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## The Amazon: Dirty dams, Dirty Politics and the Myth of Clean Energy<sup>1</sup>

**Brent Millikan**

International Rivers

A growing trend in Brazil and other countries is to portray hydroelectric dams as a source of "clean energy" critical to mitigating greenhouse gas emissions, while powering a "green economy" (Hurwitz 2012). Despite the discourse of "sustainable development", most policy debates so far have ignored the social and environmental footprint of existing hydroelectric projects and the implications of an unprecedented wave of dam building worldwide. Similarly neglected are fundamental questions about the unfulfilled promises of mega-dam projects as engines of "sustained growth," the vulnerability of dams in relation to global climate change and the opportunity costs of the current dam boom in relation to alternative energy strategies (IR 2011; Moreira and Millikan 2012). A look at the inner workings of the contemporary dam industry in the Brazilian Amazon provides an opportunity to analyze contradictions between discourse and reality that should be informing debates about "clean energy" and the "green economy."

Currently, the rivers of the Amazon basin are being targeted for construction of an unprecedented number of hydroelectric dams. Dozens of large dams are planned for construction in the Brazilian Amazon over the next 20 years (EPE 2012). Several mega-dams are proceeding rapidly, such as Santo Antônio and Jirau (in initial phase of operations) on the Madeira River, and Belo Monte on the Xingu River (in construction). The Tapajós basin, located to the west of the Xingu, is currently the main focus of the Brazilian government's ambitious dam construction plans for the Amazon. Projects include three large dams on the main stem of the Tapajós River; along its main tributaries, four dams are slated for construction on the Jamaxim River, five dams in the Teles Pires River (two of which are already under construction) and 17 large dams are proposed for the Juruena River (in addition to over 80 small and medium hydroprojects – PCHs). In neighboring Peru and Bolivia, new dam plans are underway, largely as a result of political pressure and economic incentives from the Brazilian government.

The devastating social and environmental consequences of new dam projects in the Amazon are becoming glaringly apparent: e.g. destruction of traditional communities and livelihoods, depletion of fish stocks, uncontrolled migration, land speculation, deforestation, child prostitution, urban violence and overstretched services in health, education, and sanitation. All these phenomena, caused or intensified by an unprecedented wave of new hydroelectric projects, are increasingly part of the contemporary Amazonian landscape.<sup>7</sup>

Meanwhile, the Brazilian government and its dam industry partners insist that Amazonian dams are a fundamental source of "cheap and clean energy," ignoring critiques by affected communities, social movements, indigenous peoples, religious leaders, human rights and environmental NGOs, and the scientific community. What explains this growing "dam fever" in the Amazon despite the glaring contradictions between rhetoric and reality?

First, it is useful to note that today's dam-building industry in Brazil is based on a "triple alliance" between the federal government (especially the Ministry of Mines and Energy and its parastatal energy conglomerate Eletrobras), political patronage groups that control the Ministry of Mines and Energy (led by Senator and ex-President José Sarney and his political

party PMDB) and private multinational construction companies (such as Odebrecht, Camargo Correa, Andrade Gutierrez, and GDF Suez). The glue that keeps this alliance together is money. All members stand to benefit from the lucrative potential of mega-dam projects, which involve the effective privatization of rivers, the externalization of the human and environmental costs of dams, and privileged access to public financing through subsidized loans (especially from the Brazilian National Development Bank - BNDES), as well as generous fiscal incentives. The potential for carbon credits (ignoring the significant greenhouse gas emissions typically associated with dam construction in the tropics<sup>2</sup>) is “the icing on the cake.” Moreover, the dam industry is often closely linked to political and economic interests associated with the opening of industrial waterways (*hidrovias*), energy-intensive mining, logging, and export-oriented agribusiness such as soybean production.

The enormous potential for corruption involving large infrastructure projects, combined with the fact that dam construction companies are among the main contributors to electoral campaigns, furthers the strength of this “triple alliance”. When Luiz Inácio Lula da Silva was elected President of Brazil in 2002, there were great hopes that he would fulfill campaign promises to fight corruption and bring “ethics into politics.” Once in office, Lula and his party, the PT, proceeded to form political alliances with many of Brazil's most backward regional oligarchs. This fundamental political shift, combined with the federal government’s manipulation of trade unions and social movements with which the PT maintained historical alliances, have reinforced the dam industry’s juggernaut and other disturbing trends within Brazilian society in an unprecedented way.

The current dam frenzy in Brazil is closely associated with the manipulation of public policies at various levels. First, a pronounced bias toward large dams in national energy policy in Brazil is guaranteed by the absence of public debate and a lack of transparency around plans drawn up by the Ministry of Mines and Energy. Official neglect of such issues as demand management, energy efficiency, and truly renewable sources of generation such as wind and solar are a striking trait of centralized energy planning, often characterized as a “black box” in Brazil (Moreira and Millikan 2012).

River basin inventory studies carried out by Eletrobras and its private-sector partners – aimed exclusively at identifying cascades of dam sites to maximize electricity generation – provide the basis for political decisions on the construction of new projects. Prior to official approval by the National Electrical Energy Agency (ANEEL), inventory studies involve neither public debate nor input from environmental agencies, despite frequent clashes with policies regarding river basin management, protected areas and the rights of indigenous peoples and other local populations.

After dam projects have been politically defined, the environmental licensing process is a largely a formality that precludes any effective vetting. In Brazil, environmental impact assessments (EIAs) carried out by dam proponents typically underestimate and externalize social and environmental costs, such as consequences for the livelihoods of indigenous peoples and other local populations, impacts on biodiversity and greenhouse gas emissions. When technical staff of federal agencies responsible for environmental protection (IBAMA) and indigenous peoples and their territories (FUNAI) have raised questions about the shortcomings of EIAs, their voices have typically been muted by political pressures from the highest levels of the Brazilian government.

In the environmental licensing process, legally-mandated public consultations have been reduced to essentially theatrical exercises, with no impact whatsoever on the licensing process. Moreover, national legislation and international agreements, such as ILO Convention 169, regarding free, prior and informed consultations and consent (FPIC) with indigenous and tribal peoples are simply ignored.

Increasingly, the expansion of the dam-building frontier and associated activities (mining, agribusiness) in the Brazilian Amazon is on a collision course with legally protected areas. The strategy of the political elite has been to either eliminate their protected status altogether or loosen restrictions to exploitation of their resources. For example, in May 2012, the Brazilian Congress approved Provisional Law (*medida provisória*) no. 558, submitted by President Dilma Rousseff, that illegally reduced more than 75,000 hectares in protected areas along the Tapajos River to open the way for two planned mega-dams: São Luiz do Tapajós and Jatobá. Various legislative proposals aimed at halting new demarcations of indigenous lands and opening up existing demarcated areas to hydro and mining exploitation

are currently under review in the Brazilian Congress, championed by a conservative coalition known as the *ruralistas*.

Another hallmark of the contemporary dam industry in Brazil has been the federal government's manipulation of the judiciary system. Restraining orders issued by lower-level federal judges in favor of lawsuits regarding gross violations of human rights and environmental legislation on dam projects have been overturned through political intervention by the President's office in higher-level courts, using a legal artifice known as "*Suspensão de Segurança*" that dates back to the military dictatorship. This instrument invokes supposed threats to 'national security' if all planned dam projects are not completed.<sup>8</sup> Such manipulation of the judiciary has been exacerbated by bureaucratic lethargy in judging lawsuits regarding illegalities in the planning, licensing and construction of dam projects.

Similarly, manipulation of public financial institutions to ensure the bankrolling of high-risk dam projects has also become a hallmark of the Brazilian dam industry. Taxpayer-funded public banks, such as the Brazilian National Development Bank (BNDES), Bank of Brazil, and Bank of Amazonia (BASA), as well as parastatal pension funds (especially Petros, Previ, and Funcef) have all been pressured to bankroll large dam projects such as Belo Monte, often in violation of even minimal social and environmental standards, such as Central Bank regulations concerning prior analysis of economic and environmental risks of projects (Rojas and Millikan 2014).

When opposition to dam projects has arisen among indigenous peoples and other local populations, the response of the federal government has increasingly been to attempt to stigmatize and criminalize grassroots leaders, while deploying the Federal Police and National Guard as private security apparatus at dam construction sites. In the case of the Tapajos dams, federal security forces have been used to escort teams carrying out technical studies for dams in the territories of indigenous peoples and other traditional populations. Within the government, dissenting voices have been met with various forms of political persecution.

Political retaliation has not been limited to the national level. For example, when the Inter-American Commission on Human Rights issued precautionary measures in 2011 regarding the need for prior consultations with indigenous peoples threatened by the Belo Monte project, as well as other urgent measures to protect isolated groups in the Xingu, the response of the Brazilian government was to attempt to demoralize the commission, while threatening to pull funding from the OAS.

Such strong-arming tactics help explain significant investments by the Brazilian government in propaganda campaigns, aimed at misleading public opinion about the consequences of mega-dam projects in the Amazon. One Orwellian video widely displayed in Brazilian airports at the height of opposition to Belo Monte cheerfully announced that the mega-dam project would have no impacts on indigenous communities living along the 100-km swath of the Xingu River, known as "Big Bend," despite the diversion of 80% of the river's flow upstream<sup>3</sup>. Clearly, a lack of political autonomy vis-à-vis the central government and a paucity of investigative reporting within the mainstream Brazilian media have facilitated the dam industry's green washing campaigns.

In short, the Brazilian dam boom in the Amazon is a striking example of a tremendous gap between discourse and practice that should be informing debates about "clean energy" and the "green economy." Such debates should consider the true costs of the current *modus operandi* of the dam industry in Brazil and other countries, in terms of undermining of basic human rights, ecosystem health, and democratic decision-making.

What is also disconcerting is that, under the leadership of Eletrobras, large construction companies such as Odebrecht and BNDES, the current model of destructive dam construction epitomized by Belo Monte is being reproduced in other countries of the Amazon and elsewhere in Latin America, as well as in African nations such as Mozambique and Angola. Such initiatives are given legitimacy and direct support from institutions such as the International Energy Agency (IEA), the World Bank and the Clean Development Mechanism (CDM) under the Kyoto Protocol (IEA and MME 2012; Bosshard 2013).

Clearly, there can be no "sustainable development" when development disrespects human rights, disrupts healthy ecosystems, fosters political and financial corruption and undermines democratic institutions. Slowing the juggernaut of the dam industry in the Amazon and the powerful interests it represents will require a radical democratization of

public policy-making (especially with regard to the energy sector), true corporate accountability, and vastly increased mobilization in Brazil and neighboring countries to support the rights and livelihoods of dam-threatened and dam-affected communities.

## Notes

<sup>1</sup> An earlier version of this article, with the same title, was published in *World Rivers Review*, *International Rivers*, vol. 27, no. 2, June 2012. <http://www.internationalrivers.org/world-rivers-review/world-rivers-review-june-2012-focus-on-rio-20>

<sup>2</sup> See the extensive literature on this subject by Philip M. Fearnside of Brazil's National Institute for Amazonian Research (INPA): <http://philip.inpa.gov.br/>

<sup>3</sup> See a parody of the official NESA video, produced by independent filmmaker Todd Southgate for the Movimento Xingu Vivo:

<https://www.youtube.com/watch?v=q7c6POeQV8><https://www.youtube.com/watch?v=q7c6POeQV8>

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