



## The COVID-19 pandemic and future of ethnobiology

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The COVID-19 pandemic has highlighted situations that prompt consideration in ethnobiological research, thereby contributing to the advancement of this field. One situation is that the global market has collapsed. The latest report by the International Monetary Fund (IMF) indicates a 3% drop in the global economy and states that the current crisis will be the biggest recession since the Great Depression of 1929 (IMF 2020). In relation to protection measures, the same IMF report indicates that countries should start planning “recovery actions”, based on the discourse that it is necessary to “save the economy, jobs, and the well-being of humanity”. Considering the specificities of different markets, this “economic recovery” will demand the advance to capital over nature. Consequently, indigenous, quilombolas (maroon communities), peasants, and traditional people territories, especially in the “Global South”<sup>1</sup> (see Santos 2014), will need

to resist against this economic necessity.

The largest reserves of natural resources are still to be explored in Latin America, Africa, and Asia. There is, therefore, an overwhelming threat to these ways of life and territories full of natural goods. In Brazil, the current situation has been aggravated due to a history of policies that threaten the ethnic diversity of native peoples and their territories, which are strongly supported by the existing government. The government has initiated two recent measures, in addition to fulfilling political promises, that guarantee an increase in the production of commodities and/or exploitation of natural resources. The Law Project 191/2020<sup>2</sup>, introduced by the Brazilian President, allows mining in the interior of indigenous lands. Similarly, the Amazon rainforest is under threat by Provisional Measure 910, which alters land regulation to allow land grabbing, which is the biggest driver of deforestation and invasion of traditional territories not

1 Concept developed in the context of decolonial studies, to understand how the relations between “colony” and “metropolis” countries still define the current global geopolitical relations. The Global South corresponds to historically expropriated countries, all of them in the southern hemisphere. For more details, see Santos (2014).

2 <https://www.camara.leg.br/proposicoesWeb/fichadetramitacao?idProposicao=2236765>

regulated by the State that have existed for decades and centuries.

Policies similar to these, unfortunately, are not all recent. Therefore, it is necessary to review and analyze previous strategies against the broader socio-environmental agenda in Brazil. With the rise of the extreme right government, the *modus operandi* finds political and institutional legitimacy through the seal of the Ministry of the Environment itself, which has withdrawn, albeit timidly, policies that strengthened these territories by previous governments. The list of problems is long, but it is worth highlighting a few examples. Deforestation rates have reached alarming levels since 2019 and the inspection agencies were abandoned when they tried to alert the government about the scientifically supported devastating consequences. As a result, the renowned scientist, Ricardo Galvão, then Director of the National Institute for Space Research, was exonerated because he defended scientific information as the basis for public policies. Several leaders of the Brazilian Institute of the Environment and Renewable Natural Resources and the Chico Mendes Institute for Biodiversity Conservation had their employment terminated because they prevented the criminal actions of land grabbing, logging, and mining in several indigenous territories. Accused of being extremist environmentalists, anyone who, in some way, defended the socio-environmental cause in the country, was seen as an enemy to the government. On August 10, 2019, known as the “fire day”, a movement led by ruralists and supporters of the government sparked large fires in the Amazon, causing diplomatic problems for

Brazil<sup>3</sup>.

In addition to the economic crisis, Brazil is experiencing an epistemic crisis, led by the disqualification of science by certain ultra-conservative sectors of Brazilian society, whose protagonists find supporters within the government. Part of the population, influenced by this denialist wave of science, acts in accordance with unofficial speeches and, thus, supports the government and its sociobiodiversity degrading projects. Ideas, including the earth is flat, and global warmings non-existence, are gaining strength throughout the country. However, this ultra-conservative mindset peaked during COVID-19, when the national representative denied the World Health Organization's warnings<sup>4</sup> based on scientific advances to minimize the impacts of the pandemic. Instead of being seen as crucial partners, universities, research institutes, and intellectuals, are viewed as enemies to the construction of public policies that address problems of different natures that affect the world.

Conserving biodiversity, defending the territories of traditional peoples and communities, valorizing sociobiodiversity products for local economies, and global health as a whole are topics of relevant interest that pose major challenges to all, specifically ethnobiology researchers. Thus, the COVID-19 pandemic provokes operational considerations in the field of ethnobiology. Firstly, it is necessary to proceed with a solid framework of theoretical and conceptual construction about the interrelationships between people and biodiversity, which has already started in several research groups around the world. We believe that ethnobiology, which often

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3 <https://www.theguardian.com/world/2019/aug/26/brazil-amazon-fire-day-warning> and <https://www.washingtonpost.com/politics/2019/10/07/brazilian-amazon-is-still-burning-who-is-responsible/>

4 [https://www.washingtonpost.com/opinions/global-opinions/jair-bolsonaro-risks-lives-by-minimizing-the-coronavirus-pandemic/2020/04/13/6356a9be-7da6-11ea-9040-68981f488eed\\_story.html](https://www.washingtonpost.com/opinions/global-opinions/jair-bolsonaro-risks-lives-by-minimizing-the-coronavirus-pandemic/2020/04/13/6356a9be-7da6-11ea-9040-68981f488eed_story.html)

experiences criticism and self-criticism during its theoretical development, is growing as a scientific field. New concepts and theories are continually presented and there are researchers thinking about major challenges (e.g., Albuquerque et al. 2019). In the context of COVID-19, Volpato et al. (2020) indicate that research in ethnobiology should, under the current conditions imposed by the pandemic, review its agenda and way of working. In this context, it is expected that investigations will cease to simply register species known to some social group, as was the historical tendency, and instead look for qualitative or quantitative research. As suggested by Gonçalves-Souza et al. (2019), an intrinsic relationship between theories, hypothesis testing, and statistical thinking will enable the advancement of ethnobiology. Scientific development on the relationship between people and biodiversity is an important issue to consider when developing strategies and public policies for the protection of traditional territories. The context of the pandemic must serve for scientists to sustain and proceed with the idea that the role of science in society is a non-negotiable principle for development and “buen vivir” (see Chuji et al. 2019) in countries, especially in megabiodiverse regions.

This pandemic also expected to advance the solid projects we call “Ethnobiology of Action” or “Engaged Ethnobiology”<sup>5</sup>, which encourage research that is oriented to the struggles of the subjects with whom we maintain dialogue. The “returns” of this study needs to be requalified. Communities do not expect access to the scientific product of research, such as theses and articles, as they are often untranslatable. Therefore, these communities want something else,

usually linked to the difficulties faced in their territories. Researchers sensitive to this can creatively reform their practices, listen to the wishes of the interlocutors, and renew their research methods by appropriating unconventional epistemologies to their strict field of training. To accomplish this goal, it is necessary to imbue ethnobiological research with social and political relevance without losing sight of its primordial essence. Interdisciplinarity research can be a good way to envision the transformation of this field and foresee the potential to enhance its social impact. Ethnobiological research, in this sense, must be at the service of native intellectuals, but never a disservice to traditional communities.

As a result of “Ethnobiology of Action”, it has become normal to look for mechanisms that guarantee the advancement of local and international, common, and proactive agendas. In addition to articulating ourselves in scientific congresses and symposia, it is important to create opportunities that allow for other forms of political impact. In order to further observe the guidelines of the Declaration of Belém+30, some international treaties, such as the Convention on Biological Diversity and Convention 169 of the International Trade Organization, configure traditional peoples as “subjects of rights” (Soldati and Albuquerque 2016).

These three indications will be strengthened if they go together. We understand that scientific concepts and theories are linked to public actions and policies that ultimately transform realities. Ethnobiology research can be useful socially, politically, and scientifically, by exploring and researching the problems that have been worsened by the current pandemic.

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5 <https://www.ethnobiologia.org/single-post/2018/12/27/Um-convite-%C3%A0-resist%C3%A0ncia-e-%C3%A0-esperan%C3%A7a-Por-uma-Etnobiologia-da-a%C3%A7%C3%A3o>

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