



Policy Brief

SUPPORTING INDIGENOUS PEOPLES WHO MANAGE INTACT FORESTS IS CRUCIAL TO ACHIEVING CLIMATE GOALS

Wildlife Conservation Society and 15 partner organizations¹

Key messages

- Global climate targets are unlikely to be met without conserving the world's remaining intact forests - those forest ecosystems that have remained free from significant industrial and intensive agricultural activity and hence provide the highest levels of many ecosystem services.
- 24 percent of all forests globally are mapped as Intact Forest Landscapes, but nearly a tenth were lost between 2000 and 2016.
- Newly released maps show that at least 35% percent of Intact Forest Landscapes are owned or managed by Indigenous Peoples, with high proportions in all regions of the world. Although these areas also face strong development pressures, rates of forest loss tend to be lower than in other lands.
- The findings reinforce growing calls to support and strengthen Indigenous management systems, in recognition of the need to secure both recognition of the underlying rights of these communities and globally significant environmental benefits.

Introduction

Forests and other natural climate solutions can provide more than 30 percent of the mitigation action needed by 2050 to keep global warming below 2°C (Griscom *et al.* 2017) – widely believed to be the threshold to avoid catastrophic climate change. However, many scientists argue that this target will not be met without conserving our remaining intact forests, that is, those forest ecosystems that have remained unfragmented and free from significant industrial activity. A major recent review showed that intact forests provide exceptional levels of many ecosystem services, including carbon storage, carbon uptake and the maintenance of local climates and watersheds (Watson *et al.* 2018).

Intact forests face numerous threats and require a wide range of protective actions. One key approach is to support the efforts of people who have traditionally managed the lands, notably Indigenous Peoples². For example, Indigenous Peoples manage at least 24 percent of above-ground carbon in tropical forests (RRI *et al.* 2016). In some places these critical carbon stocks and sinks (WHRC and EDF 2015) are at greater risk because of the lack of recognition of land rights for Indigenous Peoples and local communities, and inadequate support for their efforts to protect and manage the land.

This study presents new information on the extent to which the efforts of Indigenous Peoples are important for the protection of the world's most intact forests.

Approach

We analysed the overlap between Indigenous Peoples' lands and Intact Forest Landscapes in 2000, 2013 and 2016. To do this we combined two new datasets. A major recent study created the first global synthesis map of the lands that Indigenous Peoples manage or have tenure rights over, drawing on 127 data sources, including many local and national datasets (Garnett *et al.* 2018). This dataset was compiled by researchers from more than 15 different institutions, led by a group from Charles Darwin University, Australia.

¹ See page 5 for full list of authors and participating institutions.

² Indigenous People are defined here as 'people who define themselves as Indigenous are descended from populations who inhabited a country before the time of conquest or colonisation, and who retain at least some of their own social, economic, cultural and political institutions' (Garnett *et al.* 2018)

A second recent study³ updated the global map of Intact Forest Landscapes (IFLs), a dataset that stretches back to 2000 and shows the location of large, seamless areas of predominantly forested land free from visible signs of industrial human activity such as agriculture, roads and power lines (Potapov *et al.* 2008, 2017). This map is maintained by the IFL Working Group, which is led by the University of Maryland.

For more information on the methods used please see Annex 1. The areas of overlap identified are a conservative estimate since comprehensive maps of Indigenous Lands are not yet available for some key countries with significant geographic extent of intact forests (e.g. Canada), and this study also omits areas managed by long-established local communities in regions such as Melanesia that do not technically meet our definition of ‘Indigenous Peoples’, but have a comparable relationship with their land and resources.

What was known at the start of the study

Indigenous Peoples manage or have tenure rights over at least 37.9 million km² (28%) of global land, including at least 13.3 million km² (23%) of land in the forest zone, and much of that land is relatively ecologically intact (Garnett *et al.* 2018). There is a large and growing body of evidence that Indigenous management is effective in protecting forests (Stevens *et al.* 2014) – for example, a 2015 study found that deforestation rates in the Amazon were five times greater outside Indigenous Peoples’ territories and conservation units than they were inside those areas (RAISG 2015).

In 2016, Intact Forest Landscapes covered 11.6 million square kilometers, or 24% of all forests globally (Potapov *et al.* 2017). They are concentrated in five major regions, three in the tropics (the Amazon, Central Africa and Borneo/New Guinea) and two in the boreal zone (the far north of Russia and Canada -Alaska). They are disproportionately valuable for the environmental services that they provide, not least for their role in climate protection (Watson *et al.* 2018). For example, they are estimated to absorb around 28% of the world’s carbon pollution annually (le Quéré *et al.* 2018), while also storing very significant carbon stocks – around ten years’ worth of human-caused emissions. They are also more resilient to climate change (Watson *et al.* 2018). The global extent of IFL has decreased by 9.4% (1.2 million km²) since 2000, with losses caused mainly by agriculture, industrial logging, extractive industry, expanding infrastructure and anthropogenic fires (Potapov *et al.* 2017). The 2016 data also showed that the rate of loss is accelerating.

Results

In 2016, IFLs were mapped in 65 countries, including 50 countries with Indigenous Peoples’ land mapped in dataset. The analysis finds that at least 4.2 million km² (35.8%) of the world’s remaining IFLs are managed or owned by Indigenous Peoples (Figure 1). This represents 10.9% of all Indigenous Peoples’ lands, and 32% of Indigenous Peoples’ lands that lie within forested zones of the world. Lands in the forest zone that are not mapped as Indigenous lands (‘other lands’) include a much lower proportion of IFLs (6.8% compared to 32%).

In 36 countries (59% of countries with IFL and both Indigenous Peoples’ lands and other lands), the proportion of IFL to forest area was greater on Indigenous Peoples’ lands than on other lands, highlighting the important contribution of Indigenous Peoples’ lands also at a country level. Indeed, for many countries Indigenous Peoples’ lands tended to have a higher proportion of the countries’ IFL than their proportion of the forest zone, in contrast to other lands.

IFLs form discrete units. Of the 2098 IFL units mapped in 2016, 1277 (61%) overlapped Indigenous Peoples’ land, including 418 (20%) where the entire IFL unit was located on Indigenous Peoples’ land. Hence a high proportion of the world’s IFLs are at least partly managed by Indigenous Peoples.

³ 2016 data available for download at <http://intactforests.org/news.html>

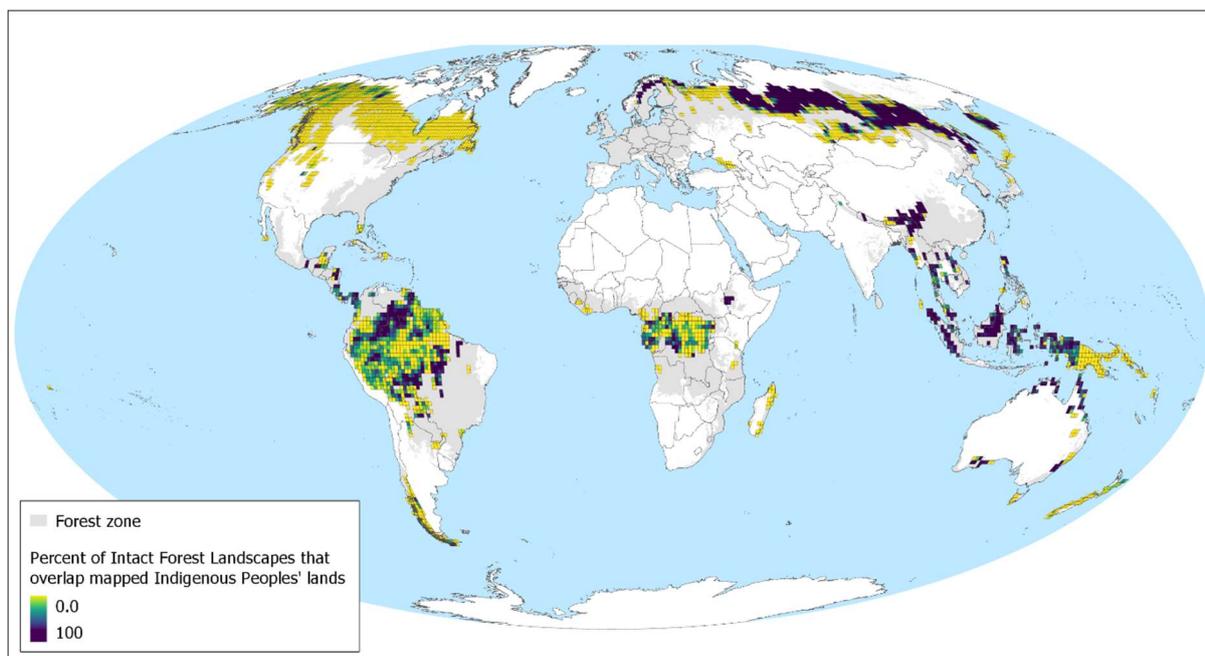


Figure 1 Overlaps between Intact Forest Landscapes and Indigenous Peoples' lands

Note: The resolution is deliberately imprecise as boundaries between Indigenous and other lands are often contentious.

The total loss of IFLs since 2000 has apparently been slightly smaller on Indigenous Peoples' lands (8.2%) than on other lands (10.0%) but this rate of loss is still dangerously high. In 30 countries (61% of countries with IFL and both Indigenous Peoples' lands and other lands), the percent IFL reduction was greater on other land than on Indigenous Peoples' lands.

Conclusions and policy implications

We have found that Indigenous Peoples manage, and in many cases own, a substantial proportion of the world's intact forests. The findings are consistent with a growing body of evidence that demonstrates the significant contribution that Indigenous Peoples are already making in protecting forests of all kinds, and for the first time quantify the extent of this relationship in the most intact forests worldwide.

Preventing the degradation and clearance of intact forests is an essential component of global efforts to combat climate change. However, pressures on IFLs are mounting quickly. While the losses since 2000 on Indigenous lands appear to have been slightly less, the world's remaining IFLs are by no means secure. Often the loss of IFLs has not been with the consent of the Indigenous Peoples themselves.

There are two broad implications of these results:

- One is that any successful strategy to save the largest, most intact forests from degradation and clearance need to be strengthened by establishing and maintaining equitable partnerships with Indigenous Peoples across multiple scales in almost all regions.
- The other is that measures to protect intact forests need to ensure greater respect and policy support towards Indigenous Peoples, including their knowledge systems, practices, and institutions, because such areas are so crucial to their cultural, spiritual and material well-being.

In this context it is concerning that only 21 of 131 tropical countries have commitments to expand Indigenous and local communities' land tenure rights in their commitments under the Paris Agreement (RRI 2016). It is essential that more Parties take effective measures to strengthen and implement commitments to give legal recognition and protection to Indigenous lands. Many other stakeholders should also provide resources to recognize, support or partner with Indigenous Peoples working to protect intact forests.

The special values of intact forests themselves are also barely addressed in most global policy frameworks, and we recommend that policy-makers take greater steps to recognize these values. One notable recent advance is the decision by IUCN (the World Conservation Union), to develop a policy on the protection of primary forests and intact forest landscapes⁴, which it is hoped will lead other institutions to follow suit.

Acknowledgements

Support for creating the Indigenous Peoples' lands dataset is acknowledged in Garnett *et al.* (2018).

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⁴ See IUCN webpage at <https://tinyurl.com/ya5csazo>

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Annex 1 Detailed methods

Geospatial analyses were conducted in the Mollweide projection using ArcGIS Pro v2.2.1. To assess the overlap between Intact Forest Landscapes and Indigenous Peoples' lands we used five spatial datasets: (1) Intact Forest Landscapes; (2) forest zone regions; (3) biomes and biogeographic realms; (4) geographical extent of Indigenous Peoples' lands; and (5) administrative areas. We intersected these datasets to calculate the area of Intact Forest Landscapes, Indigenous Peoples' lands, forest zone, biomes and biogeographic realms. Contrasts between Indigenous Lands and 'other lands' were not subject to statistical testing so the differences described here should not be interpreted as being statistically significant. Data sources were as follows:

Intact Forest Landscapes. Geospatial data for IFL were sourced via <http://www.intactforests.org/> for the years 2000, 2013 and 2016 (IFL_2000.shp, IFL_2013.shp, and IFL_2016.shp). This is the best currently available map of the global distribution of intact forests (that is, large areas free from significant anthropogenic degradation, including fragmentation) though it excludes any areas smaller than 500 km² and only considers forms of degradation visible on recent medium resolution satellite imagery.

Forest zone regions. Geospatial data (forest_zone.shp) delineating the present-day extent of forest landscapes, referred to as the forest zone (Potapov et al. 2017), were sourced via <http://www.intactforests.org/>. Ten geographic regions are identified in the forest zone data.

Biomes and biogeographic realms. We used the Terrestrial Ecoregions of the World (Olsen et al. 2001) classification of biomes and biogeographic realms. Geospatial data for TEOW were sourced via <https://www.worldwildlife.org/publications/terrestrial-ecoregions-of-the-world>.

Indigenous Peoples' lands. We used the geospatial data on the extent of Indigenous Peoples' land reported by Garnett et al. (2018). The data represent terrestrial lands owned and/or managed by Indigenous Peoples throughout the world.

Administrative areas. Geospatial data for the world's administrative areas were sourced from the Global Administrative Areas (GADM) spatial database 2015 <http://gadm.org/version2>. No areas were consolidated for the analyses (e.g. Åland was not merged with Finland; Christmas, Norfolk and Cocos Keeling Islands were not merged with Australia).