



Orangutans were once distributed widely across Asia. The area inhabited by the great apes today is about 5 per cent of their original range.

# THE \$80 MILLION QUESTION

The world spends a huge amount of money on orangutan conservation every year but their numbers are still declining. What's going on, why isn't palm oil to blame and what can we do to arrest the downward curve?

*By James Fair*

According to Erik Meijaard, a conservation scientist who has been working for almost 30 years in South-East Asia, the world spends \$80 million (about £60 million) a year on orangutan conservation. Erik and a number of colleagues are currently trying to determine exactly where this money goes. "We are looking at who is spending it – governments, NGOs, research organisations, sanctuaries, oil and timber companies, where the money comes from and what it is being invested in, and whether we can link that spending to local orangutan population trends," he tells me during a video call from Brunei, where he lives for much of the year.

Though Erik's research is unfinished, there's one thing he can say with certainty. "What is clear is that we are spending all that ►

money but we are still losing orangutans.” In other words, it’s not working.

Orangutans live on the Indonesian islands of Borneo and Sumatra, and are correspondingly separate species. There is also a third species, the Tapanuli orangutan, also found on Sumatra (see p55). Here are the broad-brush figures: in 2016, the IUCN estimated Bornean orangutan numbers at just over 100,000 (a figure forecast to drop to 47,000 by 2025), with about 15.5 million hectares of available habitat. Sumatran orangutans, in contrast, are considerably rarer, with an estimated 14,000 individuals contained within a much smaller area, mainly the Leuser Ecosystem, a 2.6 million hectare swathe (that’s 1.3 times the size of Wales) of rainforest in the island’s north.

Borneo and Sumatra may be very different in terms of the status and conservation of their resident orangutans, but they do have one thing in common: neither are having much success in safeguarding these apes.

**Uncomfortable truth**

So, what’s going wrong? “If you go on Twitter, the solution to orangutan conservation is to stop palm oil, and I can guarantee you that won’t work,” Erik tells me. “The plantations are already there – do you think they will be turned back into tropical rainforest tomorrow?”

Looking at Borneo, the uncomfortable truth is that, while vast amounts of habitat have been lost in the past to palm-oil plantations – and deforestation is continuing – the biggest threat to its orangutans today is illegal killing. In 2011, Erik and other scientists published a landmark piece of research based on surveys involving 7,000 people from 700 villages. From this, they estimated the rate of killing of orangutans in Kalimantan (the Indonesian part of Borneo) at between 2,000 and 3,000 individuals every year over the past 40 years. The level of slaughter exceeded the species’ reproductive rate, suggesting that “unless it can be reduced, most Kalimantan populations will go extinct.”

“We have just repeated the survey to see whether the rate of killing has changed,” Erik says. “It hasn’t. If anything, it may have increased, so killing is still the key factor that is driving down orangutan populations.”

But why are people killing orangutans? Well, about half of it can be attributed to



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increased displacement of animals caused by habitat loss, of which some – but not all – will be down to palm oil plantations. But the other half is people hunting in the forest and opportunistically shooting the orangutans they encounter.

The fact is that humans have probably been killing orangutans for tens of thousands of years. They were once found as far north as Vietnam and Yunnan in China, but no longer. “I’m pretty certain they disappeared because humans walked into their territory some 80,000 years ago and found they were very tasty and easy to hunt,” says Erik.

In case you are wondering, it is illegal to kill orangutans, but in the remote areas they

inhabit, enforcement of this law is neither a priority nor largely effective.

**Line of fire**

In Sumatra’s Leuser Ecosystem, the killing of orangutans is also a problem, though no one has documented it in the way Erik has in Borneo. Panut Hadisiswoyo set up the Orangutan Information Centre (OIC) 20 years ago, and despite years of raising awareness about orangutans, the animals are still targeted. “I think people are better educated and have more respect for orangutans today, but they shoot them because they take their crops or consider them dangerous,” he says. “This is a by-product of deforestation creating conflict.” ▶

**Above: mothers keep youngsters close to them for the first eight years – longer than any other great ape (apart from humans). Top right: large areas of Indonesian rainforest have been cleared to make way for palm oil plantations (right). Below: in 2017, the Tapanuli orangutan became the first new great ape species to be discovered since 1929.**



**The third orangutan**

Until 2017, the Tapanuli orangutan *Pongo tapanuliensis* was considered to be the same species as the Sumatran, but studies have shown both morphological and genomic difference, and that the two have been separated from each other for between 10,000 and 20,000 years.

It is entirely confined to about 1,230km<sup>2</sup> of forest in the Batang Toru Ecosystem, still in north Sumatra, but south of the Leuser Ecosystem, where its close relative is mainly found.

There are fewer than 800 Tapanuli orangutans split into three separate populations, and conservationists say they are threatened by plans to build a hydro-electric dam that would further fragment their remaining habitat.



**Roads fragment the habitat and result in the orangutans being divided up into ever-smaller populations.**

Above: a Sumatran orangutan is released back into the wild by the OIC. Studies suggest that mortality rates of released orangutans vary from 20 to 80 per cent.

Top right: a conflict response unit searches for an orangutan in an area impacted by logging. Right: a mother and baby are rescued from fragmented forest.



The OIC rescues and releases orangutans found to be causing problems to farmers, and Panut says its data shows a correlation between the number of rescues that need to be carried out and deforestation rates.

The OIC rescues about 25–30 orangutans a year, and this number has been largely stable over the past decade. “Realistically, things are not getting better,” Panut says.

But, again – don’t blame palm oil. Yes, vast swathes of Sumatra have been turned into palm oil plantations, but much of the deforestation dates back 100 years to when the demand for rubber was booming. Many of those old rubber plantations have been converted to palm oil, though there is some ongoing palm-oil expansion in lowland areas.

Nevertheless, says Ian Singleton, director of the Sumatran Orangutan Conservation Programme (SOCP), “large-scale destruction of forest within the Leuser Ecosystem is not the biggest problem.” Ian worked as an orangutan keeper at Gerald Durrell’s Jersey Zoo for eight years before heading off to Indonesia to do fieldwork, and has been there pretty much ever since. “What’s problematic now is erosion of the edges and [the building of new] roads, especially in the north-east.”

Roads bring people, fragment the habitat and increase encroachment. They result in the orangutans being divided up into ever-smaller populations. Studies suggest that a population needs to be at least 500-strong if it is to be viable in the long-term.

Helen Buckland, director of the Sumatran Orangutan Society (SOS), which acts as a fundraising and technical support organisation to the OIC, says this gradual chipping away at intact forest is the biggest threat to the species. “It’s likely that most forest loss now and in the future is being caused by smallholders, not by industrial-scale plantations,” she says. In the past 20 years, about 200,000ha of orangutan habitat has disappeared, and the rate of loss is not decreasing.

**Finding the solution**

So, how do you stop this? The answer is quite simple: provide people who live in these areas with alternative livelihoods that don’t require them to clear areas of land to

plant subsistence crops. Part of the solution is paying them not to fell trees. “So much orangutan habitat is within the jurisdiction of villages,” says Helen. “They’re the units we need to look at. We monitor the forest, and if it’s still standing, they get paid.”

Anyone wanting to help save the orangutan would be better off becoming an expert in international development than a hugely knowledgeable zoologist, Helen suggests. She cites a study that found that until per capita incomes in Indonesia reach \$20,000 a year, forest loss will continue. But average incomes are only \$4,000, and in rural Sumatra, where orangutans are found, they are likely to be even less.

Liana Chua, a lifelong anthropologist, who is now using her skills to identify ▶

**Orangutans in numbers...**

**95%**

The amount of time orangutans, the largest arboreal mammal in the world, usually spend in trees.

**10,000**

The amount of square kilometres lost to palm oil from 2000 to 2010. Sabah, central Kalimantan and coastal peat swamps in Sumatra were the areas most affected.

**1/4**

The proportion of orangutans living in formally protected areas. Even these populations are not necessarily safe from hunting or habitat loss.

**3,320**

The number of individuals taken in by orangutan rehabilitation centres between 1964 and 2008, one-third of which were released.

**86%**

The decline forecast for Bornean orangutans between 1973 and 2025, due to the combined impacts of habitat loss, habitat degradation and illegal hunting.

**500**

The minimum population size that is believed sufficient to guarantee long-term persistence.

**140**

The maximum weight, in kilograms, of an adult male. Males can be 1.5m tall with an arm span of 2.4m, and may be twice the weight of females.

**5%**

The area of original range inhabited by orangutans today. Hunting by humans and natural environmental changes are the two key causes of this long-term decline.



**“We may want them in a beautiful, untouched rainforest but that may not be the reality.”**

**Top left: as frugivores, orangutans play a vital role in the dispersal of seeds. Above: the OIC creates rainforest nurseries to help restore habitat. Below: a Sumatran jungle VIP.**



how the killing of orangutans could be stopped or reduced, says it's crucial for conservationists to realise that most Indonesians do not understand the western fascination for orangutans. This is confirmed by PhD student Paul Thung, who is carrying out the fieldwork for the project.

“Orangutans do not take a very exceptional place in Bornean people's lives, they are placed on a continuum with other animals,” he says. “In some ways, they are less exceptional than other animals because they have less relevance to their lives.”

Except, of course, when they compete with people for fruit. “One of their main vices is picking and dropping unripe durians [that famously smelly fruit beloved by Indonesians],” says Paul. “This is a fundamentally anti-social thing to do, because it's understandable if you want to eat durians, but why pick them if they're not ripe?”

While there may not be an obvious solution to this – no one's suggesting you can teach orangutans not to be so careless with unripe durians – Liana believes orangutan conservationists need to substantially rethink how they operate. It requires longer-term thinking with fewer direct targets and a more deliberate policy of cultivating relationships with as many communities that live with the animals as possible.

They may need to change the image they present of orangutans, too, which is largely built around “fundamentally western ideas” of them being special, magnificent

animals and “gardeners of the rainforest”. Villagers in Borneo don't see them in those terms. “Our research suggests you'd be better off making friends first, and then thinking about orangutans,” says Liana. That's not to say that conservationists don't have the best intentions, Liana adds – it's just they may not completely appreciate how they and orangutans are viewed by Indonesians in remote locations.

**Change of approach**

All of this is very far removed from the way orangutan conservation is projected by western NGOs and in our mainstream media.

Images of baby orangutans in nappies or animals being plucked from the jaws of death and translocated by 'heroic' rescue teams, many experts believe, are counterproductive to the species' long-term interests.

“If you are doing that, then you have failed,” says Ian. “That there is an orangutan that needs to be rescued means you are not succeeding.”

**Spending practically all their time in the treetops, these arboreal apes create leafy nests to rest in.**



Clickwise from top left: Suse/Estrebas/Minden/NPL, Andrew Wainman/NPL, Andrew Wainman/NPL, Cyril Russo/Minden/NPL, David Havel/Harry

Erik is even more damning, saying that translocations are a waste of time and money and may undermine broader conservation efforts. “They look good on paper, but you might as well shoot the orangutan,” he says. “That's honestly what I think.”

One reason he says this is because there is an increased understanding that orangutans can survive in landscapes that include degraded forest areas and palm-oil plantations or timber concessions. By removing the apes, you give the green light for what's left of the forest to be cleared. You may also be taking out breeding males that are important to a wider population's productivity. What we have to do, he says, is learn to live alongside the orangutans that inhabit these areas.

It's not that difficult, he adds, it's just that it doesn't fit with our current notions of what an orangutan is. “Could orangutans become a bit like semi-urban species in

Europe, such as foxes?” he ponders. “We may want them in a beautiful, untouched rainforest but that might not be the reality.”

He believes that a radical new funding concept that connects individual donors directly with farmers affected by orangutans could be the answer. Could you have a system that bypasses governments and NGOs and allows “someone sitting on a couch in London to make blockchain payments to a farmer or community member in Borneo who has the power to decide if they harm an orangutan or not?”

**Spending wisely**

A pilot project, called Linnaeus, developed by the writer and economist Jonathan Ledgard calls this “the interspecies money transfer service”. The idea, it says, is “to make it possible for large numbers of humans to send money directly to species threatened with extinction – starting with

wild animals, then trees, plants, insects and even microbial colonies.” Orangutans and giraffes are two species highlighted as being suitable recipients of this funding.

The bottom line is that all is not lost. Erik says that neither Bornean nor Sumatran orangutans are going extinct any time soon, whatever the palm-oil campaigners say. They're surprisingly resilient and there's plenty of habitat left for them to survive in. Even better, there's plenty of money – \$80 million, remember – to play with: we just need to find better ways of spending it. 🐼



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**FIND OUT MORE**

OIC: [rainforestprojects.org/project/orangutan-information-centre](http://rainforestprojects.org/project/orangutan-information-centre)