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Brazilian politics threaten environmental policies

The country's environmental licensing system is threatened

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The tumultuous political situation in Brazil carries risks for the environment in the most biologically diverse country in the world, home to the world's largest tropical forests and rivers. Among the threats is a proposed one-sentence constitutional amendment (PEC-65) that would revoke 40 years of progress in building a licensing system to evaluate and mitigate environmental impacts of development projects (1). Under PEC-65, the mere submission of an environmental impact assessment (EIA), regardless of its content, would allow any project to go unstopably forward to completion. The scientific community contributed greatly to Brazil's environmental licensing system and now must redouble its efforts to communicate its importance

Despite its limitations [e.g., (2)], Brazil's environmental licensing system, which began requiring EIAs in 1986, is vital in restraining infrastructure projects with exceptionally high impacts. The scientific community has documented services provided by Amazonian ecosystems to Brazil and to the world and has increased understanding of how services are lost when ecosystems are destroyed. Large infrastructure projects, such as highways and dams, are key drivers of these losses.

Yet proponents of PEC-65 claim that licensing procedures imply "waste of much time and of large quantities of government funds in flagrant disrespect for the will of the population" (1). The amendment reads: "Submission of the preliminary environmental impact study corresponds to authorization to execute the project, which may not be suspended or cancelled for the same reasons [i.e., environmental reasons] except in the face of additional unexpected facts." (1). In April 2016, a Senate committee approved PEC-65, clearing it for a full Senate vote. Senators opposed to PEC-65 were able to delay by returning it to committee, although the committee has the same makeup. Amendments require only a 60% majority in each house of the National Congress, after which they automatically take effect with no need for presidential sanction. Brazil's October 1988 constitution had been amended 90 times by December 2015 (3).

A spokesperson for the nongovernmental Brazilian Institute of Environmental Protection compared PEC-65 with allowing a student who passes the entry exam for an undergraduate medical program to immediately begin performing surgery (4). The Federal Council of Biology, which represents Brazil's biologists, has expressed indignation and has petitioned leaders in both houses of Congress (5). The Federal Public Ministry (charged with defending the interests of the people) has prepared a legal opinion (6) contesting the proposed amendment. Constitutional conflicts can potentially be judged by the Supreme Court.

This threat is added to a proposed law (654/2015) (7) awaiting a full Senate vote. This would allow any “strategic” project, such as a hydroelectric dam, to have simplified “fast-track” environmental approval. The normal sequence of three licenses (preliminary, installation, and operational) would be condensed to one license, with a virtually impossible deadline of 8 months for the environmental agency to approve the license, which normally takes 4 to 5 years. After the deadline, the project would be automatically authorized to proceed.

Brazil’s vast plans for dams and highways (8) make the potential consequences enormous (see the figures, left and below). The government’s most complete list of planned dams called for 79 large dams in Brazil’s Amazon region flooding 10 million hectares (9). Planned highways would connect inaccessible areas in the central and western parts of the region to the “arc of deforestation” where clearing has been concentrated along the southern edge of the forest.

The makeup of Congress and their potential to respond to corporate development influences on environmental issues (10) heighten the chances of sudden approval of environmentally damaging measures. The politicians involved are some of the most powerful in Brazil, with histories that suggest a willingness to exploit and degrade the environment [e.g., (11)]. Aggravating the situation is the impeachment trial of President Dilma Rousseff, initiated 11 May 2016, resulting in her being replaced by Vice President Michel Temer for up to 180 days while the trial proceeds and, if one presumes that the same majority in favor of impeachment remains unchanged, until the presidential term ends in January 2019.

Frenetic activities surrounding impeachment proceedings led to an emptying out of normal Senate functions, such as committee sessions. This presented an opportunity for those interested in approving “sleeping” proposals to reverse environmental progress (PEC-65 had been pending since 2012), which can seemingly spring from nowhere to become full-blown threats. With collaboration of most of Brazil’s political parties in approving the impeachment proceedings, the mood among politicians is one of unusual unity to approve measures proposed by the interim government to stimulate the country’s economy, e.g., freeing development projects from environmental restrictions.

Brazil’s environmental governance, including licensing, was plagued by problems before the recent political tumult [e.g., (12)], particularly with a legislature dominated by “ruralists” (congressional representatives of large landholders). The power of this group was demonstrated by the 2011 vote by a seven-to-one margin to greatly reduce environmental protections in Brazil’s Forest Code [e.g., (13)], despite the opposition of 80% of the Brazilian population to any change in the code (14).

A leader of the ruralists, also Brazil’s largest soy planter, has been appointed Minister of Agriculture, which suggests higher priority for infrastructure projects for transporting soybeans (15). The ruralists have requested Interim President Temer to revisit executive-branch decisions from the final days of the previous administration on creating indigenous lands and protected areas called “conservation units.” The new Minister of Justice has stated that all decisions from the end of the previous administration will be “reevaluated” (16). The previous administration declared seven indigenous lands totaling 14.8 million hectares in its last month in office (17).

Indigenous lands are particularly important because they protect a greater area than do conservation units and they have a better record of resisting deforestation (18). Representatives of the state of Amazonas in the National Congress, together with a delegation from the state legislature, have made a direct appeal to the interim president to repeal five newly created conservation units in the Amazon region's largest state (19).

Also awaiting approval is PEC-215, a proposed constitutional amendment that has long been on the ruralists' agenda (20). This would transfer authority for creating indigenous lands and conservation units from the executive to the legislative branch, effectively ending creation of new protected areas so long as control of the legislature remains with the ruralists. Other legislation awaiting approval would open indigenous lands to mining (21). A proposal by state governments to weaken the licensing system by allowing "self-licensing" is progressing through the National Council on the Environment (22).

There are no easy solutions to these problems. Making the legislature more responsive to the impacts of unfettered infrastructure construction and less responsive to special interests is necessary. The ongoing "Lava Jato" ("Car Wash") corruption probe may help [e.g., (23)]. Communication by scientists and other experts with decision-makers is essential, despite a history of such information being ignored, as in the case of the Forest Code revision [e.g., (24)].

The executive branch is also key, despite its frequently ignoring scientific advice [as in the case of licensing the Belo Monte Dam (25)]. The Ministry of the Environment and the National Foundation of the Indian (under the Ministry of Justice) originated the substantial expansion of conservation units and officially recognized indigenous lands over past decades, despite opposition from more powerful ministries, such as mines and energy, transport, and agriculture.

A constant risk is that scientists and others working on the environment in Amazonia succumb to fatalism by assuming that avoiding regional destruction is a lost cause. Continued input from the scientific community is critical to guide environmental policy toward a better future in Brazil.

REFERENCES AND NOTES

1. Senado Federal, Proposta de Emenda à Constituição no. ____, de 2012 (2016); www.senado.leg.br/atividade/rotinas/materia/getTexto.asp?t=120446&c=RTF&tp=1.
2. P. M. Fearnside, *Water Altern.* 7, 156 (2014).
3. G. de Moura Rocha Lima, Ph.D. thesis (2016); <http://bit.ly/LimaThesis>.
4. A. Borges, *O Estado de São Paulo*, 29 April 2016, p. 27.
5. CFBio (Conselho Federal de Biologia), CFBio entrega ofícios ao relator da PEC 65 e ao presidente da CCJ (CFBio, Brasília, Brazil, 2016).

6. Grupo de Trabalho Intercameral, Ministério Público Federal, Nota Técnica- A PEC 65/2012 e as cláusulas pétreas (MPF, Brasília, DF, Brazil, 2016).
7. Senado Federal, Texto Final Projeto de Lei do Senado no. 654, de 2015 (Senado Federal, Brasília, DF, Brazil, 2015).
8. P. M. Fearnside, *Global Land Proj. News* 12, 22 (2015).
9. P. M. Fearnside, *Environ. Conserv.* 22, 7 (1995).
10. C. Zucco Jr., B. Lauderdale, *Legis. Stud. Q.* 36, 363 (2011).
11. “Senador eleito mais rico tem quase R\$ 400 milhões; veja onde eles investem,” *Infomoney*, 9 October 2014; <http://bit.ly/WealthElectedSenators>.
12. J. Ferreira et al., *Science* 346, 706 (2014).
13. B. Soares-Filho et al., *Science* 344, 363 (2014).
14. R. J. Lopes, *Folha de São Paulo*, 13 June 2011; <http://bit.ly/KeepForestProtection>.
15. P. M. Fearnside, *Environ. Manage.* 39, 601 (2007).
16. M. Bergamon, *Folha de São Paulo*, 16 May 2016, p. A-14.
17. Instituto Socioambiental (ISA), Ministério da Justiça declara mais três Terras Indígenas (ISA, Brasília, Brazil, 2016).
18. D. Nepstad et al., *Conserv. Biol.* 20, 65 (2006).
19. “Bancada tenta reverter decretos,” *Amazonas em Tempo*, 16 June 2016, p. A-8.
20. *O Eco*, “Ruralistas não desistirão da PEC das terras indígenas,” *O Eco*, 5 February 2015; <http://bit.ly/Amendment2block-new-indigenouslands>.
21. C. Barros, I. Barcelos, *Folha de São Paulo*, 16 June 2016, p. B-10.
22. ISA, Nota técnico-jurídica: Minuta de resolução CONAMA sobre licenciamento ambiental (ISA, Brasília, Brazil, 2016).
23. M. Baquero, *Revista Debates* 9, 139 (2015).
24. J.-P. Metzger et al., *Science* 329, 276 (2010).
25. F. M. Hernandez, S. B. M. dos Santos, *Nov. Cadernos NAEA* 14 (1), 79 (2011).

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