

False controversies influence environmental setbacks in Brazil, says study



Pseudoscientific claims have contributed to the weakening of environmental policies since the 1990s in Brazil, reveals a study published this Tuesday (25) by the scientific journal *Biological Conservation*.

“The attack on environmental policies was driven by a systematic and veiled effort by a small group of opponents to misinform decision-makers and society”, says the article, which defines contraries —also called skeptics or denialists— as groups with scientific credentials that seek to influence public opinion and decision-makers to prevent the advancement of regulatory policies.

The research analyzed the strategies of a group led by the agronomist Evaristo de Miranda, a researcher at Embrapa known by the agribusiness and environmentalism sectors for presenting information that diverges from the scientific data on the conservation in the country.

The study analyzed Miranda’s curriculum on the Lattes platform, where the researcher cites the publication of 58 texts as complete scientific articles. Most of them, in however, it consists of essays or technical notes without academic validation. Only 17 of them were published in scientific journals.

Among these, only ten articles are indexed in databases recognized by scientists.

In addition to publication in non-scientific journals and without the requirement of peer review, the study found that good part of the texts does not provide details of methodology and does not make the data available, which prevents the verification of the information and the debate in the scientific environment.

The study identified the impact of false controversies on public policies in four areas: Forest Code; indigenous lands and conservation units; burning of sugarcane in São Paulo and fires.

“Most of the outbreaks registered in July were from fires in low-technical production systems”, stated Miranda in August of the last year, in a text published on the website Revista Oeste.

However, according to Inpe (National Institute for Space Research), in July 2021 only 39% of fires were in areas of use consolidated, while 39% were recorded in areas deforested after 2017.

According to the study, Miranda’s argument was based on federal government decisions that dismantled environmental control and inspection policies.

In an article published in 2008, Miranda argued that the full implementation of the Forest Code would make agricultural production unfeasible in most of the country, for which there would only be 29% of the national territory al.

The argument followed the production of oversized maps, which did not consider the proportionality of the conservation requirements of riparian forests as a function of the different sizes of rivers.

When comparing the maps released by Miranda with hydrographic data and following the rules of the Forest Code of 1965, climatologist Carlos Nobre verified that the numbers overestimated the areas of preservation of riparian forests in 309% .

“The scenario in which the Permanent Preservation Areas cannot be considered part of the Legal Reserve would lead to negative numbers [de

áreas disponíveis para a agricultura] in the Amazon and Pantanal”, defended the agronomist.

The process to amend the Forest Code gained strength in the year following the publication of the article, in 2007, when mentions of the agronomist appear in 2007 Congressional records. On 2012, Congress passed a new version of the law with amnesty to 58% of illegal deforestation carried out until 2008.

“The misinformation presented by Miranda and collaborators played a central role in weakening the Forest Code”, says the research, which analyzed 119 Congressional documents mentioning Miranda’s name.

Most of the mentions expressed support for his statements, coming mostly from parliamentarians from the ruralist bench.

The argument about the lack of land for agriculture was also used by Miranda to contrap or the creation of protected areas. In a text published in 2008, he states that the demands for the demarcation of indigenous lands and the creation of conservation units would exceed the size of the national territory.

As of 2010, actions to create conservation units and demarcate indigenous lands declined and since 2018 they have been paralyzed.

Another target of false controversies, environmental fines have been drastically reduced under the Bolsonaro government under the argument that they would be applied arbitrarily.

“There is a lot of arbitrariness. Fines are levied based on satellite images, flying over helicopters, without listening to the producer, without setting foot on the property to find out if what was fined was authorized”, said Miranda in an interview with Canal Rural, at the end of 2018.

At the time, he had been invited by the president, then recently elected, to support the environmental project of the Bolsonaro government.

“Fines and embargoes supported the drastic reduction in deforestation between 2007 and . **Remote monitoring technology is used, but field**

actions play a central role and are highly effective in reducing deforestation”, counters the study, citing scientific research.

In published articles in 1994 and 1997, Miranda stated that the burning of sugarcane would be positive for the environment and would have no impact on human health.

The text served as a basis for the Justice denied, in the years 119, an action by the Public Prosecutor’s Office that

asked for a ban on the practice.

The state of São Paulo only banned it in , despite the scientific consensus on the health and environmental impacts of burning sugarcane — with evidence such as the increase in hospitalization of children and the elderly and the loss of soil fertility.

“There are other examples of active groups with pseudoscientific information about vaccines, Covid-19 or climate change, but the case of Evaristo de Miranda stands out for its longevity, because it maintained influence over different governments, from FHC, Lula , Dilma to Bolsonaro, with an impact on different areas of environmental policy”, says Professor Raoni Rajão, lead author of the study and coordinator of the Laboratory of Environmental Services Management at UFMG (Federal University of Minas Gerais).

The study also had the participation of 12 researchers from UFMG, USP (University of São Paulo), Inpe, UnB (University of Brasília), UFSC (Federal University of Santa Catarina) and the Autonomous University of Barcelona (Spain).

The article also points out Miranda’s influence on presidential speeches. When addressing the UN General Assembly in 2017, President Jair Bolsonaro used data from the author. At that time, Itamaraty guidelines sent to diplomats abroad also followed Miranda’s data.

Last August, the Brazilian Embassy in Washington re-distributed an article by the author that denied the occurrence, in the previous month, of forest fires in the Amazon.

“By deeming them unworthy of attention, the scientific community allowed false scientific claims to remain unchallenged. The academy is also blamed for the long and growing ability of false scientific controversies to influence policy”, states the article, which recommends opening space in scientific journals to “define and discuss false scientific controversies rigorously”.

Embrapa Territorial told Folha that it will not comment on the matter. Wanted, Evaristo de Miranda did not return to the contacts of the report.