

HOW MANY FOOTBALL PITCHES ARE LOST EVERY MINUTE?

Anybody who is looking to confirm the number of football pitches deforested every minute will be surprised of the choice of numbers they are offered. The [WWF estimates that 27 football fields of forest are lost every minute due to deforestation](#). Bloomberg writes in August 2022, that the [world loses 10 football fields of tropical forest every minute](#). The BBC reports in 2019, that in the Brazilian Amazon [a football field of forest is lost every minute](#). The Independent reported in the same year that [“enough rainforest to fill 30 football pitches \[was\] destroyed every minute last year”](#). It is not surprising that the flurry of different numbers and reference points leads to some confusion. Let us try to shed some light on these numbers.

HOW MANY FOOTBALL FIELDS OF FORESTS ARE LOST PER MINUTE?

Football for Forests uses the numbers from the [2022 Forest Declaration Assessment](#). According to that report, 2021 saw global deforestation (i.e., permanent loss of forests) of 17 football pitches per minute, and 9 pitches of primary tropical forests lost per minute during that same year. These numbers draw on annual Global Forest Watch (GFW) data published in 2022. In June 2023, GFW reported that, in 2022, [11 football pitches](#) of primary tropical forest were lost every minute, and that 10% more primary tropical forests were lost in 2022 than in 2021.

WHERE DO THESE NUMBERS COME FROM AND HOW THEY DIFFER?

REFERENCE YEAR AND REGION

The numbers depend on the reference period that they refer to, with different numbers differing across time and at times being

revisited and corrected retrospectively. Some data refer global deforestation and others to a particular region (the Congo Basin, Southeast Asia, the Amazon region, the tropics) or country.

SOURCES: GFW AND FAO

Most references draw on data from **Global Forest Watch (GFW)**, an open-source web application to monitor global forests in near real-time. GFW is an initiative of the World Resources Institute, with partners including Google, USAID, the University of Maryland, Esri, Vizzuality and many other academic, non-profit, public, and private organizations. GFW updates its website annually and allows to retrieve deforestation statistics at country level or in user-defined areas. In addition, GFW publishes annual reports which report the tree cover lost in the previous reporting period. GFW primarily focuses on loss in the tropics because that is where [more than 96%](#) of deforestation, or human-caused, permanent removal of forest cover occurs.

The **UN Food and Agriculture Organization (FAO)** also publishes data on deforestation through the FAO Forest Resources Assessment (FRA) based on self-reported data by governments. The latest assessment, [FRA 2020](#), examined the status and trends of forest resources from 1990 to 2020. It reported that an estimated 5.5 million football pitches of forest have been lost worldwide through deforestation since 1990. The next estimates are expected for 2025, as the FRA is produced every five years.

Both GFW and FAO-FRA dataset have global coverage. A key difference between the deforestation data presented by the GFW and the FAO-FRA is the methodology under which the data is produced. The GFW adopts consistent definitions and methodologies across all countries and territories. The data presented by FAO-FRA, on the other hand,

are provided by countries that have the right to adopt definitions and methodologies tailored to the respective national contexts. Thus, fundamental questions such as 'what is a forest?' or 'what is deforestation?' may find different answers across countries and territories. Overall, both GFW and the FRA conducted by FAO are important tools for understanding the state of global forests, monitoring changes, and guiding sustainable forest management practices.

The Forest Declaration Assessment is a continual and collaborative process achieved collectively by civil society organizations and researchers, known as the Forest Declaration Assessment Partners. Previously the NYDF Progress Assessment, the Forest Declaration Assessment has since 2015 published annual updates on progress toward global forest goals. While assessing the progress towards deforestation goals, the Assessment leverages data provided by GFW and collaborates closely with their researchers to draw solid conclusions on deforestation trends. All Assessment findings undergo a rigorous peer review process conducted by experts across the globe.

PRIMARY AND SECONDARY FORESTS VS TREE COVER

Another relevant distinguishing factor is the quality of the forest that is lost due to deforestation. Tropical primary forest refers to old-grown forests made of native species which has no history of recent clearing. There is no global definition of primary forests, and

countries define primary forests differently when they report their forest cover to FAO. Secondary forest is forest which has regrown on land that has recently been cleared. Restored forests are secondary forests until they have reached the status of old-grown forests which can take decades to centuries. While 11 football pitches of tropical primary forests were lost in 2022 per minute, 28 pitches of tree cover were lost per minute in the tropics during the same year.

TREE COVER LOSS VS DEFORESTATION

Not all tree cover lost is counted as deforestation, but all deforestation involves tree cover loss. The Intergovernmental Panel on Climate Change (IPCC) defines deforestation as the permanent conversion of forest land to non-forest land. Deforestation requires a deliberate change in land use, for example from forest to agricultural land or settlements. Tree cover loss refers more broadly to the loss of tree cover, which includes forest lost due to fires, storm, or disease. In all these cases it is assumed that the forest will grow back and no land use change will happen. A contested case is shifting agriculture, which in most cases does not result in a permanent land use change. However, shifting agriculture impacts primary tropical forests because, once cleared and regrowth, they will need decades to centuries to recover the conditions of a primary forest. Given this characteristic, shifting agriculture can cause the loss of primary forests.

