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## Brazil's environment calls for help!

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### Introduction

Jair Bolsonaro's victory is likely to further reduce investments in several of Brazil's strategic sectors, such as education and other important departments concerning the development of the nation and the quality of life of Brazilians, as these are not the priority issues for his government (Editorial 2018). The prioritization and maintenance of existing investments in strategic institutions, particularly in Brazilian universities, is important to promote the development of the nation, because almost all research produced in the country is performed in these institutions (ABC 2019). Such research includes the studies aimed, for example, at preserving the environment and combating the use of pesticides. The reduction in financial resources allocated to the two federal environmental agencies, the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA) and the Chico Mendes Institute for Biodiversity Conservation (ICMBio), is of particular significance when considering environmental issues. It should be considered a threat to nature, and especially to the world's largest rainforest, the Amazon, which has been affected by deforestation and biodiversity decline for years. Many Brazilian scientists estimate that almost 7,000 km<sup>2</sup> of the Amazon had been deforested by 2017 (Tollefson 2018), which can further increase deforestation in this region, as it happened in 2019. That is, according to the data from the Brazilian National Institute for Space Research (INPE 2019), deforestation in the Amazon region due to fires and the acceleration of mining activities increased by 29.54% in 2019, a significant rise compared to 2018 (Brazilian National Institute for Space Research 2019). Natural resources and ecosystems in Brazil continue to disappear, and getting support from the universities, development agencies, research institutes and indigenous communities at this time is of crucial importance.

### Tackling land conflicts in order to preserve natural resources and ecosystems

Constant deforestation will impact environmentally protected areas and indigenous lands (Tollefson 2018), and especially the latter have been particularly affected by the

considerable increase in the number of violent conflicts recorded across the country in the first year of the Bolsonaro regime. In 2019, the number of deaths of the Indigenous People in Brazil increased by 11% compared to 2018 (Passos 2020); 87.5% of the Indigenous People killed in such conflicts were the leaders. The Amazon continues to be the primary location of murders in the countryside (Passos 2020). In the first week of February 2020, President Bolsonaro announced a controversial project, sent to the Congress for approval, which would allow the commercial exploitation of minerals on indigenous lands (The Guardian 2020). The President stated that the Indigenous Peoples occupy vast lands in the country, making it difficult to explore the mineral resources such as gold and diamonds (The Guardian 2020). A project like this concerns the leaders of the Indigenous Peoples, environmentalists, and scientists because an increase in the mineral exploration would increase not only the destruction of the Amazon biome, but also the rate of violent conflicts in the country. Moreover, it could encourage the use of pesticides by companies that exploit natural resources, which would adversely affect the health of Indigenous Peoples and destroy the environment.

### No violent conflict against Indigenous People, no pesticides in the field

The rate of application of pesticides in the country increased significantly in 2019. Several of these products contain potentially dangerous components such as glyphosate, a cancer-related substance already banned in several countries; acephate, another substance banned in the European Union; and insecticides such as imidacloprid and thiamethoxam, both lethal to more than just bees (Tooge 2019). Because they have been shown to pose a risk to human health and to seriously harm biodiversity, prolific use of pesticides is of extreme concern (Coelho et al. 2019). Avoiding the consumption of foods contaminated with pesticides is recognized as having profound health benefits, and has been linked to reduction in costs for the public health system. Meanwhile, several scientific studies have pointed out the emergence of cancers linked to the exposure and

consumption of foods containing pesticides (Vasconcelos 2018). Providing sufficient environmental education would facilitate the dissemination of information to the wider community about the harmful effects of consuming food contaminated with pesticides and the benefits of consuming toxic-free food; it could even help in convincing rural producers to use alternative methods of planting, harvesting and marketing crops.

### Protection of mineral resources, Indigenous Peoples and biodiversity

Brazil is rich in biodiversity, and its forests hold approximately 12% of the global water resources, thereby playing a vital role in stabilizing the Earth's climate system (Levis et al. 2020). These are some of the reasons why scientists, environmentalists and Indigenous Peoples should reject the reduction in resources allocated for scientific research, particularly to environmental institutions. The Amazon region is at high risk of increased deforestation from fires, accelerated commercial mining activities, and violent land conflicts especially on indigenous lands, as well as from the prolific use of pesticides. Another course of action would be to also boycott commodities produced on deforested lands exploited for the natural resources, and lands that have been continually targeted by pesticides. Our community has a predominant role to play in the supervision and non-acceptance of such issues; we hold the power, and 'All power comes from the people' (Brazil 1988). To fight against these issues, our duty is to resist the dismantling of environmental and social policies promoted by the current Brazilian government.

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