

FACTSHEET - SUGARCANE IN THE AMAZON

What does the Senate bill on sugarcane in the Amazon say?

The PLS 626/2011 establishes that "the planting of sugarcane in altered areas and areas of Cerrado and Campos Gerais biomes located in the Legal Amazon, complied with the provisions of the Brazilian Forest Code, is authorized." An [amendment to the Committee on the Environment](#) has established that the area that can be used for this crop would be "primarily" the degraded areas or pastures so declared by state agencies in 2010.

What does the author say to defend the project?

[According to the author of the bill](#), senator Flexa Ribeiro (PSDB-PA), the "growing demand" for biofuel that followed the adoption of the dual fuel (flex) vehicles generated the need for expansion of ethanol production. Nevertheless, the ecological zoning of sugar cane, established by Decree 6.961/2009, excluded the biomes Amazon and Pantanal and the Alto Paraguaí basin. According to the complaints of the senator, the studies that gave rise to the zoning did not include the states of Amazonas, Amapá, Acre, Pará, Roraima, and Rondônia, "hindering the development of the region." The senator offers two examples: in Pará, a 2006 study cited by him pointed out to a total of 9 million hectares suitable for sugarcane; meanwhile, Roraima "that has an agricultural region favorable for the production of sugarcane, is not allowed to export to Venezuela. The neighboring country will have to buy from others." The neighboring country will have to buy from others."

But is sugarcane already present in the Legal Amazon region?

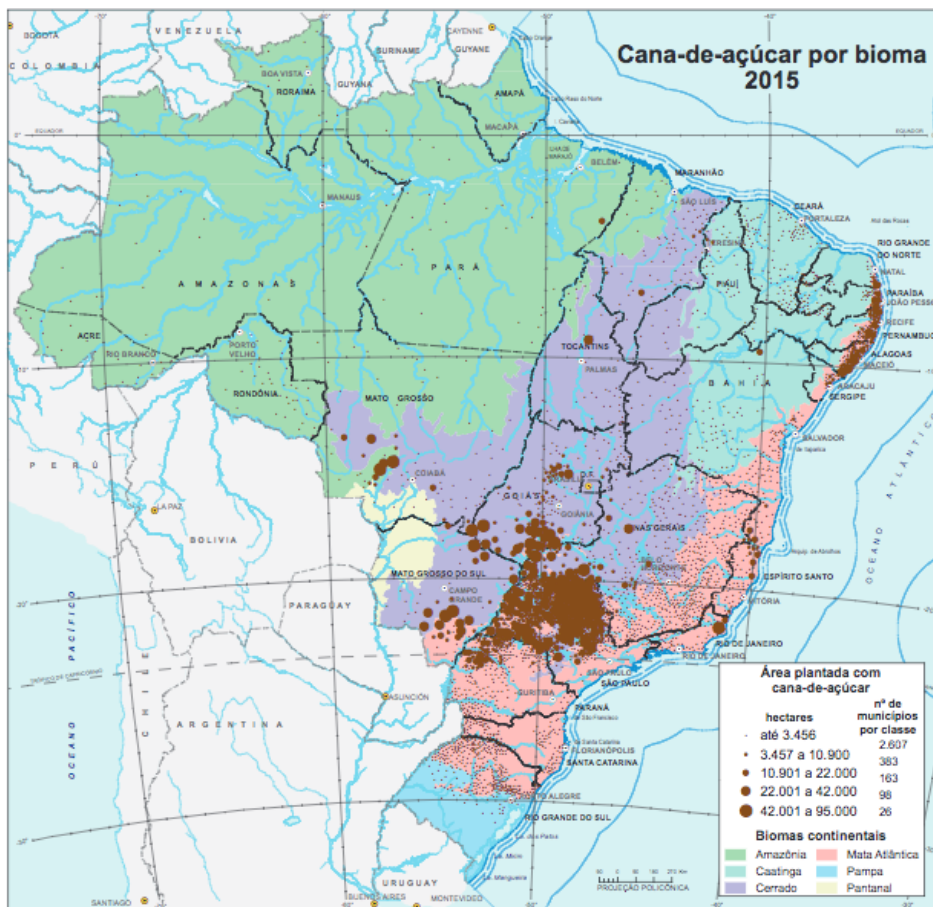
Yes. Three states within Legal Amazon - Mato Grosso, Tocantins, and Maranhão - have significant sugarcane farming areas in Cerrado zones (). In 2015, according to data from Unica (Union of the Sugar Cane Industry) these states had respectively with 300,000, 35,000, and 47,000 hectares of sugarcane farming, respectively. The state of Pará comes next, with 16,000 hectares, followed by the state of Amazonas, with 4,400 hectares.

Does the sugarcane zoning prevent the expansion of farming in Legal Amazon?

No. The current zoning only prevents farming in the Amazon biome, i.e., in the Rainforest and the patches of Cerrado and still preserved fields (unlike the bill's text, there is no biome called "Campos Gerais," or "general fields" in the [classification of biomes by IBGE](#)) that exist in that biome. This can be verified by the fact that the present zoning considers that there are 1.1 million hectares suitable for sugarcane farming in the state of Tocantins; 6.8 million in Mato Grosso; and 790,000 hectares

in Maranhão - they are states within the Legal Amazon States with Cerrado zones and with large areas already deforested, suitable for sugarcane farming. In total there are 8.7 million hectares where sugarcane can expand without converting any Cerrado or natural field on these three states. For comparison, in 2015 Brazil had 10.8 million hectares of sugarcane farming, according to Unica. That is, there is more than enough room to double the total production of Brazil, already authorized in the current zoning, only in these three states of the Legal Amazon.

The map below shows where sugarcane is distributed in the country currently:



Fonte: IBGE, Produção Agrícola Municipal 2015.

Why was the Amazon Biome excluded from the zoning of sugarcane?

The zoning drafted in 2009 considered climatic risk, the vulnerability of land, production potential, and protected areas. Due to the threat of non-tariff barriers to Brazilian ethanol by European countries, threats of imposing non-tariff barriers to Brazilian ethanol, and the risk of deforestation caused by sugarcane farming in the Amazon, the biome was excluded. The same occurred with Pantanal and Alto Paraguai basin, both Cerrado regions with Pantanal rivers sources. The zoning sought to estimate the remaining areas of the country where sugarcane farming

could be expanded without competing with areas of food production and affecting these biomes. The decree was written by Ministry of Agriculture, Livestock, and Supply and the Ministry of the Environment.

Regarding land use restrictions, the [EU legislation](#), for example, requires crops for biofuels not to be grown, after January of 2008, on land with high biodiverse value or with significant carbon stock. Lands with high biodiverse value include forests; areas designated for nature protection purposes; areas for the protection of rare, threatened or endangered ecosystems and species; and highly biodiverse grasslands.

Is there a need to revert the zoning of sugarcane farming to accommodate the production expansion?

No. Sugarcane plantations today spread for 10.8 million hectares in Brazil, according to Unica, the sugarcane industry association. The agroecological zoning [has identified additional 64.7 million hectares](#) amenable to expansion, of which 19.3 million hectares have a high aptitude for the crop. The [projected production of ethanol](#) in Brazil is of 54 billion liters by 2030, to comply with the country's Paris Agreement pledge. Assuming no gain of productivity and a linear relationship between today's total ethanol production (30 billion liters in 2015/2016) and cultivated area, there would be a need for additional 11 million hectares to double production, thus exceeding the Paris target. There is no need for a single hectare of Amazon land for sugarcane farming. This number will be much smaller if you consider the yield gains and current estimative for expansion.

Does the sugarcane zoning "stiffen" development of Amazonian states?

No. Let's consider the case of the state of Roraima, for instance. Senator Flexa Ribeiro claims that there is a need to liberate sugarcane plantations in Roraima because today "it can't export to Venezuela." Leave aside for a moment the fact that in Venezuela, one of the world's biggest oil producers, the average price for a liter of gasoline is [US\\$ 0.01](#). Not the kind of country with a big appetite for biofuel. Even if Venezuela was not bankrupt and thirsty for Brazilian ethanol, how much sugarcane Roraima has been producing, to begin with? Not much: before 2009, when zoning entered into force, Roraima never grew more than 559 hectares of sugarcane. Its maximum harvest area was 566 hectares in 2012, therefore *after* the zoning decree. Whatever the explanation for such poor performance may be, it has likely nothing to do with zoning.

But the bill says nothing about forests. It states that sugarcane can only be grown in "altered" areas and savannas and grasslands. Why would that cause deforestation?

The first, simplest explanation is the knock-off effect on cattle. Cash crops such as sugarcane and soybeans lead to high land prices. Cattle ranchers and land-grabbers may feel encouraged to open more forest areas for “pasture” and sell them for big bucks to sugarcane farmers, and then move on to clear-cut new land. Before establishing [soybean moratorium](#), in 2006, that “leakage” of deforestation was happening in soybean municipalities in different Amazon states such as Mato Grosso and Pará. No similar deal exists for sugarcane.

A brand-new deforestation vector would make law enforcement harder in the Amazon, where [studies have shown compliance with the Forest Code is already very low](#), and most of the deforestation is illegal. Since the bill contains a rather loose definition of “altered areas”, the room for fraud and non-compliance is huge. Additionally, new infrastructure would need to be installed to process and transport the new crop. These are, by themselves, drivers of deforestation.

In a nutshell, the proposed Senate bill created a problem where there is none, for no sound economic reason.

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