

Science online eLetter, <https://doi.org/10.1126/science.adu9113>

Apr. 15, 2025

Response to “Corrections and context: Oil exploration, social inequality and the local reality in the Amazon”

Philip Fearnside

National Institute for Research in Amazonia (INPA), Manaus, Amazonas, Brazil

The 29 March eLetter by Allan Kardec Barros (1) criticizing the *Science* editorial “COP 30: Brazilian policies must change” (2) illustrates some of the ways that discussion of the topics treated in the editorial pivot to other questions rather than facing uncomfortable issues. Whether what are widely known in Brazil as the “mouth of the Amazon” oilfields are instead in a geologically distinct basin makes no difference in the impact on global warming, on Brazil’s leadership on this issue, and on the potentially devastating environmental impact should an oil spill occur (3). In addition, the drilling block in question (FZA-M-59) serves as a spearpoint for 47 other blocks in the “mouth of the Amazon” area that are set to be auctioned on 17 June this year (4, 5).

Poverty and social inequality in the Amazon are obvious, and reducing these ills should be a priority for the Brazilian government. However, the oil from either the mouth of the Amazon or from planned new oilfields in the Amazon forest is not the answer to this. Brazil is not Norway, which is an outlier in its experience with petroleum development because socio-economic benefits have been possible due the exceptionally egalitarian and strong democratic institutions that were in place in the country prior to the influx of oil revenue. Even highly developed countries like the Netherlands have not been so fortunate, where the discovery of North Sea oil and gas in the 1960s led to a sudden drop in all social indicators due to a series of consequences known as the “Dutch disease” (e.g., 6, 7). For the vast majority of countries, the “natural resources curse” plays out in a way that is very different from Norway’s experience (see the recent review by Narh) (8). It is not a coincidence that countries with fabulous mineral resources, such as the Democratic Republic of Congo and Bolivia, have the greatest levels of poverty. Oil, like other mineral resources, also leads to concentration of wealth in the hands of a few families and companies and to more authoritarian governments, as in Venezuela, Iran, Saudi Arabia and Russia (and recently the USA).

The eLetter implies that the fossil fuel extracted from the mouth of the Amazon will benefit local people. Guyana, where huge offshore oil revenues from Exxon/Mobile are often cited in Brazil as justification for the mouth-of-the-Amazon project, has recently been found to be on the typical resource-curse path, with increasing inequalities and poverty (9). Brazil’s experience also differs from the assumption of the eLetter author, both in communities receiving royalties from offshore oil and gas (10-13) and in areas

surrounding extraction sites in the Amazon forest (14). Social ills are already appearing in Amapá, the state adjacent to the mouth-of-the-Amazon project, from changes in anticipation of an oil bonanza (14).

References

- 1) Barros, A.K. 2025. Corrections and context: Oil exploration, social inequality and the local reality in the Amazon. *Science* online eLetter, 29 March 2025. <https://doi.org/10.1126/science.adu9113>
- 2) Fearnside, P.M. & Leal Filho, W. 2025. COP 30: Brazilian policies must change. *Science* 387: 1237. <https://doi.org/10.1126/science.adu9113>
- 3) Fearnside, P.M. 2025. Oil drilling in the mouth of the Amazon - Lula on a course to disaster (commentary). *Mongabay*, 24 February 2026. <https://news.mongabay.com/2025/02/oil-drilling-in-the-mouth-of-the-amazon-lula-on-a-course-to-disaster-commentary/>
- 5) *ClimaInfo*. 2025. Licença para Petrobras na foz do Amazonas abriria “porteira” na região. *ClimaInfo*, 4 April 2025. <https://climainfo.org.br/2025/04/04/licenca-para-petrobras-na-foz-do-amazonas-abriria-porteira-na-regiao/>
- 4) *ClimaInfo*. 2025. ANP confirma 47 blocos da foz do Amazonas no próximo leilão. *ClimaInfo*, 14 April 2025. <https://climainfo.org.br/2025/04/14/72644/>
- 6) de Camargo, J.S.M. & Gala, P. 2017. The resource curse reloaded: Revisiting the Dutch disease with economic complexity. Working Paper 448, Escola de Economia de São Paulo da Fundação Getulio Vargas, São Paulo, SP, Brazil. 20 pp. <https://repositorio.fgv.br/server/api/core/bitstreams/0036bf91-8e0d-4a38-a5b4-d7a48a30c014/content>
- 7) Moisé, G.M. 2020. Corruption in the oil sector: A systematic review and critique of the literature. *The Extractive Industries and Society* 7(1): 217-236. <https://doi.org/10.1016/j.exis.2020.01.002>
- 8) Narh, J. 2025. The resource curse and the role of institutions revisited. *Environment, Development and Sustainability* 27: 8187-8207. <https://doi.org/10.1007/s10668-023-04279-6>
- 9) Bispo, F. 2025. ExxonMobil consolida ‘petroestado’ em meio a denúncias ambientais na Guiana. *InfoAmazonia*, 8 April 2025. <https://infoamazonia.org/2025/04/08/exxonmobil-consolida-petroestado-em-meio-a-denuncias-ambientais-na-guiana/>

10) *ClimaInfo*. 2025. Estudo identifica 25 novos impactos da exploração do pré-sal. *ClimaInfo*, 3 April 2025. <https://climainfo.org.br/2025/04/03/estudo-identifica-25-novos-impactos-da-exploracao-do-pre-sal/>

11) Aguilera, J. 2023. Maricá (RJ): Apesar de tentativas, petróleo e gás não trazem desenvolvimento local. *ClimaInfo*, 27 November 2023. <https://climainfo.org.br/2023/11/27/marica-rj-apesar-de-tentativas-petroleo-e-gas-nao-trazem-desenvolvimento-local/>

12) Aguilera, J. 2023. Macaé (RJ): a “Capital do Petróleo” se vê refém da flutuação do mercado fóssil. *ClimaInfo*, 27 November 2023. <https://climainfo.org.br/2023/11/27/macae-rj-a-capital-do-petroleo-se-ve-refem-da-flutuacao-do-mercado-fossil/>

13) Aguilera, J. 2023. Maranhão: Onde o gás fóssil descaracteriza comunidades quilombolas. *ClimaInfo*, 27 November 2023. <https://climainfo.org.br/2023/11/27/maranhao-onde-o-gas-fossil-descaracteriza-comunidades-quilombolas/>

14) Borges, A. 2023. Insustentáveis: Dubai amazônica não vê progresso nem riqueza após décadas de exploração de poços de petróleo e gás. *ClimaInfo*, 6 December 2023. <https://climainfo.org.br/2023/12/06/insustentaveis-dubai-amazonica-nao-ve-progresso-nem-riqueza-apos-decadas-de-exploracao-de-pocos-de-petroleo-e-gas/>

15) Gaspari, A. 2024. Além de mudanças climáticas, combustíveis fósseis causam crise social. *ClimaInfo*, 22 August 2024. <https://climainfo.org.br/2024/08/22/alem-de-mudancas-climaticas-combustiveis-fosseis-causam-crise-social/>