

Restoring the orangutan in Whole-Earth or Half-Earth contexts

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A new study by 33 orangutan experts from around the globe assessed what would happen to Bornean orangutans in the next decade under different management assumptions. The good news is that the

researchers predict that if orangutan killing and habitat loss were stopped that orangutan populations could rebound and reach 148% of their current size by 2122. So, there is hope.

Ever since [modern humans](#) walked into the orangutan range on the Asian mainland some 80,000 years ago, the species has been persecuted. Starting with bow and arrow, then blow pipes and ultimately shot guns, people have hunted orangutans. Unsustainable killing played a major role in the orangutan's extinction from southern China, Thailand, Vietnam, Cambodia, the Malay Peninsula, the island of Java and also various parts of Borneo and Sumatra where the species is absent.

People also started to convert the orangutan's forest home into agriculture and plantations, neither of which provide the apes with good habitat. Orangutans that lost their forest died or a handful were translocated. Indonesian and Malaysian deforestation rates are down, as are expansion rates of oil palm and other crops. So how should orangutan conservation proceed from here? What are the best strategies? This is the question the researchers tried to address by looking at different scenarios.

Current management

Under current management practices, orangutan populations may decline by around 27% by 2032. That decline would be in addition to the ca. 100,000 orangutans lost of Borneo between 1999 and 2015.

Half-Earth

They also estimated the likely impact from implementing two global proposals on conservation more generally: "Half-Earth" and "Whole-Earth." Half-Earth was an idea proposed by the late E.O. Wilson who

envisaged that half of Earth's surface should be protected as wild nature if humanity wants to prevent further biodiversity losses. They tested this theoretical proposal by considering the ramifications of permanent protection of at least half of Borneo's forests in Indonesian Kalimantan and Malaysian Sabah.

Half-Earth would be comparatively easy to achieve and is predicted to reduce the decline in the orangutan population by 2032 by at least half compared to current management. They found that with effective implementation, Half-Earth is predicted to be the best strategy for orangutan protection on Borneo, although it would still result in some orangutan losses.

Whole-Earth

They also tested Whole-Earth, a counterproposal against Half-Earth that called for a major overhaul of current political and economic systems, and more equitable conservation strategies based on community rights to manage forests.

They predict that rapid implementation of Whole-Earth on Borneo would lead to the highest orangutan losses: 56% population decline within the next 10 years. This was because the fundamental changes required under Whole-Earth would take much more than 10 years to implement and could leave a power vacuum in the meantime.

Half of land mass protected

Interestingly, the analysis showed that both the Indonesian and Malaysian governments had more or less reached the objective of legally designating half of the land mass as protected in Kalimantan and Sabah respectively. With 67.1% of Kalimantan's land mass designated as State

Forest, Indonesia already exceeds the Half-Earth goal of locking in 50%, if indeed the Indonesian government would commit to retaining these areas as permanently forested and enforcing land protection policies. Malaysian Sabah has also exceeded the Half-Earth goal, with 65% of the State remaining forested.

This is all on paper though. A lot of effective conservation investment and management would be needed to ensure that indeed these orangutan habitats would remain permanently forested, and that the other key threat—unsustainable killing—is effectively addressed. To prevent killing, effective engagement with [rural communities](#) on Borneo is needed, and this is where elements of the Whole-Earth approach are helpful. The scientists found [broad consensus](#) that much more sensitive and equitable engagement with these communities is among the key requirements of facilitating peaceful co-existence between people and orangutans.

Combining Half-Earth and Whole-Earth

In conclusion, the researchers support the implementation of the Half-Earth approach in the next decade, while carefully introducing key elements of equity and social change from the Whole-Earth approach that would play out over a longer time frame.

Thus, the authors encourage both the Indonesian and Malaysian government to build on their commitments to setting aside at least half the land area of their countries for conservation while enforcing the policies that ensure forests are conserved and orangutan killing is halted. They call on everyone else also needs to step it up. NGOs and orangutan sanctuaries need to find ways to encourage people and orangutans to live side by side, rather than translocating orangutans away from people, as often happens now.

Conservation donors need to direct their funding towards strategies that work best for protecting wild orangutan populations. Communities need to be empowered, but also be given responsibility for coexisting with orangutans. And companies—logging, mining, or plantations—need to be recognized for their role ensuring that the protected [orangutan](#) can survive and thrive on the lands that they manage.

It is not an easy path ahead, but solutions exist that can ensure the long-term survival and even population recovery of the Asian red ape.

The study appears in *Oryx*

More information: Erik Meijaard et al, Restoring the orangutan in a Whole- or Half-Earth context, *Oryx* (2022). [DOI: 10.1017/S003060532200093X](#)

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