

Dodgy Deal: **Belo Monte dam project** Brazil



update

This dodgy deal is updated regularly
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banktrack contact

Zachary Hurwitz, International Rivers, USA
Christian Poirier, Amazon Watch, USA

Oriana Rey Tanaka Santos, Amigos de la Terra Amazonia Brasileira

Description

The Belo Monte Dam on the Xingu River is currently the largest dam project under consideration anywhere on the planet, and would be the world's third largest in installed generating capacity if built. Belo Monte is highly complex – the project includes two dams, one artificial canal, two reservoirs (one on dry land), and an extensive system of dikes, some big enough to qualify themselves as large dams.

To build Belo Monte, more earth would have to be dug than was moved to build the Panama Canal. The sheer enormity of the project means that an area of more than 1,500 square kilometers would be devastated, resulting in the displacement of 20,000 – 40,000 people, and grave impacts to the land and livelihood of 800 indigenous people and thousands of riverine and urban families.

Belo Monte is one of the world's most controversial dams; indigenous peoples and social movements in the region have fought its construction for more than 20 years. In July 2009, a delegation of groups opposing the dam met with Brazil's President Lula, who said he would review the project and promised "no one is going to shove this project down anyone's throats." Yet the government is pushing through the project at all costs, in violation of Brazilian law and despite the strong opposition of indigenous groups.

brief history

Originally, five huge dams were planned for the Xingu basin, which would have flooded 18,000 sq km of the rainforest, generating over 20,000 MW of electricity. The upstream dams would have stored water for Belo Monte (then called Kararaô), making it more effective in generating electricity. They would have also flooded indigenous reserves and protected areas. That proposal was defeated in 1989 after huge opposition from the Kayapo Indians and a worldwide movement spearheaded by pop star Sting rose to defend the Kayapo's land and rights.

The Belo Monte plan was launched in 2002. Under the new engineering design for the Belo Monte complex, more than 80% of the flow of the Xingu would be diverted down two huge artificial canals - each 500 meters wide - to the powerhouse, leaving the 100-km rocky stretch downstream known as the Xingu's "Big Bend" high and dry. The powerhouse would have 11,233 MW of installed generating capacity, but would generate an average of only 4,500 MW. Belo Monte would operate at peak capacity for only a couple of months out of the year, and during the four to six-month-long low-water season on the Xingu, it would generate as little as 1000 MW of electricity.

The project's extremely high cost and inefficiency and the river's large seasonal variations in flow have led many to believe that after completing Belo Monte, Brazil will build other dams upstream with greater storage capacity to guarantee there will be enough water for Belo Monte to generate electricity year-round.

what must happen

Banks must not finance Belo Monte. The financial viability of the project is too shaky; the lack of private investment signals a high risk on returns that the government is only able to absorb by pushing down interest rates and utilizing funds meant to pay down the public debt, such as the Fundo de Amparo ao Trabalhador (FAT) and public pension funds. Drawing from these funds will cause considerable social unrest amongst the Brazilian public, who will be left to judge the risk involved in trading off the availability of public funds for granting energy subsidies to electro-intensive industrial sectors like mining and construction.

Meanwhile, estimates of the total cost of Belo Monte have reached as high as R\$44 billion (USD \$25 billion) due to increasing environmental and social costs involved in the project.

The financial risk involved in Belo Monte, the meager amount of energy produced throughout the year (only 39% of the dam's capacity without building further dams upstream), and the social risk involved in financing a project that has gained international notoriety for its impacts on indigenous people, are reasons enough for banks to refrain from financing the project.

Social impact

Indigenous people

Belo Monte would directly affect indigenous communities living along what is known as the Xingu's "Big Bend." About 800 indigenous people from groups live in this region. José Carlos Arara, who met with President Lula in July to voice his concerns, told the President "Our ancestors are there land with the story of our ancestors to our children. We don't want to fight, but we are ready to fight for our land if we are threatened. We want to

A panel of 40 independent experts that analyzed the project's environmental impact assessment (EIA) found that, since the Big Bend would be decimated, with some species found only in the Big Bend likely to become extinct. The drying of the Big Bend would make it impossible for indigenous staples. The lowering of the water table would destroy the agricultural production of the region, affecting indigenous and non-indigenous farmers, and would not survive. The formation of small, stagnant pools of water among the rocks of the Big Bend would be an ideal environment for proliferation

Communities upstream, including the Kayapó Indians, would suffer the loss of migratory fish species, which are a crucial part of their diet. The Ka... the government proceeds.

Riverine and urban people

Officially 19,000 people would be displaced for Belo Monte, most in the city of Altamira, but the independent review of the project found the real... Contrary to what would happen in the Big Bend, Altamira's water table would become saturated, leading to flooding throughout the city during the search of work. Riverine families who have lived off of fishing and smallscale agriculture on the Xingu for decades would be forced to relocate to most of them low-paying.

Given the limited infrastructure in the towns and villages in the region, it is expected that the vast majority of the migrants who do not find work... deforestation and impacts on fish and wildlife, in addition to the invasion of indigenous lands.

Environment

Biodiversity

Belo Monte would affect biodiversity over an extensive area of the central Amazon. The rich flooded forests of the Big Bend and middle Xingu would... migratory fish species, it would seriously affect aquatic and land fauna, including endangered species such as the white-cheeked spider monkey... would lose their breeding grounds.

Climate change

Belo Monte is being proposed as a renewable energy project and an important part of the country's commitment to reduce emissions by 38% by 20... significant sources of greenhouse gas emissions due to decomposing vegetation.

According to Philip Fearnside, Brazil's foremost expert on reservoir emissions, Belo Monte is unlikely to be a standalone project due to its low gene... Babaquara Dam – a much larger storage dam – will be built upstream. According to Fearnside, during the first 10 years of operation, the Bab... higher than an equivalent fossil-fuel plant. After 20 years, the project would still have 2.5 times the emissions of a fossil-fuel plant. Even discounted... be seen as clean.

Human rights

The indigenous people of the Xingu Basin claim that they were never adequately consulted about the project, in violation of their Brazilian constitu... international law. Opponents of the project have received death threats and have been subjected to intimidation.

Other issues

Transmission lines would be constructed to connect Belo Monte with the central grid, meaning that the electricity from Belo Monte could go n... aluminum, iron, and other smelting operations in the Amazon such as Juriti, Carajas, and Paragominas, owned by Alcoa and Vale. The energy would... consumes 28.6% of all electricity in the country, mainly in São Paulo and Minas Gerais.

Alternatives

Considering Belo Monte's astronomical cost, even without accounting for its social and environmental impacts, Brazil would be well-advised to give... published in 2007 showed that by 2020, Brazil could cut the expected demand for electricity by 40% through investments in energy efficiency. The... This would result in national electricity savings of up to \$19 billion by 2020, and reduce installed capacity by 78,000 MW. WWF-Brazil's "PowerS... generation from renewable sources such as biomass, wind, solar and small hydro, avoiding the need to build dams in the Amazon. These renewable... country by 2020.

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applicable policies

- The [Green Protocol](#) applicable to public banks, of which BNDES is a signatory
- The [Green Protocol](#) applicable to private banks, signed between the Ministerio de Meio Ambiente (MMA) and the [Federação Brasileira de Bancos](#)
- The [United Nations Principles for Responsible Investment \(UN-PRI\)](#), of which Funcef, Previ, and Petros are signatories

Updates

Mar 08, 2012, Munich Re removed from Global Challenges Index due to violation of

The construction of the Belo Monte dam in the Amazon region of Brazil has come under heavy criticism because of the impact the dam may have on the Amazon rainforest, particularly on species diversity, and hence also on the livelihoods of the indigenous inhabitants. Due to this, Munich Re was removed from the Global Challenges Index (GCX). By agreeing to provide cover for the construction phase of the project, the reinsurer violated the GCX's strict environmental requirements. The UK retailer J Sainsbury has taken Munich Re's place in the index. The retailer's impressive credentials include a good system for ensuring compliance with products which meet particular social or environmental requirements, such as fair trade products, and has implemented comprehensive measures to ensure compliance. Another company promoted to the index is the US food producer Hain Celestial. The company generates the bulk of its turnover from the production and sale of consumer products. Another company Energy Conversion Devices, which no longer meets the GCX's market capitalisation requirements.

Mar 07, 2012, ILO Says Brazil Violated Convention 169 in Belo Monte Case

According to a report published by the Committee of Experts on the Application of Conventions and Recommendations for the International Labour Organization (ILO), the Brazilian government has violated Convention 169, which was enacted in 1979 to protect the rights of indigenous communities via their spearheading of the Belo Monte Dam project in the Amazon region. Per ILO Convention 169, which was enacted in 1979, states that prior and informed consultation with regards to projects and/or state actions that may impact their property or rights. In light of the lack of consultation, the Brazilian government can take in order to adhere to the Convention's requirements. Please click [here](#) for more information.

Nov 08, 2011

On October 27, 2011, the Belo Monte Dam construction site was occupied by 400 indigenous people, fishermen and riverine community members protesting against human rights violations. Norte Energia, S.A. ordered the military police to clear the area, which occurred the following day. In October, one lawsuit, regarding lack of prior consultation with affected indigenous communities, began trial in the Brazilian Regional Federal Court. The Belo Monte Dam licenses are illegal and must be cancelled due to evidence that the Brazilian government did not hold proper consultations. A second judgment was issued in January, contrary to a decision given November 9th, 2011.

There are currently at least 12 lawsuits pending in Brazilian courts pertaining to Belo Monte Dam.

The IACHR of the Organization of American States is currently weighing the possibility of an action against the Brazilian government for human rights violations in indigenous communities.

On June 1st, the Brazilian government approved an Installation License for the controversial Belo Monte Dam in the Amazon. The environmental agency ANEEL ordered Norte Energia (75% owned by the government) fulfilling the 40 social-environmental prerequisites to the project that had been mandated in 2010.

After news of the installation license was broadcast over the internet, street protests against Belo Monte began to erupt in São Paulo, Rio, Salvador and Belém. Kayapó chief Raoni convened men and women from the tribe to protest in the town of Colider, dancing and chanting war songs, vowing to put their lives on the line.

On February 25, 2011, judge Ronaldo Destêrro of a Federal Court in Belém suspended IBAMA's partial license, halting any construction efforts, until the dam's environmental license were met.

In February 2011, Curt Trennepohl substituted Americo Tunes as the new president of IBAMA.

In January 2011, Abelardo Bayma Azevedo resigned as President of IBAMA, over pressure to approve an Installation License for Belo Monte Dam. The "partial" installation license considered illegal by Brazilian lawmakers, and issued authorizations to begin vegetation clearing in the project's easement.

Eletrobras announced in August, 2010 that it would purchase the 30% of electricity from Belo Monte destined to both the "free" market and the "captive" market. It is to insure that the electricity would have a buyer (source: O Globo).

The government has assigned 70% of Belo Monte's electricity (3093 MW) to go to the "captive" market for public consumption, at a price of R\$70 per MWh bought by Eletrobras at a price of R\$130 (around USD \$74) per MWh to sell to the "free" market. The remaining 10% of the electricity (442 MW) will go to intensive industries who both produce and consume energy, at a price of R\$100 (around USD \$57) per MWh (source: Valor Econômico).

The Federal Attorney General's office in Brazil is currently investigating the possibility that the auction was held before an appellate court lifted the injunction. BNDES will fund at least 80% of the project costs (estimated between US\$11bn and US\$18bn), and the remaining 20% will be financed by the Norte Energia consortium.

On May 25, 2010 three members of the consortium building the dam decided to pull out. Their reasoning for pulling out is based on what they deem to be a high risk.

Despite three federal restraining orders to halt the project auction, on April 20, 2010 the Norte Energia consortium won the right to build the dam. The consortium is led by Eletronorte, a subsidiary of state-owned utility holding group Eletrobras, and currently includes the participation of 18 companies.

financial institutions involved

insurance companies

ACE

Austral

Fairfax

Fator

IRB-Brazil Re

- shares/bonds underwriter or manager: (July 11, 2011)
IRB-Brazil Re is reported to cover 22% of the risk.
source: [Bb Mapfre Lidera Seguro De Belo Monte](#)

JLT Re

Kiln

MAPFRE

- shares/bonds underwriter or manager
MAPFRE is reported to cover 30% of the risk.
source: [Noticia.cfm?id=389018](#)

Munich Reinsurance AG

- shares/bonds underwriter or manager: R\$40 million (July 11, 2011)
<http://www.amazonia.org.br/noticias/noticia.cfm?id=389018>
source: Munich Re is reported to cover 25% of the risk.

QBE Insurance Group Ltd.

SulAmerica

banks

Banco do Brasil -

- approached/interest: Banco do Brasil may fund R\$5.5 billion (\$3.2 billion USD), or about 30% of Belo Monte's stated cost. (September 9, 2010)
source: [Valor Econômico, "BB empresta R\\$ 5,5 bilhões para a usina de Belo Monte"](#)

national development banks

BNDES

The Brazilian Development Bank BNDES (Banco Nacional de Desenvolvimento Econômico e Social)

- approached/interest: BNDES has publicly committed to funding up to 80% of Belo Monte, but can only legally fund 25% of its referential patrimony, or R\$14.5 billion reais (\$8.4 billion USD) of Belo Monte, in accordance with BNDES' adherence to the Basil Accords.
- approached/interest: BNDES is offering 30-year interest periods at 4%, way below the cost of capital.
- line of credit: BNDES issued a line of credit of R\$7 billion (USD \$4 billion) for the purchase of hydroelectric machinery and equipment. The line of credit was funded by a capital injection of R\$74.2 billion (USD \$42.35 billion) by the National Treasury. April 15, 2010
source: [O Globo, "CMN aprova linha de R\\$ 7 bilhões para equipamentos de hidrelétricas"](#)
- line of credit: An additional R\$1 billion was destined for the purchase of hydroelectric machinery and equipment as part of a R\$ 7 billion credit to increase the export of durable consumer goods. The line of credit stipulates that 60% of the products that utilize the credit must be produced nationally. (April 29, 2010)
source: [O Globo, "BNDES terá linha de R\\$ 7 bi para exportação de bens de consumo. Linha para hidrelétrica ganha R\\$ 1 bi"](#)
- line of credit: Alstom, Voith Siemens, and Vatech Andritz are utilizing BNDES' line of credit for hydroelectric machinery and equipment to subsidize up to 30% of their offer to supply turbines for Belo Monte. The companies each have manufacturing plants within Brazil. (June 8, 2010)
source: [Folha de São Paulo, "Europeus devem equipar Belo Monte"](#)

investment funds

Caixa Banco de Investimento

FI-FGTS

Fundo de Investimento do Fundo de Garantia do Tempo de Serviço

- corporate loan: FI-FGTS disbursed R\$ 280 million (USD \$160 million) to Grupo Bertin through its infrastructure investment fund. Grupo Bertin owns two of the companies participating in Belo Monte: Contern Construções (3.75%) and Gaia Energia e Participações (10.02%) (April 25, 2010)
source: [O Globo, "Bertin obteve R\\$280 milhões do fundo FI-FGTS"](#)
- project finance: FI-FGTS will finance close to 5% of Belo Monte, through its 40% holding in J. Malucelli. (June 11, 2010)
source: [Valor Economico, "Fundos se acertam em Belo Monte"](#)

pension funds

Funcef

pension fund of Caixa Economica Federal employees, 3rd largest in Brazil, signatory of UNPRI

- approached/interest: Funcef has expressed interest in participating in Belo Monte by drawing from its R\$2billion commitment to infrastructure (Feb 2, 2010)
source: [O Globo, "Funcef recupera perdas e pretende investir em Belo Monte"](#)
- project finance: Funcef will invest in 5% of Belo Monte; half will be direct investment (2.5%), and half will be through a partnership with Engevix called Caixa FI Cevix (2.5%) (July 15, 2010)
source: [Estadão, "Previ está entre socios de Belo Monte, diz Eletrobras"](#)

Petros

pension fund of Petrobras employees, 2nd largest in Brazil, signatory of UNPRI

- approached/interest: Petros has expressed interest in participating in Belo Monte.
- project finance: Petros will directly finance 10% of Belo Monte. (June 14, 2010)
source: Valor Economico, "Fundos se acertam em Belo Monte"

Previ

pension fund of Banco do Brasil

- approached/interest: Previ is reported to be interested in investing in Belo Monte. (May 15, 2010)
source: O Estado de São Paulo, "Fundos de pensão estatais terão 10% da usina de Belo Monte"
- project finance: Previ will indirectly finance 10% of Belo Monte through a partnership with Spanish electric utility Iberdrola, in Bolzano Participações (10%). (July 15, 2010)
source: Estadão, "Previ está entre socios de Belo Monte, diz Eletrobras"

multilateral development banks

World Bank (IBRD, IDA)

- On 5 March, 2009, the World Bank approved a US\$1.3 billion loan to Brazil for "environmental protection" which is weak in terms of environmental performance criteria and a number of governance issues. Bolstering BNDES, part of the money could be used for the Belo Monte dam.

The 18 members of the Norte Energia consortium are expected to fund the remaining 20% of the project that is not financed by BNDES, the Brazilian National Development Bank.

*In March 2012 Munich Re was removed from the Global Challenges Index due to environmental standards violations.

applicable policies

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- The **United Nations Principles for Responsible Investment (UN-PRI)**, of which Funcef, Previ, and Petros are signatories

companies

Alstom

Alstom signed a 500 million euro contract with Norte Energia to provide power equipment, in February 2011.

<http://www.alstom.com/brazil/news-and-events/press-releases/Belo-Monte/>

Andrade Gutierrez

Andrade Gutierrez is part of the Belo Monte Construction Consortium (CCBM).

Andritz -

Arcadis

Arcadis has signed a deal worth US\$146 million with Norte Energia S.A. to provide owner's engineering services. The Norway-based consulting, design, engineering and management services company will carry out its work via its Brazilian subsidiary, Arcadis Logos, and joins Themag, Concremat and Engecorps as part of a consortium.

Camargo Corrêa

Camargo Corrêa is part of the Belo Monte Construction Consortium (CCBM).

Cemig

Cemig and Light hold a 9.77% stake in the Norte Energia Consortium under the name Amazônia.

<http://norteenergiasa.com.br/portugues/composicao-acionaria/>

Companhia Hidro Eletrica do Sao Francisco (CHESF)

Eletrobras subsidiary; electric company serving northeast Brazil CHESF holds a 15% stake in the Norte Energia Consortium.

<http://norteenergiasa.com.br/portugues/composicao-acionaria/>

Eletrobras

Eletrobras holds a 15% stake in the Norte Energia Consortium. <http://norteenergiasa.com.br/portugues/composicao-acionaria/>

Eletronorte

Eletronorte holds a 19.98% stake in the Norte Energia Consortium. <http://norteenergiasa.com.br/portugues/composicao-acionaria/>

Iberdrola

Impsa

Argentinian turbine supplier.

JMalucelli Energia

Energy branch of the J Malucelli Group. They focus on investment in electrical energy, inventory, implementation, and operation.

Light

Cemig and Light hold a 9.77% stake in the Norte Energia Consortium under the name Amazônia.

<http://norteenergiasa.com.br/portugues/composicao-acionaria/>

BANKTRACK

Metso Corporation

Metso signed a 30 million euro contract with Consorcio Construtora Belo Monte for construction equipment supply on February 03 2012. <http://veja.abril.com.br/noticia/economia/metso-fornecedora-equipamentos-para-belo-monte>

Norte Energia consortium

The Norte Energia Consortium is the stakeholders' consortium of near 18 companies that is responsible for project implementation. They are not directly responsible for construction.

OAS

OAS Group (OAS) is composed of three branches: OAS empreendimentos, construtora OAS, and OAS investimentos. The group focuses on infrastructure construction. OAS is part of the Belo Monte Construction Consortium (CCBM).

Odebrecht

Odebrecht is part of the Belo Monte Construction Consortium (CCBM).

Queiroz Galvão

Sinobras

Siderúrgica Norte Brasil S.A. (Sinobras) is a Brazilian national pig iron manufacturer. They form part of the Aço Cearense group of Maranhão. Sinobras holds a 1% stake in the Norte Energia Consortium. <http://norteenergiasa.com.br/portugues/composicao-acionaria/>

Vale

Vale do Rio Doce Vale holds a 9% stake in the Norte Energia Consortium. <http://norteenergiasa.com.br/portugues/composicao-acionaria/>

Voith Siemens