

The Yanomami: Illegal Mining, Law, and Indigenous Rights in the Brazilian Amazon

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ABSTRACT

The Yanomami are one of the largest isolated indigenous tribes in the world. They inhabit the Amazon rainforest, which is under significant pressure from a variety of companies and groups, including illegal miners. Illegal mining has been omnipresent and especially problematic for the Yanomami—the tribe has endured violence, disease, and constant encroachment at the hands of unauthorized small-scale gold prospectors since the early 1980s. Brazilian law recognizes the land and human rights of indigenous peoples and directs the government to demarcate land traditionally occupied by tribes. Brazil is also a signatory to many human rights treaties and agreements that require the government to respect, protect, and enforce indigenous rights. However, a number of Brazilian laws and policies regarding land preservation, exploitation, and ownership conflict with Yanomami land rights. In addition, while the Brazilian government has technically already demarcated Yanomami land, the Yanomami reserve is flooded with thousands of illegal miners at any given time, and the rudimentary mining methods employed by these “garimpeiros” (prospectors) have proven deleterious to Yanomami health and the environment. The Yanomami should petition the Inter-American Commission on Human Rights to hold the Brazilian government accountable for the continued violation of the tribe’s human and environmental rights. The Yanomami may also explore relief at the state and federal levels. A Brazilian Amazon policy that focuses less on third parties and development and more on the rights of the Yanomami will serve to protect the Amazon rainforest and the livelihood and culture of this imperiled tribe.

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INTRODUCTION

The Yanomami are one of the largest isolated indigenous tribes in the world.¹ Despite the fact that the Brazilian government demarcated Yanomami territory over twenty years ago, Yanomami land and culture in the Amazon rainforest are still under great pressure from illegal miners, mining companies, and farmers.² Although useful, the demarcation of land and creation of indigenous reserves directly conflicts with Brazil's mining, land use, and economic development laws and policies, which have long focused on expanding opportunities for businesses and "landless" families, rather than the preservation of indigenous cultures.³ In addition to causing significant deforestation and environmental degradation, illegal mining on Yanomami land has led to social unrest, violence, and disease among the tribe.⁴

I. YANOMAMI CULTURE AND BACKGROUND

The Yanomami live in the Amazon rainforest along the border between Venezuela and Brazil.⁵ Their population is estimated to be approximately thirty-two thousand people, the majority of whom live in Brazil.⁶ In Venezuela, the tribe lives in Alto Orinoco in the state of Amazonas, while the Brazilian Yanomami live in the states of Amazonas and Roraima.⁷ Tribe members live in large communal houses called *shabonos*, reflecting their general approach to community: the Yanomami believe in equality, there are no chiefs, and tribal decisions are made by consensus.⁸ The men in the tribe hunt, gather, and fish to

1. See *The Yanomami*, SURVIVAL INT'L, <http://www.survivalinternational.org/tribes/yanomami> (last visited Apr. 22, 2015).

2. Brian Gross & Shelly Tan, *The Yanomami: An isolated yet imperiled Amazon Tribe*, WASH. POST, July 25, 2014, <http://www.washingtonpost.com/wp-srv/special/world/yanomami>; see also SURVIVAL INT'L, *supra* note 1.

3. See generally DENNIS J. MAHAR, THE WORLD BANK, GOVERNMENT POLICIES AND DEFORESTATION IN BRAZIL'S AMAZON REGION (1989).

4. See SURVIVAL INT'L, *supra* note 1; Gross & Tan, *supra* note 2; Talita Bedinelli, *Illegal Gold-Mining Presents New Threat for Brazil's Isolated Tribes*, EL PAIS, Dec. 30, 2014, http://elpais.com/elpais/2014/12/30/inenglish/1419951095_909944.html.

5. *Id.*

6. *Id.*

7. *Demarcation—and then what? Brazil takes a step, but its commitment to protecting indigenous lands is not proven*, CULTURAL SURVIVAL, <http://www.culturalsurvival.org/publications/cultural-survival-quarterly/brazil/demarcation-and-then-what-brazil-takes-step-its-comm> (last visited Apr. 22, 2015); see also Gross & Tan, *supra* note 2.

8. SURVIVAL INT'L, *supra* note 1.

provide sustenance for their families and communities.⁹ The Yanomami are semi-nomadic and depend on soil regeneration and biodiversity.¹⁰ In the Yanomami religion, the spirit world is connected to the present world through animals and the environment.¹¹ All creatures and elements of the forest have spirits. For example, Pico da Neblina, the highest mountain in Brazil, is one of the most sacred places in Yanomami religion: the Yanomami believe that the mountain is home to many of their guiding spirits.¹²

II. AMAZONIAN ENCROACHMENT AND DEMARCATION

Travelers, explorers, and governments have long treated the Amazon and its people solely as something to conquer.¹³ Unfortunately, governmental incursions into the Amazon have generally resulted in the destabilization—and sometimes complete destruction—of indigenous lands and cultures.¹⁴ The first official Brazilian governmental interest in the Amazon’s natural resources dates back to the 1800s, when the Portuguese discovered rubber in the Amazon, thus beginning an “Amazonian Rubber Boom.”¹⁵ In the 1960s, Brazil’s new military government instituted an Amazonian development period—providing incentives and subsidies for companies, industries, and individuals to settle, raise cattle, and mine in the Amazon.¹⁶ In 1967, the Brazilian government created the National Indian Foundation (“FUNAI”) in the interest of national security.¹⁷ At the time, the authoritarian regime viewed the Amazon as vulnerable to foreign powers and aimed to integrate indigenous communities and land into Brazilian society and the economy.¹⁸ While FUNAI now attempts to ensure respect for indigenous legal and constitutional rights, its authority and actions throughout the 1970s and 1980s reflected a pro-government and pro-business policy of indigenous “integrationism.”¹⁹

Accordingly, the federal government began construction of Transamazônica, the Transamazon highway, in the early 1970s. The construction of the highway

9. *Id.*

10. Gale Goodwin Gomez, *Indigenous Rights and the Case of the Yanomami Indians in Brazil*, in *THE HUMAN RIGHTS OF INDIGENOUS PEOPLES* 185, 189 (Cynthia Price Cohen ed., 1998).

11. See SURVIVAL INT’L, *supra* note 1; see also Gross & Tan, *supra* note 2.

12. Gross & Tan, *supra* note 2.

13. See generally HORTENSIA RAIZA CABALLERO-ARIAS, *ENGAGING IN POLITICS: YANOMAMI STRATEGIES IN THE FACE OF VENEZUELA’S NATIONAL FRONTIER EXPANSION* 168 (2003).

14. See generally David E. Toohey, *Indigenous Peoples, Environmental Groups, Networks and the Political Economy of Rainforest Destruction in Brazil*, 17 INT’L J. OF PEACE STUDIES 73, 74 (2012); see also SURVIVAL INT’L, *supra* note 1.

15. MAHAR, *supra* note 3, at 10.

16. See *id.* at 11.

17. See Georgia Carvalho, *The Politics of Indigenous Land Rights*, 19 BRAZIL BULLETIN OF LATIN AMERICAN RESEARCH 461, 465-66 (2000).

18. See *id.*

19. See *id.*; see also SURVIVAL INT’L, *supra* note 1.

was part of an effort to open the Amazon for development by creating a path for poor rural families in northeast Brazil to build more prosperous lives in the northwest.²⁰ As a part of these development goals, the military government formed a number of new agencies to focus exclusively on development and resettlement in and near the Amazon, including the Superintendency for the Development of Amazonia (“SUDAM”) and the Bank of Amazonia.²¹ The government also formed the National Institute for Colonization and Agrarian Reform, which committed a considerable amount of human and financial capital not only to the construction of the Transamazon highway, but also to a settlement program that moved poor, landless families in northeastern Brazil to villages and cities along the highway.²² The government offered tax credits to corporations, subsidized rural lines of credit, and instituted settlement schemes in an attempt to bring businesses and families further west, inevitably into territory that was traditionally indigenous land.²³ Although the government did not reach its goal of resettling seventy thousand families along the highway—or ultimately complete the highway—the construction and associated development brought towns, roads, and people to parts of Brazil that were previously impassable.²⁴ All of this change led to environmental degradation and deforestation around the roads and highways.²⁵ Between 1978 and 2000, approximately sixty-five million hectares of Amazonian forest were lost.²⁶

This unprecedented movement of people and businesses did not just affect unoccupied parts of the Amazon—the military governments of the 1970s and early 1980s deliberately opened indigenous lands for exploitation with no consideration of the needs or desires of indigenous people. Amazonian development at the time was shaped by various interests and sectors, but never by the indigenous Amazonian peoples.²⁷ During the 1970s in particular, mineral deposits were discovered throughout Yanomami territory.²⁸ Up to forty-five thousand gold-miners invaded the territory in the 1980s, and in 1983, the government passed decree 88.988, “which effectively opened indigenous lands to mining

20. Nigel J.H. Smith, *Brazil's Transamazon Highway Settlement Scheme: Agrovilas, Agropoli, and Ruropoli*, 8 ASS'N OF AM. GEOGRAPHERS 129, 129 (1976).

21. MAHAR, *supra* note 3, at 11.

22. *Id.* at 26.

23. *See generally id.* at 13-25.

24. *Id.* at 26; Gross & Tan, *supra* note 2; *see also* Smith, *supra* note 20, at 130 (stating that the original goal was to settle 100,000 families along the highway by 1976).

25. *See* MAHAR, *supra* note 3, at 13.

26. Thierry Bonaudo et al., *The effects of Deforestation on Wildlife along the Transamazon Highway*, 51 Eur J. Wildl. Res. 199, 199 (2005).

27. Bruce Albert, *Indian Lands, Environmental Policy and Military Geopolitics in the Development of the Brazilian Amazon: The Case of the Yanomami*, 23 DEV. & CHANGE 35, 36 (1992); *see also* Carvalho, *supra* note 17, at 465.

28. *See* Case 7615, Inter-Am. C.H.R. Res. No. 12/85 (1985) [hereinafter Yanomami Case].

companies, both state and private.”²⁹ The influx of mining companies, *garimpeiros* (prospectors), and others resulted in violence and Yanomami deaths from tuberculosis, measles, and influenza epidemics.³⁰

After years of land and health struggles as well as international pressure and Yanomami advocacy, Brazilian President Fernando Collor de Mello authorized the demarcation of Yanomami land in November 1991, although the official demarcation did not take place until early 1992 due to widespread lobbying and political opposition to the creation of a large, continuous Yanomami reserve.³¹ The demarcation, at least in law, set aside over eight million hectares of land for the Yanomami.³² Yet in reality, the demarcation was somewhat futile.³³ “The allotment of public forests to local communities is carried out through the identification of areas occupied by traditional populations, such as indigenous communities[.]”³⁴ It involves physically “clearing a strip through the forest and placing markers two hundred yards apart along the entire perimeter, including riverbeds.”³⁵ However, demarcating land and placing warning signs does not protect indigenous territory from invasions or intruders, especially in the Amazon, which is characterized by thick forests, mountains, and rivers.³⁶

The demarcation of Yanomami land resulted in a number of separate and disjointed areas enclosed within two of Brazil’s National Forests and one National Park.³⁷ Thus the area officially designated as “Yanomami Land” is legally a mixture of national land and Indian land, creating a situation in which the Yanomami traditional lands are subject to constant encroachment and a lack of governmental protection.³⁸ Despite noble intentions, demarcation has proved somewhat flawed in practice. For instance, the 1988 Brazilian Constitution recognized the government’s duty to demarcate and protect indigenous peoples’ “traditionally occupied” lands, but between 1987 and 1990, 23.5 million acres of Yanomami traditional land were divided

29. See SURVIVAL INT’L, *supra* note 1; INTER-AM. COMM’N ON HUMAN RIGHTS, *The Yanomami: The Fragility of Their Culture and Conditions For Physical and Cultural Survival*, in REPORT ON THE SITUATION OF HUMAN RIGHTS IN BRAZIL, (Org of Am. States), available at <http://www.cidh.org/countryrep/brazil-eng/chaper%206-1.htm>; Carvalho, *supra* note 17, at 466.

30. Yanomami Case, *supra* note 28; see Gross & Tan, *supra* note 2.

31. CULTURAL SURVIVAL, *supra* note 7; Gomez, *supra* note 10, at 192; Albert *supra* note 27, at 62.

32. See Albert, *supra* note 27, at 41.

33. See *id.*

34. INT’L TROPICAL TIMBER ORG., STATUS OF TROPICAL RAINFOREST MANAGEMENT 2011 BRAZIL 280 (2012) available at http://www.itto.int/direct/topics/topics_pdf_download/topics_id=2651&no=0&file_ext=Brazil+profile.pdf.

35. CULTURAL SURVIVAL, *supra* note 7.

36. *Id.*

37. See Albert, *supra* note 27, at 41.

38. *Id.*

into nineteen isolated areas and reduced by 70%.³⁹ “Two thirds of the original territory was opened up to mining exploitation—especially gold.”⁴⁰

While demarcation resulted in the expulsion of thousands of miners, an estimated eleven thousand *garimpeiros* were again working illegally in Yanomami territory by 1993.⁴¹ Between June and July of 2003, a group of these Brazilian *garimpeiros* crossed the Brazilian border into the Haximu territory of Venezuela, where they murdered sixteen Yanomami, including men, women, and children.⁴² The Inter-American Commission on Human Rights (“IACHR”) recognized the massacre as an act of genocide, and five of the seven defendants were convicted in the Brazilian criminal justice system.⁴³ The “Haximu massacre” gained international recognition, but it was just one of many acts of violence against the Yanomami following the gold rush of the 1980s.⁴⁴ Yanomami land has been subjected to constant unauthorized encroachment over the past forty years, and the Yanomami are still fighting for the recognition of their human and land rights in the Amazon.⁴⁵

III. MINING IN THE AMAZON

There are great deposits of nickel, bauxite, manganese, iron ore, and gold throughout the Amazon, but the discovery and subsequent mining of these minerals have proven time and again to have negative effects on the environment and nearby indigenous communities.⁴⁶ A mining company or cooperative’s ability to mine a certain area may be limited based on the size or type of cooperative, the size of the mining area, and whether the cooperative intends to mine on federally protected land.⁴⁷ Yet even federally protected land in Brazil is subject to an overlapping and sometimes conflicting patchwork of laws relating to natural resource exploitability. For example, approximately ten million hectares of indigenous land are classified as federally protected areas on which

39. INTER-AM. COMM’N ON HUMAN RIGHTS, *supra* note 29; *see also* C.F. art. 231 (Braz.).

40. INTER-AM. COMM’N ON HUMAN RIGHTS *supra* note 29.

41. *See* SURVIVAL INT’L, *supra* note 1; Gomez, *supra* note 10, at 192.

42. INTER-AM. COMM’N ON HUMAN RIGHTS, Petition 11.745. Rep. No. 88/11 (2011) at 1.

43. *Id.* at 2. In 2011, the IACHR decided to archive the Yanomami petition, which alleged “negligence and omission on the part of the Brazilian Government in the massacre of 16 indigenous Yanomami” The Commission found that Brazil had reached final decisions and thoroughly prosecuted at least five of the *garimpeiros*. *Id.* at 1.

44. *See* INTER-AM. COMM’N ON HUMAN RIGHTS, *supra* note 29; *see also* Gross & Tan, *supra* note 2.

45. *See* Gross & Tan, *supra* note 2.

46. World Wildlife Fund, *Amazon Mining: Extracting valuable minerals and a Pandora’s Box of Problems*, http://wwf.panda.org/what_we_do/where_we_work/amazon/problems/other_threats/amazon_mining/ (last visited Apr. 22, 2015); *see also* Carvalho, *supra* note 17, at 466.

47. *See generally* INT’L TROPICAL TIMBER ORG., *supra* note 34, at 274-75; Simone Bauch et al., *Forest Policy Reform in Brazil*, 107 J. FORESTRY 132, 134 (April/May 2009); *A mineracao em unidades da conservacao. Como nao comprometer oportunidades futuras? Entrevista especial com Joice Ferreira*, AMAZONIA (Nov. 18, 2014), <http://amazonia.org.br/2014/11/page/15/>; Maria Laura Barretto, *Legal Issues Related to Garimpos in Brazil*, in *MERCURY IN THE TAPAJOS BASIN* 111, 111 (Robert C. Villas-Boas, Christian Beinhoff, Alberto Rogerio da Silva eds., 2001).

sustainable development is permitted.⁴⁸ Brazil recognizes four protected land statuses: federal and state conservation units (“SNUC”), indigenous lands, legal reserves and permanent preservation areas, and “‘other public forests’ protected by law.”⁴⁹ The SNUC is further divided into two groups: units of integral protection and sustainable use units.⁵⁰ By law, there is no “consumption, collection, damage, or destruction of natural resources” within units of integral protection; however, sustainable development is allowed in sustainable use units and the legal reserves.⁵¹

Indigenous lands may be classified as (1) reserves; (2) parks; (3) agricultural colonies; or (4) federal territory, all of which receive differing levels of federal assistance and oversight.⁵² Indigenous agricultural colonies, for example, have a mixture of indigenous and non-indigenous peoples and agricultural (farming and livestock) programs administered by FUNAI.⁵³ Mining and other exploitation of indigenous land is technically only permitted with “the authorization of the National Congress, after hearing from the communities involved”⁵⁴ Legal reserves are privately owned property that must be “maintained under native vegetation,”⁵⁵ and private landowners of legal reserves in the Amazon are obligated to keep 80% of their land in its natural state; the land may only be altered after a forest management plan has been drafted and approved by a state or federal environmental agency.⁵⁶ Outside of the protected lands, approximately 24% of the Amazon is designated as private landholdings with another 25% designated as “unclaimed public lands” that have yet to be fully inventoried by the government but could likely be classified as traditional indigenous land.⁵⁷

Considering the existence of these various protected land statuses, it would seem that mining and other exploitative activities in the Amazon would be minimal; as of 2000, only 2% of the Brazilian Amazon had been legally allocated for mining.⁵⁸ But in 2012, a new bill was proposed to amend the SNUC system to

48. Bauch et al., *supra* note 47, at 134.

49. See INT’L TROPICAL TIMBER ORG., *supra* note 34, at 274-75.

50. *Id.* at 275.

51. *Id.* Different kinds and degrees of environmental exploitation, such as logging, are allowed within sustainable use areas; the protection of biodiversity is a secondary objective. PAULO BARRETTO ET AL., HUMAN PRESSURE ON THE BRAZILIAN AMAZON RAINFORESTS 71 app. 1 (Greg Mock ed., 2006).

52. See SILVANE PAIXAO ET AL., MODELING BRAZILIAN INDIGENOUS TRIBES LAND RIGHTS WITH ISO 19152 LADM 133, 143 (2013), available at https://www.fig.net/news/news_2013/ladm2013/11.pdf.

53. *Id.*

54. C.F. art. 231 (Braz.).

55. INT’L TROPICAL TIMBER ORG., *supra* note 34, at 275.

56. See *id.*; Bernardo Mueller & Lee J. Alston, *Legal Reserve Requirements in Brazilian Forests: Path Dependent Evolution of De Facto Legislation*, 2007 ASSOCIAÇÃO NACIONAL DOS CENTROS DE PÓS-GRADUAÇÃO EM ECONOMIA 1, 1, available at <http://www.anpec.org.br/encontro2007/artigos/A07A147.pdf>.

57. A Verissimo & M. Lentini, *The Brazilian Amazon, Forests and Forestry in the Americas: An Encyclopedia*, <http://www.encyclopediaoofforestry.org/index.php/Brazil102> (last updated Aug. 22, 2007).

58. BARRETTO ET AL., *supra* note 51, at 50.

allow for mineral exploration in 10% of currently protected areas.⁵⁹ In July 2014, there was a “new bill pending before Brazil’s Chamber of Deputies” that would declare a public interest in allowing Indian reserves to be used for farming, mining, hydroelectric dams, and other uses.⁶⁰ As of November 2014, mining companies and others had registered an official interest in mining on land constituting approximately 30% of Yanomami territory.⁶¹ FUNAI estimated “that at least 3,000 gold prospectors are searching for minerals in Yanomami lands, which cover a 9.6 million-square-hectare area—slightly larger than Portugal.”⁶²

Garimpeiros and mining companies generally have three different options when planning to mine in protected areas: (1) contract and negotiate directly with the indigenous inhabitants; (2) apply for a license, waiver, or concession from the state or federal government for the right to mine on otherwise protected territory; or (3) set up camps and illegally mine areas without government or tribal approval.⁶³

Mining, especially illegal mining, has grave effects on the Amazonian environment and a particularly significant impact on the Yanomami, whose religious beliefs and subsistence are inextricably tied to the land.⁶⁴ In addition to stoking land conflicts, illegal mining has polluted important water sources and damaged aquatic life and the flow of rivers far downstream.⁶⁵ Illegal prospectors make liberal use of mercury during the gold amalgamation process, polluting water and sediment and perhaps contributing to mercury bioaccumulation in fish at and near mining sites.⁶⁶ There is also a direct correlation between the presence of *garimpeiros* and the incidence of malaria among the Yanomami.⁶⁷ *Garimpeiro* mining techniques have negative, long-lasting effects on the environment,

59. AMAZONIA, *supra* note 47.

60. Gross & Tan, *supra* note 2.

61. AMAZONIA, *supra* note 47.

62. Talita Bedinelli, *Illegal Gold-Mining Presents New Threat for Brazil’s Isolated Tribes*, EL PAIS, Dec. 30, 2014, http://elpais.com/elpais/2014/12/30/inenglish/1419951095_909944.html.

63. *See generally* MERCIO P. GOMES, *THE INDIANS AND BRAZIL: THE INDIANS TODAY 177-78* (John W. Moon trans., Univ. Press of Fla., 3d ed. 2000).

64. *See* Gross & Tan, *supra* note 2.

65. *See* Kitco News, *Illegal Gold Miners in Brazil Destroying Amazon, Indigenous Tribes at Risk*, FORBES (Sept. 10, 2014), <http://www.forbes.com/sites/kitconews/2014/09/10/illegal-gold-miners-in-brazil-destroying-amazon-indigenous-tribes-at-risk/>.

66. *See id.*; Gross & Tan, *supra* note 2; Dan Collins, *Illegal Gold Mining Exposing Peru’s Indigenous Tribes to Mercury Poisoning*, GUARDIAN (Sept. 9, 2014), <http://www.theguardian.com/environment/2013/sep/09/peru-amazon-indigenous-tribe-gold-mining>. *But see* P.J. Lechler, et al., *Elevated mercury concentrations in soils, sediments, water and fish of the Madeira River basin, Brazilian Amazon: a function of natural enrichments?*, 260 SCI OF THE TOTAL ENV’T 87, 94 (2000) (“[I]t appears that mining may locally elevate Hg concentrations in river waters and sediment, but there is no evidence from this sampling campaign that regionally elevated Hg Levels in water, sediment, or fish of the Madeira River basin are derived from the downstream transport of Hg from mine sites.”).

67. *See* Gomez, *supra* note 10 at 195; Alisson Flavio Barbieri & Diana Oya Sawyer, *Heterogeneity of malaria prevalence in alluvial gold mining areas in Northern Mato Grosso State, Brazil* 23 CAD. SAUDE PUBLICA 2878, 2880 (2007).

including the creation of pools of still, shaded water, which are notorious mosquito vectors.

Despite the health and environmental effects of mining, Brazilian law has long recognized mining and favored *garimpeiros* and their cooperatives.⁶⁸ The Brazilian Constitution grants the federal government the power to establish areas and conditions for mining activities, including the right “to authorize, in Indian lands, the exploitation and use of hydric resources and the prospecting and mining of mineral resources.”⁶⁹ The Constitution encourages mining cooperatives and establishes a process by which *garimpeiros* can secure mining permits.⁷⁰ *Garimpeiros* are legally limited to mining a maximum of fifty hectares for five years, and unlike actual mining operators, their permits do not require mineral prospecting studies before mining in a specified area.⁷¹ As a result, it is entirely possible that a *garimpeiro* or a cooperative might begin mining in an area only to realize the area is not rich in minerals, at which point the *garimpeiro* or cooperative would simply move to another fifty-hectare area.⁷²

The 1995 amendments to the Constitution further defined permissible mining and reiterated that mining in “Indian” land is not illegal as long as it is conducted “with authorization or concession by the Union, in the national interest . . . in the manner set forth by law[.]”⁷³ The Constitution further requires that “[t]hose who exploit mineral resources shall be required to restore the degraded environment,” and states that “[t]he Brazilian Amazonian Rainforest, the Atlantic Rainforest . . . and the Coastal Zone are part of the national heritage and as such, their use shall be regulated so as to assure the preservation of the environment, including the use of natural resources, as set forth by law.”⁷⁴

The Brazilian Mining Code, in contrast, makes no reference to indigenous land, instead providing a process for exploration and exploitation, authorizations, concessions, and permits.⁷⁵ This is, at least in part, because the “mineral resources in the soil and subsoil belong to the Federal Union,” and the purpose of

68. See Miguel Antonio Cedraz Nery, *Preface to BRAZILIAN MINING CODE 5* (2008), available at http://www.institutowilliamfreire.org.br/brazilian_mining_code.pdf; see also C.F. art. 174 (Braz.) § 3 (“The state shall favour the organization of the placer-mining activity in cooperatives, taking into account the protection of the environment and the social-economic furthering of the placer-miners.”); C.F. art. 174 (Braz.) § 4 (“The cooperatives referred to in the preceding paragraph shall have priority in obtaining authorization or grant for prospecting and mining of placer resources and deposits in the areas where they are operating and in those established in accordance with article 21, XXV, as set forth by law.”)

69. C.F. art. 49 (Braz.).

70. See *id.* art. 176.

71. BARRETTO ET AL., *supra* note 51, at 114.

72. See *id.*

73. C.F. art. 176 (Braz.).

74. *Id.* art. 225. See Ricardo Ribeiro Rodrigues et al., *Tropical Rain Forest Regeneration in an Area Degraded by Mining in Mato Grosso State, Brazil* 190 *FOREST ECOLOGY & MGMT.* 323-33 (2004), for a discussion of Amazon forest regeneration following degradation caused by mining.

75. See generally C.MIN (Brazilian Mining Code), available at http://www.institutowilliamfreire.org.br/brazilian_mining_code.pdf.

the 1967 Mining Code was to address a “perceived need to encourage exploration and expand knowledge about the country’s mineral resources,” rather than protect indigenous land or the environment.⁷⁶ The Mining Code does, however, define “*garimpo*” mining as (1) “precarious mining methods”; (2) “mining in surface gold deposits”; and (3) “individual, self-employed labor.”⁷⁷ The Constitution’s mining provisions and the Mining Code are in conflict with not only the Constitution’s indigenous rights provisions, but also the rights of indigenous peoples under international law.

IV. INDIGENOUS PEOPLE IN BRAZILIAN LAW

Due to Eurocentric conceptualizations of “civilization” and the powerful economic and political interests that have always opposed the recognition of indigenous land rights, Brazilian law has generally failed to fully acknowledge the autonomy of indigenous populations.⁷⁸ Before the 1973 “Statute of the Indians” and the 1988 Brazilian Constitution, indigenous people were viewed as legal minors.⁷⁹ Although imperfect, the Statute of the Indians and the Constitution contained various provisions recognizing indigenous land and human rights, as well as the state’s duty to protect indigenous culture, customs, land, and languages.⁸⁰ The Brazilian Constitution states that lands traditionally occupied by the “Indians” are the “property of the union” and the union has the exclusive power to legislate on issues affecting the Indian population.⁸¹ Article 231 of the Constitution states that “[l]ands traditionally occupied by Indians are those on which they live on a permanent basis, those used for their productive activities, those indispensable to the preservation of the environmental resources necessary for their well-being and for their physical and cultural reproduction,” and it gives Indians “exclusive usufruct of the riches of the soil, the rivers and the lakes” on this traditional land.⁸²

The Statute of the Indians also contains numerous articles relating to the ownership, occupation, and exploitation of indigenous land.⁸³ Although the statute guaranteed various rights to indigenous peoples, it also complicated the land demarcation process.⁸⁴ Article 2 of the statute guarantees the rights of indigenous people to “possess permanently the lands they occupy, recognizing to

76. See Nery, *supra* note 68, at 5-6.

77. Barbieri & Sawyer, *supra* note 67, at 2879.

78. See Carvalho, *supra* note 17, at 464.

79. *Id.*

80. C.F. arts. 215, 225 (Braz.) (chapter VIII of the Constitution is entitled “Indians”).

81. *Id.* arts. 20, 22.

82. *Id.* art. 231. In other words, Indians may hunt, fish, and otherwise exploit the natural resources on traditional lands as long as the products of their activities are for their personal use. However, commercial purposes are regulated and restricted. See PAIXAO ET AL., *supra* note 52, at 144.

83. See generally Carvalho, *supra* note 17, at 465.

84. See *id.*

them the right to the exclusive usufruct of the natural resources and all useful things therein existing.”⁸⁵ The Statute also only permitted exploitation of the subsoil under Indian lands in cases of “great national interest,” defined as when there were “strategic minerals necessary for national security or development” involved.⁸⁶ The government has since passed a number of decrees implementing the Statute of the Indians, most of which have set the “administrative borders” of indigenous lands in the Amazon, although these borders still lack active protection and enforcement.⁸⁷

In spite of these seemingly generous provisions, it has been hard if not impossible for the Yanomami and other Indians to gain official recognition of the full expanse of their traditionally-occupied lands.⁸⁸ Demarcation is a legal, political, politicized, and administrative process, and even when tribes win recognition of their territory, FUNAI and the federal and state governments fail to fully “protect and ensure respect for all of their property.”⁸⁹ In 1996, the Brazilian Congress enacted Executive Decree 1775, which established a formal appeals process for land declared or demarcated as indigenous territory.⁹⁰ The Decree grants great weight to the interests and opinions of third parties, and is just one of many factors contributing to the futility of Article 67 of the 1988 Constitution, which stated that Brazil would conclude the demarcation of all indigenous lands within five years.⁹¹

Demarcation is an ongoing process and a continuing source of violence and controversy.⁹² It is not just *garimpeiros* and mining companies that have opposed or disregarded the demarcation of indigenous territory—ranchers, farmers, logging companies, and rubber tappers have also disputed demarcation.⁹³ In a rare

85. See Yanomami Case, *supra* note 28, at 2 (citing 6.001 art. 2 de 1973, Estatuta do Indio [Statute of the Indians] de 19 Dec. 1973).

86. See *id.* at 5. But see Albert, *supra* note 27, at 38 (describing the Statute of the Indians as “discriminatory” in that it defined indigenous peoples as “relatively incapable” and gave the government the right to remove indigenous people from their lands “for reasons of national security or for the construction of public works”). The statute is outdated in many ways, and the Constitution of 1988 addressed some of its weaknesses in terms of language and the expropriation of indigenous lands. See *generally id.* at 39.

87. See FOOD & AGRIC. ORG. OF THE UNITED NATIONS, LEGISLATIVE DATABASE OF THE FAO LEGAL OFFICE, BRAZIL: ACT No. 6001 ESTABLISHING THE NATIVE PEOPLE STATUTE, available at http://faolex.fao.org/cgi-bin/faolex.exe?database=faolex&search_type=query&table=result&query=ID:LEX-FAOC014188&format_name=ERALL&lang=eng (last visited March 4, 2015).

88. INTER-AM. COMM’N ON HUMAN RIGHTS, *supra* note 29.

89. C.F. art. 231 (Braz.). See *generally* Gross & Tan, *supra* note 2.

90. HUTCHINSON ET AL., DEMARCATION & REGISTRATION OF INDIGENOUS LANDS IN BRAZIL 14-15 (Dep’t of Geodesy & Geomatics Eng’g, Tech. Report No. 238, Univ. of N.B., Fredericton, N.B., Can.) (2006). The decree established a ninety-day window during which any interested parties could contest the legitimacy of demarcation. See Carvalho, *supra* note 17, at 473.

91. HUTCHINSON ET AL., *supra* note 90, at 15.

92. See *Brazilian Indians Clash outside Congress during protest of land demarcation bill*, ASSOCIATED PRESS, Dec. 16, 2014, available at <http://www.foxnews.com/world/2014/12/16/brazilian-indians-clash-with-police-outside-congress-during-protest-land/> (last visited Apr. 22, 2015).

93. See *generally* HUTCHINSON ET AL., *supra* note 90, at 22-29.

legal victory, the Yanomami prevailed over farmers in a land rights claim filed in federal court in Roraima in 2001.⁹⁴ The court applied provisions of the Constitution to uphold government demarcation of Yanomami land on the basis of traditional occupancy, and it ruled against the farmers asserting claims over the land.⁹⁵ The presence of farmers and others living and working, arguably by right, in Yanomami reserves is the direct result of the National Institute for Colonization and Agrarian Reform and other development programs the federal government launched in the 1970s and 1980s.⁹⁶

Another seemingly moot part of the Brazilian Constitution states that “mineral riches in Indian land may only be prospected and mined with the authorization of the National Congress, after hearing the communities involved, and the participation in the results of such mining shall be ensured to them, as set forth by law.”⁹⁷ Yanomami experiences with *garimpeiros* and others completely contradict the efficacy or enforceability of this article of the Constitution.⁹⁸ The Yanomami have no means of actually vetoing the exploitative activities of *garimpeiros*, and the piecemeal demarcation of Yanomami territory practically invites incursion.⁹⁹

V. INDIGENOUS PEOPLE IN INTERNATIONAL LAW

Brazil's various obligations under international law place an onus on the government to better respect and protect the rights of indigenous people. The unabated illegal mining in the Amazon violates the Yanomami right to life because their lives, culture, and religion are inextricably linked to the Amazon and its natural resources.¹⁰⁰ The various legal land statuses in the Amazon, the legal support and sanction of mining within protected and indigenous areas, and the lack of active protection of lands designated as indigenous territory violate a number of international laws and agreements. Brazil has ratified International Labor Organization Convention 169 (Indigenous and Tribal Peoples Convention), as well as the UN Declaration on the Rights of Indigenous Peoples.¹⁰¹ Brazil has acceded to the International Covenant for Economic Social and

94. S. James Anaya, *The Duty of States to Implement International Norms*, in *INDIGENOUS PEOPLES IN INTERNATIONAL LAW* 208 (Oxford Univ. Press, 2d ed. 2004).

95. *Id.*

96. See Boletim Yanomami, *Justica Federal em Roraima confirma carater indigena das terras do Ajarani Noticias*, n.20 (Sept. 21, 2001), <http://ti.socioambiental.org/noticia/3426>.

97. C.F. art. 231 (Braz.).

98. United Nations Declaration on the Rights of Indigenous Peoples, G.A. Res.61/295, U.N. Doc., A/RES/61/295 (Sept. 13, 2007).

99. See HUTCHINSON ET AL., *supra* note 90, at 32.

100. Gomez, *supra* note 10, at 187; UNITED NATIONS, *United Nations Bibliographic Information System*, <http://unbisnet.un.org:8080/ipac20/ipac.jsp?profile=voting&index=.VM&term=ares61295> (last visited Apr. 22, 2015).

101. See *Ratification of C169—Indigenous and Tribal Peoples Convention, 1989 (no. 169)*, INT'L LABOR ORG., (Sept. 5, 1991), http://www.ilo.org/dyn/normlex/en/f?p=1000:11300:0::NO:11300:P11300_INSTRUMENT_ID:312314.

Cultural Rights; the Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights (“ESC Protocol”); and the International Covenant for Civil and Political Rights (“ICCPR”).¹⁰² In addition, Brazil voted in favor of the Universal Declaration of Human Rights and recognizes various human and indigenous rights in its Constitution.¹⁰³

Long before the demarcation of Yanomami territory and the passage of the modern Brazilian Constitution, the Yanomami filed a petition against Brazil with the Inter-American Commission on Human Rights.¹⁰⁴ The Commission found that Brazil violated the American Declaration of the Rights and Duties of Man because of its treatment of the Yanomami and the de facto lack of recognition of their land rights.¹⁰⁵ The Yanomami claimed the

massive penetration of outsiders . . . had devastating physical and psychological consequences . . . it ha[d] caused the break-up of their age-old social organization; it ha[d] introduced prostitution among the women, something that was unknown; and it ha[d] resulted in many deaths caused by epidemics of influenza, tuberculosis, measles, venereal diseases and others.¹⁰⁶

The Commission cited the Brazilian Constitution and the Statute of the Indians, which granted protection to “Indians’ lands” even though the federal government had yet to properly demarcate them.¹⁰⁷ The Commission found that the violations of the American Declaration were grounded in (1) the construction of the transamazon highway through Yanomami territory; (2) the failure to demarcate Yanomami land; (3) the authorization of the exploitation of Yanomami land; (4) allowing the penetration of Yanomami territory without providing medical care to those who contracted contagious diseases; and (5) the general displacement of the Yanomami from their ancestral lands.¹⁰⁸

The Commission then looked beyond the American Declaration to the ICCPR, which recognizes ethnic minorities’ rights to special protection.¹⁰⁹ The Commis-

102. *Status on International Covenant on Economic, Social and Cultural Rights*, UNITED NATIONS TREATY COLLECTION, https://treaties.un.org/pages/viewdetails.aspx?chapter=4&lang=en&mtdsg_no=iv-3&src=treaty (Apr. 22, 2015); ORG. AM. STATES, DEP’T OF INT’L LAW, A-52: ADDITIONAL PROTOCOL TO THE AMERICAN CONVENTION ON HUMAN RIGHTS IN THE AREA OF ECONOMIC, SOCIAL, AND CULTURAL RIGHTS, SIGNATORIES AND RATIFICATIONS (1988), <http://www.oas.org/juridico/english/sigs/a-52.html>.

103. *Annex: Vote of the General Assembly to Adopt the Universal Declaration of Human Rights*, GRAND COUNSEL OF THE CREES, <http://www.gcc.ca/pdf/INT00000019b.pdf> (last visited Apr. 22, 2015); *see also* C.F. ch. I (Braz.) (entitled “Individual Collective Rights and Duties”); C.F. art. 6 (Braz.) (stating “Education, health, food, work, housing, leisure, security, social security, protection of motherhood and childhood, and assistance to the destitute are social rights, as set forth by this Constitution”).

104. *See generally* Yanomami Case, *supra* note 28, at 8.

105. *Id.*

106. *Id.* at 3.

107. *Id.* at 4.

108. *Id.* at 5.

109. *Id.* at 6 (Article 27 of the ICCPR states: “In those States in which ethnic, religious, or linguistic minorities exist, persons belonging to such minorities shall not be denied the right in community with other

sion found that Brazil failed to undertake timely and effective measures to protect the Yanomami from displacement, disease, and the violent acts of private individuals. The Commission declared that Brazil's lack of protective measures amounted to an infringement on the Yanomami's right to life, liberty, and personal security, as well as the rights to residence and movement, and health and well-being, in violation of Articles I, VIII, and XI, respectively.¹¹⁰ The Commission recommended that the government take preventative and curative health measures to protect the Yanomami, and to consult them when designing educational, medical, and social integration programs.¹¹¹ Although the IACHR decided in favor of the Yanomami, the Brazilian government did not take measures to halt or reverse the environmental damage that had already occurred.¹¹²

VI. ENVIRONMENTAL RIGHTS AS INDIGENOUS RIGHTS

The continuing presence of *garimpeiros* on indigenous land and the attendant health and environmental harms may provide cause for another IACHR petition; considering the 2001 Roraima federal court decision, the Yanomami might prevail in a domestic court as well. The Yanomami have yet to bring a case or petition based on an environmental rights theory, even though the right to a healthy environment is found in various international treaties and the Brazilian Constitution, which states that all people have a right to "an ecologically balanced environment, which is . . . essential to a healthy quality of life, and both the Government and the community shall have the duty to defend and preserve it for present and future generations."¹¹³ In addition, the Amazon is "part of the national patrimony," and shall be used under conditions that ensure the preservation of its environment.¹¹⁴ The Constitution also states that it is incumbent upon the government to protect flora and fauna; define territorial spaces and components to receive special protection; and control the production, techniques, or substances that present risks to life, quality of life, and the environment.¹¹⁵ The Environment chapter of the Constitution also references mining, stating: "Those who exploit mineral resources shall be required to restore the degraded environment . . ."¹¹⁶ Although this language would seem highly protective and applicable to Yanomami land, it is far from the reality on the ground in the Amazon.

The Yanomami can also find support for their environmental rights beyond the

members of their group, to enjoy their own culture, to profess and practice their own religion, or to use their own language.").

110. *Id.* at 8.

111. *Id.*

112. LINDA HAJJAR LEIB, HUMAN RIGHTS AND THE ENVIRONMENT: PHILOSOPHICAL, THEORETICAL AND LEGAL PERSPECTIVES 80 (2011).

113. C.F. art. 225 (Braz.).

114. *Id.*

115. *Id.*

116. *Id.*

Brazilian Constitution. The ESC Protocol states that “[e]veryone shall have the right to live in a healthy environment and to have access to basic public services.”¹¹⁷ The UN Human Rights Committee has interpreted ICCPR Article 27 to embrace the right to practice and maintain culture, recognizing that the protection of natural resources can ensure the survival and development of the indigenous peoples concerned.¹¹⁸ ILO Convention No. 169 requires states to take measures to safeguard the environment of indigenous peoples.¹¹⁹ Article 7 of that same convention states that governments shall ensure they carry out studies of planned development activities “in cooperation with the peoples concerned to assess the social, spiritual, cultural and environmental impact.”¹²⁰ This Article is directly applicable to the Yanomami situation—the tribe has not been afforded the opportunity to “participate in the formulation, implementation, and evaluation of plans and programmes for national and regional development which may affect them directly[.]”¹²¹ But the government cannot include the Yanomami in decisionmaking over mining it does not officially authorize.¹²²

The UN Declaration on the Rights of Indigenous Peoples also contains many provisions linking human rights to environmental conditions.¹²³ Article 29, for example, states: “Indigenous peoples have the right to the conservation and protection of the environment and the productive capacity of their lands or territories or resources. States shall establish and implement assistance programmes for indigenous peoples for such conservation and protection, without discrimination.” While FUNAI and its programs would seem to qualify as an “assistance program” under Article 29, FUNAI’s ability to advocate on behalf of indigenous people is limited by its relative lack of funding and political clout as compared to other governmental agencies.¹²⁴ Article 29 also requires that states “take effective measures to ensure that no storage or disposal of hazardous materials shall take place in the lands or territories of indigenous peoples without

117. Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social, and Cultural Rights, art. 11, Nov. 11, 1988, O.A.S.T.S. No. 69.

118. Dinah Shelton, *The Environmental Jurisprudence of International Human Rights Tribunals*, in LINKING HUMAN RIGHTS AND THE ENVIRONMENT 1, 19-20 (Romina Picolotti & Jorge Dnaiel Taillant eds., 2003).

119. International Labour Organization [ILO] Convention concerning Indigenous and Tribal Peoples in Independent Countries, June 27, 1989, http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312314.

120. *Id.*

121. *Id.*; see also Albert, *supra* note 27, at 43 (“By 1987, 37 per cent of the Yanomami territory had already been claimed: 27 permits and 363 applications for authorization to prospect for minerals had already been registered at the National Department of Mineral Production . . .”).

122. See BARRETTO ET AL., *supra* note 51, at 113.

123. United Nations Declaration of Rights of Indigenous Peoples, G.A. Res. 61/295, U.N. Doc A/61/L.67 (Sept. 13, 2007).

124. Stephen, Wright & Robin Schwartzman, *Toward A New Indian Policy in Brazil*, CULTURAL SURVIVAL (Mar. 1, 2015, 11:39 PM), <http://www.culturalsurvival.org/ourpublications/csq/article/toward-a-new-indian-policy-brazil>.

their free, prior and informed consent.”¹²⁵ This provision applies to all of the leftover mercury found throughout the river basins and manmade reservoirs near *garimpeiro* mining sites.¹²⁶

The Yanomami also have a claim based on Principle 22 of the Rio Declaration, which counsels states to “recognize and duly support” the identity, culture, and interests of indigenous people and “enable their effective participation in the achievement of sustainable development.”¹²⁷ The Yanomami can also cite the Brazilian government’s 2012 “Decision on Illegal Mining in the Amazon Basin” in a potential IACHR petition. This agreement among members of the Amazon Cooperation Treaty Organization (“ACTO”) recognized the proliferation of illegal mining activity throughout the Amazon and its deleterious social and environmental effects.¹²⁸ The ministers of environment of Brazil, Bolivia, Colombia, Ecuador, Guyana, Peru, Suriname and Venezuela resolved to use ACTO to combine efforts to control illegal mining in the Amazon basin and form a specialized working group to define a common strategy and purpose.¹²⁹ As of 2014, ACTO had drafted a work plan that included multiple meetings of the “Illegal Mining Expert Group.”¹³⁰

VII. POTENTIAL REMEDIES

Considering the continuing threats to Yanomami land and the lack of recognition of their environmental rights, tribal leaders and advocates should explore the possibility of petitioning the IACHR once again. The IACHR has said “governments must regulate industrial and other activities that potentially could result in environmental conditions so detrimental that they create risks to health or life,” so it seems the Commission or the Court would be receptive to a health claim based on environmental degradation.¹³¹ The IACHR has gone so far as to say, “[w]here the right to life . . . has been infringed upon by environmental contamination, the Government is obliged to respond with appropriate measures of investigation and redress.”¹³² The Maya tribe of Belize prevailed in a case of this

125. G.A. Res. 61/295, *supra* note 123, at Art. 29 ¶ 2.

126. Olaf Malm, *Gold Mining as a Source of Mercury Exposure in the Brazilian Amazon*, 77 ENVTL. RESEARCH 73, 73 (1998).

127. United Nations Conference on Environment and Development, Rio de Janeiro, Braz., June 3-14, 1992, *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/26/Rev.1 (Vol. I), Annex I, princ. 22 (Aug. 12, 1992).

128. Amazon Cooperation Treaty Organization [ACTO], *Appendix to the Lima Declaration decision on Illegal Mining in the Amazon Basin* (Mar. 21, 2012), http://otca.info/portal/admin/_upload/documentos/ANEXO_DECLARACION_LIMA_ING.pdf.

129. *See id.*

130. ACTO, *Work Plan 2014: Coordinating Office for Environment*, at 22, http://www.otca.info/portal/admin/_upload/plano_trabalho/431-WORK.PLAN_2014.pdf.

131. Dinah Shelton, *Environmental Rights and Brazil's Obligations in the Inter-American Human Rights System*, 40 GEO. WASH. INT'L L. REV. 733, 752 (2009) (citing Report on the Situation of Human Rights in Ecuador, *infra* note 132, at 92.).

132. Report on the Situation of Human Rights in Ecuador, Inter-Am. Comm'n H.R., OEA/Ser.L/V/II.96, doc. 10 rev. 1, 92 (1997).

kind in 2004, when the Commission found Belize responsible for violating multiple rights enshrined in the American Declaration of Human Rights after Belize granted logging and oil concessions to companies on Maya-occupied land without effective Mayan consultation and informed consent.¹³³ The concessions resulted in significant environmental damage and the Commission recommended that the state adopt new laws to delimit, demarcate, and title Maya territory, recognize Maya communal property rights, and repair the environmental damage.¹³⁴ The Maya case parallels the struggles of the Yanomami.

The Yanomami can also advocate domestically for a more transparent and inclusive concessions process. In 2006, the Brazilian government instituted a policy tying forest conservation to rural development through a system of land zoning, titling, and concessions for industrial timber production in an effort to reduce and perhaps even eliminate illegal logging.¹³⁵ Although not ideal, standardizing and legalizing small-scale mining, even within certain parts of Yanomami territory, would be preferable to the current haphazard and dangerous situation. An ideal concessions process would involve many representatives from the Yanomami community and would ensure that no officially sanctioned mining took place within Yanomami territory without the free and prior informed consent of the tribe.

There is also no indication that the Yanomami receive any remuneration from *garimpeiros* or cooperatives despite their constant presence in Yanomami territory and the environmental destruction they cause. Changing this particular factor will be especially complicated as it will involve advocating for an amendment or reinterpretation of the Brazilian Constitution; Article 176 of the Constitution states that only the “owner of the soil” is ensured “participation in the results” of the mining operation, but the Brazilian government is the owner of the soil and subsoil in Indian lands and national parks, not the tribes who have traditionally occupied those lands.¹³⁶

CONCLUSION

Despite the human, land, and indigenous rights outlined in the Brazilian Constitution, the Statute of the Indians, and various international declarations and agreements, the Yanomami’s survival as a tribe on its traditional land in the

133. Maya Indigenous Community of the Toledo District (Belize), Case 12.053, Inter-Am. Comm’n H.R., Report No. 40/04, OEA/Ser.L/V/II.122, doc. 5 rev. 1 ¶ 194 (2004), <http://www.cidh.org/annualrep/2004eng/Belize.12053eng.htm>.

134. *Id.* ¶ 197. The Commission found Belize to be in violation of Articles II, XVIII, and XXIII of the American Declaration of Rights and Duties of Man. *Id.* ¶ 5.

135. Mark D. Schulze, et al., *Certification, concessions, and biodiversity in the Brazilian Amazon*, 51 ETFRN NEWS 83, 83 (Sept. 2010), <http://www.etfrn.org/index.php?id=43> (follow “3.6 Certification, concessions and biodiversity in the Brazilian Amazon” hyperlink).

136. See C.F. art. 176 (Braz.); Nery, *supra* note 68, at 5-6. *But see* C.F. art. 231 (Braz.) (giving the Indians “exclusive usufruct of the riches of the soil, the rivers and the lakes”).

Amazon remains at risk.¹³⁷ Their continuing vulnerability is due to a number of factors including conflicting laws, the isolation of the tribe, illegal mining activity, the private mining and farming interests that advocate against the demarcation of indigenous lands, and the lack of sufficient funds appropriated for indigenous land protection causes.¹³⁸ The Brazilian government has tried to simultaneously appease its indigenous population (and their allies) and mining interests since 1967. While the government aims to comply with international laws regarding the rights of indigenous peoples, it is also committed to “sustainably” developing the very land on which the indigenous peoples have traditionally lived. Sustainable development in certain parts of the Amazon is a laudable goal but is ultimately inapposite to the illegal mining operations on the ground. Over the past forty years, illegal miners have haphazardly and irreversibly altered Yanomami territory and the Yanomami way of life. As if the specters of contagious disease, violence, and mercury poisoning were not enough, the Yanomami have also struggled to overcome land conflicts and the loss of portions of their traditional territory. Imperiled tribes like the Yanomami should utilize all available legal avenues to preserve the environment and their land rights, especially the Inter-American Commission on Human Rights and the Inter-American Court of Human Rights, which have both proven sympathetic to indigenous petitions in the past.¹³⁹ In the words of the Yanomami’s foremost shaman-activist, Davi Kopenawa Yanomami:

The Earth cannot be split apart as if the forest were just a leftover part. With leftover trees and leftover rivers, leftover game, fish and humans who live there, its breath of life will become too short. That is why we are worried. We shamans simply say we are protecting nature as a whole thing. We defend the forests’ trees, mountains and rivers, its fish, game, spirits and human inhabitants.¹⁴⁰

The sooner Brazilian law and its enforcement better reflect the rights and abilities of indigenous people to live in, protect, and preserve the Amazon in its natural state, the more “sustainable” Amazonian development will be.

137. See Gross & Tan, *supra* note 2.

138. See *id.*; see also Fabiana de Oliveira Godinho, *The United Nations Declaration on the Rights of Indigenous Peoples and the Protection of Indigenous Rights in Brazil*, 12 MAX PLANCK Y.B. OF UNITED NATIONS L., 247, 274 (2008).

139. See INTER-AM. COMM’N ON HUMAN RIGHTS, *supra* note 29; see also Yanomami Case, *supra* note 28. In *Saramaka People v. Suriname*, the Inter-American Court of Human Rights recognized the Saramaka peoples’ rights to the enjoyment of communal property, collective title, free prior informed consent, judicial protection, and awarded \$600,000 for the environmental damage and destruction of their traditional lands and resources. See *Saramaka People v. Suriname*, Preliminary Objections, Merits, Reparations, and Costs, Inter-Am. Ct. H.R. (ser C.) No. 172 ¶¶ 201, 214 (Nov. 28, 2007) available at http://www.corteidh.or.cr/docs/casos/articulos/seriec_172_ing.pdf.

140. John Vidal, ‘*People in the west live squeezed together, frenzied as wasps in the nest,*’ GUARDIAN (Dec. 30, 2014), <http://www.theguardian.com/global-development/2014/dec/30/western-living-yanomami-shaman-brazil>.