Intact Forest Landscapes (IFL)

DEFINITION

Unbroken expanses of natural ecosystems within the zone of current forest extent, showing no signs of significant human activity and large enough that all native biodiversity, including viable populations of wide-ranging species, could be maintained.

DESCRIPTION

An Intact Forest Landscape (IFL) is an unbroken expanse of natural ecosystems within the zone of current forest extent, showing no signs of significant human activity and large enough that all native biodiversity, including viable populations of wide-ranging species, could be maintained. Although all IFLs are within the forest zone, some may contain extensive naturally tree-less areas, including grasslands, wetlands, lakes, alpine areas, and ice. [1] This definition builds on the definition of Frontier Forests which are the remaining large, ecologically intact natural forest ecosystems, as identified through an assessment carried out by the World Resources Institute (WRI) in 1997. [2] As with Frontier Forests, the definition of IFLs captures several fundamental ecological characteristics of forest ecosystems: stability, biodiversity, and resistance to natural disturbances. The IFL definition was developed for two additional important objectives: [3]

- To create a standard methodology to analyse the disturbance to forest ecosystems caused by the fragmentation of these areas;
- To produce a globally consistent map of remaining intact areas to help target conservation work.

SUPPORTED BY

Greenpeace, in partnership with a network of organisations and academic departments initiated by the World Resources Institute (WRI).

YEAR OF CREATION

2005

COVERAGE

IFLs are estimated to cover 23.5% of today's global forest extent. Of the total IFLs, 35% are in Latin America, 28% in North America, 19% in Northern Asia, 8% in Africa, 7% in South Asia Pacific and less than 3% in Europe. [1] Despite the global coverage of IFLs, intact forests are largely present in a few ecosystems. Two biomes, with two distinct types of forest vegetation, hold almost all of the IFLs: dense tropical and subtropical forests (45%) and boreal forests (44%). Furthermore, IFLs are unevenly distributed across countries. While IFLs are present in 66 countries, 3 countries – Canada, Brazil and Russia – contain 64% of the total IFLs. [1]

A number of IFL regional maps have been produced between 2001-2006. [4] A global map was created in 2005-2006, under the leadership of Greenpeace and using publicly available satellite imagery. [4]

CRITERIA

IFL areas are identified by criteria that are globally applicable and easily replicable, allowing for repeated assessments over time as well as verification by independent assessments. These criteria are separated into two groups, which are applied in sequence. [3]

1. Extent of developed area:

Areas with evidence of certain types of human influence are considered disturbed and consequently not eligible for inclusion in an IFL. Such evidence include:

- Settlements (including a buffer zone of 1 km);
- Infrastructure used for transportation between settlements or for industrial development of natural resources. This includes roads (except unpaved trails), railways, navigable waterways (including seashore), pipelines, and power transmission lines (including in all cases a buffer zone of 1 km on either side);
- Agriculture and forest plantations;
- Industrial activities during the last 30–70 years, such as logging, mining, oil and gas exploration and extraction, peat extraction;
- Areas affected by stand-replacing wildfires during the last 30–70 years if located in the vicinity of infrastructure or developed areas.

Areas with evidence of low-intensity and old disturbances are treated as subject to 'background' influence and are eligible for inclusion in an IFL. Sources of background influence include local shifting cultivation activities, diffuse grazing by domestic animals, low-intensity selective logging, and hunting.

2. Fragmentation:

The areas that remain eligible for inclusion in an IFL are then assessed for fragmentation. An IFL must satisfy the following criteria:

- Larger than 50,000 ha;
- At least 10 km wide at the broadest place (measured as a diameter of the largest circle that can be fitted inside the patch);
- At least 2 km wide in narrow parts connecting wider patches and in appendages.

MANAGEMENT

Most IFLs are remote and difficult to exploit, which is typically the reason why they are still intact. IFL maps are a tool promoted by WRI [1] and Greenpeace [5] to develop strategies for nature conservation by retaining their intactness and protecting them from threats such as conversion to agricultural lands and infrastructure development. They can furthermore assist in future evaluation of forest fragmentation by providing a baseline forest extent.

BUSINESS RELEVANCE

Legal and compliance – Overall, less than 19% of the world's IFL area has some form of protection. [1] The identification of IFLs is based on a scientific process, which does not typically require the involvement of national governments. However over the years, the concept has gained the attention of companies and certification agencies. Several companies have committed not to use wood from IFLs unless intactness values are preserved, e.g., IKEA and Lowe's, or to invest only in companies that maintain such values, e.g., Bank of America. These companies use regional maps produced through the IFL approach to implement these policies and avoid sourcing wood from intact forests. IFLs are directly mentioned among High Conservation Value Forests in the Forest Stewardship Council (FSC) standards for Sustainable Forest Management and Controlled Wood. [6]

Biodiversity importance – IFLs have been largely unmodified by human activities, however this does not necessarily make them areas high in biodiversity. This differs depending on the nature of their ecosystems, as well as on whether other drivers of biodiversity loss are present which do not have a direct impact on the forest extent (e.g. poaching or overhunting). IFL is a regional-scale approach, suitable for regional and global scale projects. For use in local scale conservation planning and decision making, its globally consistent criteria should be complemented with local criteria.

Socio-cultural values – While there is typically a lack of major human presence and intervention in IFLs forest-dwelling or remote indigenous peoples may be present in some cases, therefore there may be certain socio-cultural values associated with any indigenous inhabitants. IFLs may overlap with territories that are under legal or customary rights to indigenous communities.

REFERENCES & WEBSITE

1. Intact Forest Landscapes website
2. Bryant, D., Nielsen, D. & Tangley, L. The Last Frontier forests: Ecosystems and Economies on the Edge. (1997)
3. Potapov, P. V. et al. Mapping the World's Intact Forest Landscapes by Remote Sensing. Ecol. Soc. 13 (2008).
4. Greenpeace. Roadmap to Recovery: The world's last intact forest landscapes The world's last intact forest landscapes. 1–35 (2006).
5. Greenpeace International. Our disappearing forests. (2007).
6. Forest Stewardship Council. FSC-US Forest Management Standard (v1.0). 1–109 (2010).



Aerial view of the Cononaco River, Ecuador, in the Amazonian IFL. Dr Morley Read/Shutterstock.com

Category:

Biodiversity designations

Related pages

Last of the Wild (Areas)

Tools

Global Forest Watch is an online forest monitoring system, features global maps of IFLs as a feature of its analytical tools

Links

Intact Forest Landscapes website

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