated volunteers working for organizations like International Animal Rescue and the Sumatran Orangutan Society try to save those they can, and bring orphaned baby orangutans to rescue centers where they try to teach them what their mothers would – how to return to the forest and survive. Only approximately 14,600 Sumatran orangutans are thought to remain in the wild.⁹



Chimpanzees One of the species most under threat are chimpanzees, humans' closest relatives, sharing 98.8% of our DNA. They eat mostly fruit, insects, and small mammals. Chimpanzees are known for their sophisticated social relationships, and work together in hunting and defense.¹⁰ They spend a significant part of every of each day grooming, tickling, hugging and kissing. They live up to 50 years in the wild in groups that average 35 individuals with mothers typically carrying their babies for four years or more.

But their human cousins have dramatically reduced their populations. At the beginning of the 20th century, there were likely between one and two million chimpanzees on Earth. Today, it is believed that there are fewer than 300,000 chimpanzees on Earth.

The Central chimpanzee is one of the four chimpanzee subspecies. Of the approximately 70,000–116,000 Central chimpanzees left alive in the world today, 64,000 live in Gabon. All four subspecies are classified as endangered by the International Union for the Conservation of Nature. Chimp populations are declining largely because of poaching, disease, and mechanized logging.¹¹



Gorillas Gorillas – the world's largest primates – are highly intelligent. They use tools, have highly complex vocalizations for communication, and are even capable of learning basic human sign language. Western gorillas live 30 to 40 years in the wild, in stable family groups of up to 22 individuals. Families generally comprise multiple females and one adult silverback male. Gorillas eat fruits, vegetation, and insects,¹² and like other great apes, build nests for sleep. Gorillas have noseprints which are unique to every individual,

much like human fingerprints. A famous captive-born gorilla named Koko was taught sign language, developed a library of about 1,000 signs, and could understand some 2,000 words of English.¹³ Suitable habitat for gorillas across central Africa has declined by between a third and a half in the last two decades. An estimated 35,000 western gorillas live in Gabon, making up a large percentage of the overall western gorilla population, which is estimated between 140,000 and 160,000. They are also listed as critically endangered.

rest of the industry in adopting strong forest conservation and human rights protections. As the publication date for this report approached, Olam posted some changes to its policies. For instance, Olam agreed to apply its sustainability policy to its third party suppliers, and not just its own plantations. This seemed like an important step forward, but again, Olam used the details in fine print to allow it to keep its black box humming. Rather than demanding immediate action, the company delayed the application of the policy to its suppliers – who represent more than 99% of its palm oil volume – until 2020. Putting off the implementation date is like waving a green flag at rogue palm oil companies telling them to get as much deforestation as possible done now – before the sustainability policy kicks in.

However, the company itself has proven that this kind of delay is unnecessary. It knows how to move fast when it has to – after all, as a commodity trader, it profits

from speed. In response to external pressure, the company instituted a ‘No Burning’ policy for its entire supply chain, effective immediately. While it’s impossible to verify Olam’s compliance because of its opacity, it was at least a step in the right direction on paper.

Banning burning, though, doesn’t do anything about the bulldozers responsible for the majority of deforestation. A bulldozer mowing down a rainforest can still get Olam’s green seal of approval until 2020. And, in any case, banning burning alone might not even have that great an impact on reducing fire. In fact, bulldozing forests and draining and clearing peat swamps makes the landscape highly vulnerable to fire. Many of the lands that burned in Indonesia in 2015 had been previously cleared or drained without burning, but that process left flammable slash all over the ground, drying up the landscape and leaving it susceptible to fire.

Breaking Promises to the Forest ——— Stewardship Council

In addition to its palm oil operations, Olam also holds the largest area of logging concessions in the tropics that are certified to the Forest Stewardship Council (FSC) standard, which is supported by major conservation organizations. FSC certification brings a significant premium to wood products sold through it. In 2011, Olam acquired the FSC certified operations of Congolaise Industrielle des Bois (CIB) in the Republic of Congo. As a result of this acquisition, Olam was required to explicitly commit at a group-wide level to not be involved directly or indirectly in “unacceptable forest activities” including “the significant conversion of forests to plantations.” As defined by FSC policy, *all* of Olam’s operations worldwide must

adhere to minimum FSC benchmarks in order for them to keep their certification in the Congo. Amongst other stipulations, FSC policy states that company-wide forest clearance must not exceed 10,000 hectares in a five-year period.

Olam’s clearing of approximately 20,000 hectares of forests across four of its concessions in Gabon alone is clearly in excess of the 10,000 hectare FSC threshold. In addition, the company’s other concessions in Gabon and its operations in other parts of the world mean the actual amount cleared by the company is likely far higher. Mighty will therefore file a complaint about Olam’s violations with the Forest Stewardship Council.



Top: A Malaysian worker saws into a tree on Olam’s concessions in Gabon.

Top and bottom: Screenshots from an undercover video of Olam deforestation.

© Brainforest, October 2016



Black Box, Green Wash

Olam has shown a capacity to change when its operations face scrutiny. When criticized, it previously backed out of deforesting some of the most ecologically important areas in Gabon that included primary forest and RAMSAR-designated wetlands containing manatee habitat. And it adopted a ‘no burning’ policy for its supply chain. But it has continued deforestation, worked to undermine global progress at protecting the world’s great intact forest landscapes and is lagging its peers in establishing a credible, immediately effective conservation policy.

While Olam may lag on sustainability, it is the unquestioned industry leader when it comes to sustainability rhetoric. The company is always happy to sponsor sustainability conferences, confabs, and

elite meetings. Olam CEO Sunny Verghese frequently flies around the world to deliver eloquent, thoughtful panegyrics to Mother Earth in front of the global elite.

“One of the meanings of the word Olam is ‘enduring’ or ‘everlasting’ (in Hebrew),” said Verghese. “I believe the only way we can build an enduring business is to put sustainability at the heart of our business. This is reflected in ‘Growing Responsibly,’ our core purpose, which guides us to pursue profitable growth in an ethical, socially responsible and environmentally sustainable way.”¹⁴

At the UN High Level Thematic Debate on achieving the Sustainable Development Goals in New York,

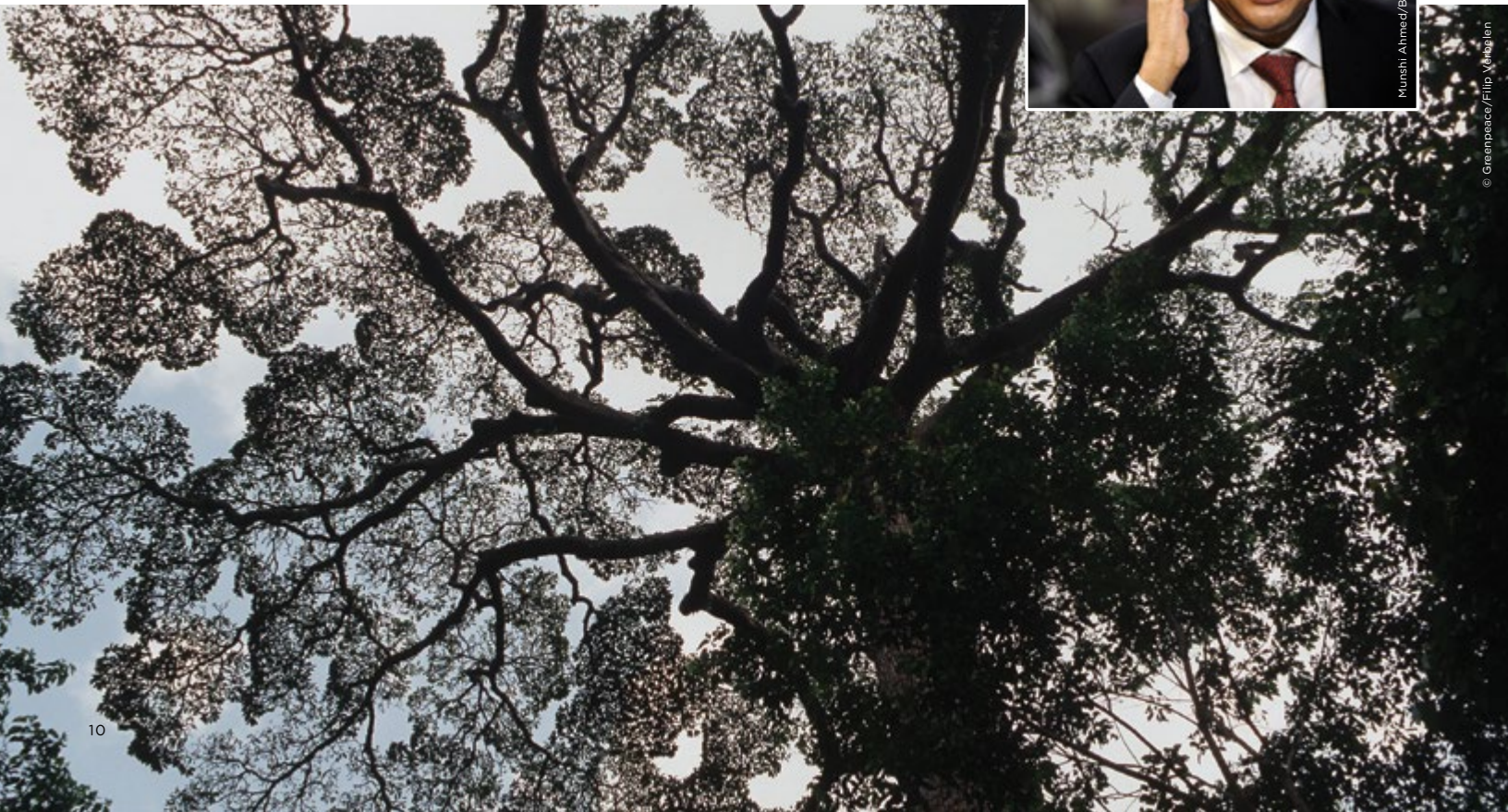
Verghese stated, “Sustainability is at the core of building an enduring business... If after all of this hard work and overwhelming effort, if you are not going to be leaving a better world for our children, what is the point of it all?”¹⁵ Indeed, Verghese has been the primary mover behind the Global Agricultural Alliance, a new CEO-level forum that includes 36 agribusiness CEOs, which is dedicated to achieving the United Nations Sustainable Development Goals. Meanwhile, Verghese’s bulldozers are razing the Congo rainforest, and his traders are covertly buying palm oil from unnamed third party suppliers. It is time for Olam to live up to its green rhetoric by taking meaningful action to end its deforestation across its global operations and supply chain.

Below: Upward view of crown of Moabi tree in Gabon.

Right: Olam CEO Sunny Verghese.



Munshi Ahmed/Bloomberg via Getty Images



© Greenpeace/Filip Verbeelen

Change Olam, Change the World

The governments of Southeast Asia and responsible leaders of the palm oil industry are trying to chart a more sustainable future. New policies, new resources, and new personnel are having an impact. However, there's more that needs to be done before the world's forests and their wildlife are protected – and before the industry's reputation is restored. The biggest challenge responsible

governments and palm oil companies face is that too many of their suppliers are still trying to do business the old way – through massive deforestation, killing of wildlife, displacement of indigenous communities, and poor treatment of workers. They think they can get away with it because of the continued existence of black box traders like Olam who buy their product in secret.

But Olam can be changed. Pressure has changed it in the past. And by changing, Olam can help solidify the sustainability progress the broader industry has already made.

There are several steps that can stop Olam's deforestation and set a precedent for the entire industry:

1 The Government of Singapore should ensure that Temasek is fulfilling its mission to “generate sustainable returns beyond our present generation” as “a responsible corporate citizen,” and that it is upholding its pledge to recognize environmental, social and governance factors. It should insist that Olam raise its practices to at least industry-wide standards. That means adopting the industry standard for protecting High Carbon Stock forests (HCSA), both in its trading operations and in its plantations in Gabon and elsewhere.

2 Temasek needs to ensure that Olam joins the transparency revolution that the palm oil industry and much of global agribusiness has started to embrace. The company should join the other major industry players in posting the identity of its suppliers online with their mill and plantation locations, and sharing concession maps of its suppliers through the Global Forest Watch platform.

3 Minority investors such as Mitsubishi, the International Financial Corporation, Norway's sovereign wealth fund, as well as BlackRock, Hartford, Prudential, Vanguard, Fidelity and other institutional investors, should demand the same – or immediately divest.

4 Olam customers – the world's leading consumer food companies – should wake up to the reality that Olam's environmental panegyrics mask a company that lags far behind some of its less vocal competitors. Unless Olam changes immediately – and commits to restoring forests and wildlife habitat it has destroyed – they should look to the large number of companies with stronger standards and better practices for their raw materials. They should apply this policy not just to palm oil, but to Olam's entire business: cocoa, coffee, cashews, rice, and all the other products in its portfolio.

5 All palm oil customers, including both consumer-facing companies and the major traders like Olam, should immediately establish a comprehensive system to monitor and police deforestation modeled on Brazil's highly effective moratorium on deforestation for soy.

6 Given Olam's clear violation of its criteria, the Forest Stewardship Council should investigate Olam and suspend or revoke Olam's FSC certifications for the entire Group.

7 Olam should adopt a comprehensive, cross-commodity “No Deforestation, No Peat, and No Exploitation” policy, adhere to the HCSA methodology, and make its sustainability policies effective immediately throughout its supply chain. It should also develop a time-bound implementation plan and report regularly on progress.

8 Olam should provide sufficient funds for the ecological restoration of an area 10 times larger than what it has destroyed in Gabon, and use the same principle for restoration elsewhere. Because centuries or millennia of carbon and biodiversity are lost through destruction of forests, it generally requires at least ten times the area of ecological restoration to make up for the loss.

9 Olam should meet with indigenous and local communities negatively affected by its operations, and implement a community-approved mitigation plan. It should establish a public grievance procedure.

10 Olam should immediately announce a moratorium on all forest clearing as it progresses on the steps above.

Starting with the release of this report, we will be launching a global campaign to persuade Olam, its owners, and customers to shut down the black box, become a responsible member of the global agricultural community, end deforestation once and for all, and compensate for past damage. The forests and people of Singapore, Southeast Asia, and Africa cannot wait for action.



Endnotes

- 1 Olam, "RSPO Annual Communications of Progress 2015," 2015. <http://www.rspo.org/file/acop2015/submissions/olam%20international%20limited-ACOP2015.pdf>
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- 3 Mapping and monitoring deforestation and forest degradation in Sumatra (Indonesia) using Landsat time series data sets from 1990 to 2010 Belinda Arunarwati Margono^{1,2}, Svetlana Turbanova³, Ilona Zhuravleva⁴, Peter Potapov³, Alexandra Tyukavina³, Alessandro Baccini⁵, Scott Goetz⁵ and Matthew C Hansen³ Published 19 July 2012 • 2012 IOP Publishing Ltd Environmental Research Letters, Volume 7, Number 3 iopscience.iop.org/article/10.1088/1748-9326/7/3/034010
- 4 Jane E. Bryan, Philip L. Shearman, Gregory P. Asner, David E. Knapp, Geraldine Aoro, Barbara Lokes (2013). Extreme Differences in Forest Degradation in Borneo: Comparing Practices in Sarawak, Sabah, and Brunei. *PLoS ONE* 8(7): e69679. doi:10.1371/journal.pone.0069679
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- 6 Dinerstein, E., Baccini, A., Anderson, M., et al. (2014). Guiding agricultural expansion to spare tropical forests. *Conservation Letters*, 8, 262–71. DOI: 10.1111/conl.12149.
- 7 The High Carbon Stock Approach is adhered to by the world's largest palm oil companies. For more information, visit www.highcarbonstock.org.
- 8 United Nations Environment Programme/Great Apes Survival Partnership, Palm Oil Paradox: Sustainable Solutions to Save the Great Apes, 2016
- 9 "The most recent population estimate for the Sumatran Orangutan is 14,613 individuals, in a total area of 17,797 km of forest (Wich et al. 2016). Excluding populations of fewer than 250 individuals (i.e., considering only populations that are potentially viable over the long term) leaves just 13,835 individuals. The vast majority (90.2%) occur in the Leuser Ecosystem, while other populations are found in the Sidiangkat, Pakpak and Batang Toru forests. The 2016 estimate is higher than the previous estimate of around 6,600 individuals remaining (Wich et al. 2008)." www.iucnredlist.org/details/39780/0
- 10 Arcus Foundation, State of the Apes 2015, Industrial Agriculture and Ape Conservation. <http://www.stateoftheapes.com/>
- 11 Oates et al., 2008a
- 12 (Arcus Foundation, State of the Apes 2015, Industrial Agriculture and Ape Conservation. <http://www.stateoftheapes.com/>)
- 13 <http://www.koko.org/>
- 14 Business Commission, "Olam CEO Sunny Verghese Joins the Business Commission." 12 September 2016. <http://businesscommission.org/news/press-release-sunny-verghese-co-founder-group-ceo-of-olam-joins-the-business-sustainable-development-commission>
- 15 Youtube. "Sunny Verghese, Olam's Co-Founder and CEO speaks at the UN's High Level Thematic Debate on achieving the Sustainable Development Goals in New York." Published on 25 April 2016. <https://www.youtube.com/watch?v=AQbXkZj7TpE&t=253s>



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Front cover: Olam palm oil plantation, Ngounié, Gabon, March 2014, © Anonymous. Back cover: Sun setting behind silhouetted forest in Minkebe Forest Reserve, Gabon, 2003, © Markus Mauthe/Greenpeace

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