

Why legality is important in fighting deforestation in the Amazon

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Ongoing deforestation in tropical regions has given rise to numerous commitments in countries of both the Global North and Global South: The New York Declaration on Forests, the Brazilian Soy Moratorium, the European Union Deforestation Regulation, zero-deforestation agreements in Colombia, etc. Implementing those commitments faces many obstacles and the difference between illegal deforestation and legal deforestation, i.e. that authorized by the regulatory framework of each country, is often glossed over in national or international deforestation monitoring systems. These two observations are in fact linked. It is essential to distinguish between legal and illegal deforestation so that commitments effectively result in a sustained reduction of all types of deforestation in tropical regions. In the Amazon, that distinction requires the coordination of information from institutions on different levels.

WHAT'S AT STAKE

CONTINUING DEFORESTATION AND ITS MANY CHALLENGES IN THE AMAZON

Despite some major progress in certain forest territories, continuing deforestation remains a major source of global greenhouse gas emissions and biodiversity loss (Friedlingstein et al. 2023). Tropical forests account for 45% of the world's forest area. The Amazon Forest, spanning nine countries, is the largest tropical forest in the world (FAO 2022). In 2018, the Amazon had lost around 870,000 km² of primary forest, or 14% of its original forest cover (Berenguer et al., 2021). Continuing deforestation in this biome is accelerating climate change and threatening the lives of humans and other species that depend on the forests (Gatti et al. 2021).

MULTIPLE "ZERO-DEFORESTATION" COMMITMENTS

While the fight against deforestation is nothing new, private and public sector commitments to "zero-deforestation" have been multiplying on different levels over the past fifteen years or so. For example, in Brazil, stakeholders in the soy industry introduced a moratorium over several years on soybeans sourced from land in the Amazon deforested, legally or illegally, after 2008, which was temporarily put on hold in 2025 by the public organization in charge of regulating competition. More recently, the European Union Deforestation Regulation (EUDR) requires that certain agricultural and forestry goods marketed in the EU must not originate from land deforested either legally or illegally after 31 December 2020 and must have been produced in compliance with the relevant legislation in the country of production. The United Kingdom has adopted the Forest Risk Commodity Regulation (FRC), which aims to ban imports of products derived from illegal deforestation.

Thus, the commonly used term "zero-deforestation" can target two different things: eliminating deforestation solely where it is banned by law (e.g. FRC) or prohibiting it even when it is authorized (e.g. Brazilian Soy Moratorium, Colombian zero-deforestation agreements, EUDR). In theory, this distinction determines the specific policy instruments to be applied in

each case (Gregersen et al., 2010). Without such a distinction, it becomes difficult to pass from theory to fact and adapt instruments to the objectives sought.

Implementing these commitments therefore calls for a better assessment of legal and illegal deforestation in tropical countries, which is what deforestation monitoring systems most often overlook. Defining what is legal and what is illegal raises important questions, relating to national sovereignty, but also to the powers of subnational jurisdictions in decentralized institutional frameworks.

KEY MESSAGES

- ▶ The deforestation monitoring and alert systems in tropical regions do not differentiate between legal and illegal deforestation, yet this is essential for effectively implementing zero-deforestation commitments.
- ▶ In Colombia, such differentiation means involving local municipal governments in order to take their land use plans into account.
- ▶ A nationwide analytical framework is proposed for the transparent delineation of areas where deforestation is legal and areas where it is not.
- ▶ The analytical framework, illustrated by the case of the Guaviare department, enables better targeting of support that is crucial for strengthening the impacts of zero-deforestation commitments.
- ▶ It also allows for discussions on the relevance of the budgetary framework for forest protection in the Colombian Amazon, which could be redesigned to take into account the forest area under either effective protection or sustainable management measures in each territory.

Advances enabled by the TerrAmaz project

THE MERITS OF TERRITORIAL APPROACHES

The [TerrAmaz project](#) (2021-2025) – a support programme for the Amazon territories, funded by Agence française de Développement and coordinated by CIRAD – will come to an end in 2025. It has helped to identify how, and under what conditions, territorial approaches promoted by subnational governments in the Amazon can support a sustainable transition to zero-deforestation in their territory. The results include in-depth work shedding light on the issues involved and the degree of distinction made between legal and illegal deforestation [Katz-Asprilla et al. 2024]. Beyond the Brazilian case, we discovered that the academic work and databases on deforestation dynamics in the Amazon have never properly made a distinction between legal and illegal deforestation. Taking the case of Guaviare, in the northern Colombian Amazon, a deforestation hotspot where a commitment has been made since 2018 to put a stop to it, we highlighted the reasons why such a distinction is necessary and we explored ways of making it operational. A department seems the most relevant choice for taking into account the entire Colombian regulatory framework defining the legality or illegality of deforestation.

A REGULATORY FRAMEWORK THAT REQUIRES CONSIDERATION OF THE LAND USE PLANS IN EACH MUNICIPALITY

We reviewed the entire Colombian regulatory framework (some thirty laws, decrees and resolutions), enabling us to identify the areas where deforestation is legal and those where it is illegal. We were thus able to propose an analytical framework applicable to the country as a whole (Figure 1). Within this framework, we grouped under the heading “environmental units” all the areas delimited by the regulatory framework that incorporated an environmental protection function: forest reserves, natural protection areas, integrated management districts, civil society nature reserves. The analytical framework revealed that while many areas are governed by the national regulatory framework, such as areas where deforestation is totally illegal, the municipalities (Municipes) also have the power to define authorized land uses in certain areas and thereby allow or prohibit deforestation. These areas are defined in each municipality’s land use plans, which have been compulsory since 2000 [Presidencia de la República de Colombia 2000:1]. Colombia comprises 32 departments and 1,123 municipalities.

In the Amazon region, the departments are divided into a small number of municipalities, each extending over a wide area: four, for example, in the department of Guaviare (5,346,000 ha). On a national scale, inventorying the land use plans of each municipality is a major task and requires the departmental and municipal authorities to work together. Lastly, in the zones where deforestation is allowed, a permit must be acquired from the regional environmental authority. In practice, as in many countries, such permits are rarely applied for and are not easily accessible. We therefore limited our analysis by disregarding this issue of authorization and considered deforestation to be illegal if it took place in an area where the zoning established by the national, regional or municipal public authorities prohibits deforestation.

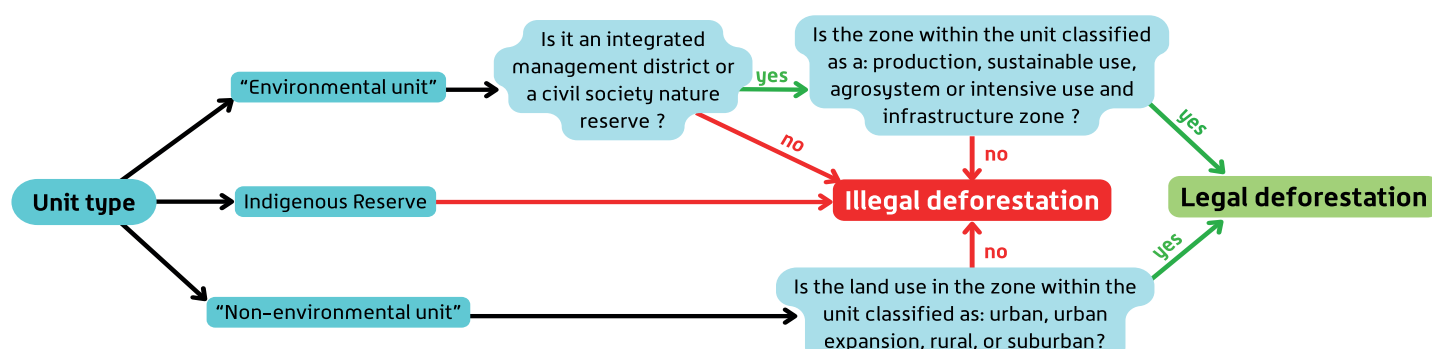
DEFORESTATION HAS MOSTLY BEEN ILLEGAL SINCE 2012

We superimposed tropical forest deforestation [data from the EC-JRC](#) with the boundaries of legal and illegal deforestation areas in the department of Guaviare. We were thus able to see the extent of legal and illegal deforestation in the department over the 2000 to 2020 period. We show that while legal deforestation has tended to decline since 2013, illegal deforestation has continued to increase. Over the period, it accounted for an average 75% of annual deforestation in the department. Some of that increase in illegal deforestation is linked to zoning undertaken in 2015 by the regional environmental authority, which reduced the share of deforestation authorized by the law in one of the department’s environmental units. That zoning led to new areas being defined where forest maintenance became compulsory for the preservation or restoration of several ecosystem services.

In terms of explanation, like the other departments of the Colombian Amazon, Guaviare first experienced a period of colonization driven by the State, then a long period of armed conflict during which the State was partially absent from certain areas. In 2016, the Peace Agreement was signed, marking a gradual return of the State. That return to the affairs of the territory remains partial, due to the persistence in the department of armed groups that have not signed any peace agreement. In this context, legality is not always seen locally as legitimate, just as there may be a perception of legitimacy for actors who once operated illegally in the past [Ciro Rodríguez 2020].

Lastly, our assessment showed that the forests remaining in 2020 covered 85% of the total area of the department, totalling 4.7 million hectares, with virtually all that area located in zones where deforestation is banned.

Figure 1. Flowchart to determine the legality and illegality of deforestation in Colombia



RECOMMENDATIONS

DIFFERENTIATE BETWEEN LEGAL AND ILLEGAL DEFORESTATION IN DEFORESTATION MONITORING SYSTEMS

Some zero-deforestation commitments omit the issue of deforestation legality by prohibiting any type of deforestation after a certain deadline. However, deforestation occurring before that deadline can have an impact on the legality of current properties. The fact that properties no longer deforest after a certain date may guarantee them access to certain markets, though they had not complied with national environmental legislation for many years. Completely ignoring the illegality of past deforestation can be seen as a socio-environmental injustice by rewarding less virtuous occupants. Neither does this facilitate the application and compliance with environmental laws. For example, in the Brazilian Amazon, the Brazilian Forest Code requires that a certain share of each property be preserved as forest. The Soy Moratorium merely controlled the absence of soy planted in areas deforested after 2008. All properties deforested before 2008 beyond what is allowed by the Brazilian Forest Code were not negatively impacted by the moratorium. They could continue to sell their production without restriction, irrespective of the seriousness of their violation.

Distinguishing between legal and illegal deforestation in monitoring systems is also essential for developing transitional solutions enabling the inclusion of the largest number of properties in a drive that promotes the preservation or expansion of forest cover. As illustrated by the case of Guaviare, deforestation has long been illegal for different contextual reasons. For example, with the introduction of the EUDR, properties must be able to demonstrate that they respect the relevant legislation in the country of production. If all the producers in the Amazon operating illegally because of their past deforestation have no prospect of eventually accessing the “zero-deforestation” markets, or the various incentives aimed at zero deforestation, they risk turning to less demanding markets. Future deforestation in the region would thus be only slightly slowed down, continuing the relentless trend of past deforestation. Solutions therefore need to be found that include certain properties currently operating illegally, thereby strengthening the impacts of zero-deforestation commitments.

DEVELOP TRANSITIONAL AND INCLUSIVE “LEGAL” SOLUTIONS

Transitional solutions need to be developed with the territorial authorities and acknowledged within the national legislative framework. For example, in Guaviare small livestock farms that still have forests can benefit from support for sustainable conversion, even when they are located in an area where deforestation is illegal. In exchange, they have to sign a long-term conservation agreement for the remaining forest areas on the property and implement a land use plan that includes some form of restoring degraded land and forest. In addition, to prevent forest areas from being lost by granting land titles on wooded areas of the forest zone, a system of peasant forest concessions or green titles is currently being considered. These alternatives would offer regularization prospects for those currently operating illegally given their past deforestation, opening up access to certain “zero-deforestation” markets. They rely on the involvement of territorial institutions, which are capable of contextualizing situations case-by-case and monitoring compliance with the negotiated agreements.

REVIEW THE RULES FOR ALLOCATING PUBLIC FUNDS FOR MONITORING AND CONTROLLING DEFORESTATION

The detailed assessment of legal and illegal deforestation areas in the department of Guaviare also reveals a situation found in many Amazon territories: large areas of forest need to be conserved compared to the area that can be legally deforested. For example, in the department of Guaviare, only 5% of the department's area can be legally deforested (Katz-Asprilla et al. 2024). Fiscal income for the territorial authorities from taxes on local rural properties is therefore bound to remain limited, especially since the properties are not legalized. The local authorities therefore sorely lack the financial resources needed to contribute significantly to ensuring compliance with the legal framework. This is worsened by the fact that national budgetary transfers to the institutions responsible for environmental monitoring and control are not proportional to the size of the forest area to be managed: they depend on the size of the population in the department. It is a budgetary framework that does not facilitate the involvement of departments and municipalities in controlling deforestation. A reform of this framework seems necessary. Several countries have already started redistributing certain tax revenues to territories that take into account ecological indicators, such as the extent of the forest areas to be conserved (Bush et al., 2021, Comini et al., 2019) and can provide some leads for this reform.

BRIEF RECOMMENDATIONS

- Tropical deforestation monitoring systems must distinguish between legal and illegal deforestation. In Colombia, this involves analysing the land use plans of 1,123 Colombian municipalities; these plans need to be systematically digitized. The plans exist because they have been compulsory since 2000. Digitizing them and creating a national register would simplify the effective implementation of zero-deforestation commitments, but also the concerted resolution of complex illegal situations locally. In forest territories where the cartographic database is not enough to differentiate between past legal and illegal deforestation, there is an urgent need to support international and national commitments to zero-deforestation by establishing acknowledged maps that enable such a distinction to be made in a transparent manner.
- Strengthening the impacts of zero-forestation commitments in the Amazon means finding transitional and acceptable solutions that include regularizing certain past illegal situations. However, not all types of past illegal operations should be amnestied. These solutions must therefore be established on a case-by-case basis with local institutions, as they depend on contextual aspects that only those institutions can properly assess. They are technical solutions based on productive reconversions that allow better use of open spaces, but also legal solutions to guarantee land tenure security. Some initiatives already exist in several Amazon territories and they need to be analysed, supported and shared to try and include as many stakeholders as possible in a deforestation-free future.
- The financial and monitoring capacities of the territorial institutions responsible for controlling deforestation in Colombia must be strengthened, which means reforming the regulatory framework for funding those institutions. Budget transfers for the protection of forests within Amazon jurisdictions could be indexed according to the forest area that is under effective protection or sustainable management arrangements.

CONCLUSION

Assessing the legality and illegality of deforestation in tropical countries is complicated, especially when forest and land management regulations are shared between different levels of governance. The example of the Colombian Amazon shows that such an assessment is essential for supporting the implementation of zero-deforestation commitments with appropriate measures and thereby guarantee their impact. It also shows that some types of transitional legalisation of certain illegal situations can be implemented with the backing of local institutions to include as many actors as possible in a future without deforestation. The development and application of transparent analytical frameworks can complete such mechanisms by improving communication and consultation between the different stakeholders to develop fair and appropriate solutions

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Projects and partnerships

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The project, funded by the Agence française de développement (AFD), was entrusted to a consortium of three French organizations: CIRAD, AVSF, and ONFi. Activities have been implemented with their networks of local partners in five pilot sites: Paragominas and Cotriguaçu in Brazil, Guaviare in Colombia, the buffer zone of Yasuní Park in Ecuador, and Madre de Dios in Peru.

For more information: www.terramaz.org



References and other links



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