Annex

Authorized deforestation in the Amazon and Cerrado[1]

Introduction

The “deforestation permit” (“Autorização de Supressão de Vegetação – ASV” or “Autorização para Uso Alternativo do Solo – UAS”, in Portuguese) is the legal document that regulates native vegetation suppression procedures in public or social purposes, as defined by Normative Instruction (IN) No. 6/2009 of the Brazilian Institute for the Environment and Renewable Natural Resources (IBAMA, in Portuguese).

The permitting process involves meeting minimum requirements and may be accompanied by the adoption of forest replacement or compensation measures. For example, in the case of rural properties, they must be registered in the Rural Environmental Registry (CAR) (Article 26 of the Forest Code). Furthermore, when the area to be cleared harbors threatened or migratory species of fauna or flora, compensatory and mitigation measures must be implemented to ensure their conservation (Article 27), among other criteria established by Brazilian legislation.

The National System for Controlling the Origin of Forest Products (Sinaflor) was established by IN 21/2014. In Sinaflor, the request for an ASV/UAS is made by both the entrepreneur/farmer and technical manager, who must fill in all the technical information in the system to subsidize the analysis and respective approval by the Environmental Agency.

Sinaflor should keep all the ASV/UAS issued in the country. However, there has been a difference between the ASV/UAS information issued by state agencies and what is presented in the Sinaflor database. In other words, there is a failure to integrate the federal system with other state systems. Therefore, analyses of the deforestation permits in Brazil must include data from Sinaflor and the databases provided by the state environmental agencies.

Recently, the National Environment Council (CONAMA), through Resolution No. 510/2025, established technical criteria, validity conditions, active transparency requirements, and guidelines for the integration and disclosure of data and information related to the issuance of ASV in rural properties, as well as the responsibilities of the competent environmental agencies.

Here we describe the methodology for analyzing the deforestation detected by the PRODES monitoring system of the National Institute for Space Research (INPE) in the Amazon and Cerrado biomes, for the period from August 2025 to July 2026.

[1] Instituto Centro de Vida (ICV). **Permitted deforestation in the Amazon and Cerrado**. Cuiabá: ICV, 2025.

Methodology

Access to databases

The states covered by the Amazon and Cerrado biomes are: Acre (AC), Amazonas (AM), Pará (PA), Roraima (RR), Rondônia (RO), Mato Grosso (MT), Maranhão (MA), Tocantins (TO), Piauí (PI), Bahia (BA), Minas Gerais (MG), Goiás (GO), Mato Grosso do Sul (MS), São Paulo (SP), Paraná (PR) and the Distrito Federal (DF).

State information was obtained for 7 of these states (BA, GO, MG, MS, MT, PI e RR) (Table 1). For the others (AC, AM, DF, MA, PA, RJ, RO, SC e TO), only information from the Sinaflor database was considered. The databases were accessed in August 2026 (Table 1).

For the ASV/UAS databases from Sinaflor, the data were extracted from the Geospatial Analysis and Environmental Information Monitoring Platform (PAMGIA) of IBAMA (Table 2).

The databases related to deforestation detected in the Amazon and Cerrado biomes were obtained from PRODES Legal Amazon and PRODES Cerrado, available on the TerraBrasilis Portal (Table 3) of the National Institute for Space Research (INPE).

Table 1. State databases of deforestation permits.

State	Date	Source
BA	04/08/2026	http://geobahia.inema.ba.gov.br/
GO	05/08/2026	https://siga.meioambiente.go.gov.br/
MG	05/08/2026	https://idesisema.meioambiente.mg.gov.br/webgis
MS	05/08/2026	https://portal-transparencia.imasul.ms.gov.br/data
MT	05/08/2026	https://geoportal.sema.mt.gov.br/#/
PI	05/08/2026	https://www.semar.pi.gov.br/servicos
RR	05/08/2026	https://siggarr.femarh.rr.gov.br/

Table 2. Sinaflor databases of deforestation permits.

Database	Date	Source
PAMGIA – Autorizações de Exploração Florestal Integrado	04/08/2026	https://pamgia.ibama.gov.br/geoservicos/

Table 3. Databases for monitoring deforestation in the Amazon and Cerrado.

Database	Date	Source
PRODES Amazônia Legal	16/10/2026	https://terrabrasilis.dpi.inpe.br/downloads
PRODES Cerrado	16/10/2026	https://terrabrasilis.dpi.inpe.br/downloads

Database processing and analysis

In this stage, the data were standardized to the coordinate system with the Albers Equal Area Conic projection and the SIRGAS 2000 datum. Spatial processing and analyses were carried out using ArcGIS Pro 3.3.1 software.

Next, the geometries of the deforestation permit datasets were checked and corrected to eliminate inconsistencies that could compromise processing in subsequent steps. In the permits database, polygons that did not reflect the actual data—such as unrealistically large polygons—were removed.

The “Spatial Join” tool was used to spatially assign municipality, state, and biome information to each polygon in the deforestation permit dataset. In this procedure, the rule “have their center in” was applied so that each permit carries the geographic information corresponding to the location of its centroid. The datasets for municipalities, states, and biomes were obtained from IBGE (2019).

To perform the spatial intersection between the deforestation permit datasets and the PRODES deforestation database, the “Intersect” tool was used. For the resulting layer, the “Dissolve” tool was applied according to the unique identifier of each deforestation polygon, to obtain the overlapping area between each deforestation polygon and the permits.

Deforestation polygons were considered authorized deforestation when at least 10% of their area overlapped with one or more permits. No date filters were applied to the deforestation permit database.

Finally, it was possible to identify deforested areas that overlapped with deforestation permit issued and made available by state and federal governments.