Belo Monte: After the Flood is a new documentary directed by award-winning filmmaker Todd Southgate and produced with International Rivers, Amazon Watch and Cultures of Resistance. The film explores the history and consequences of one of the world's most controversial hydroelectric dam projects, located on the Xingu River in the heart of the Brazilian Amazon. For nearly three decades, the project has been the focus of escalating conflicts and a passionate struggle in defense of the environment, human rights and indigenous livelihoods.

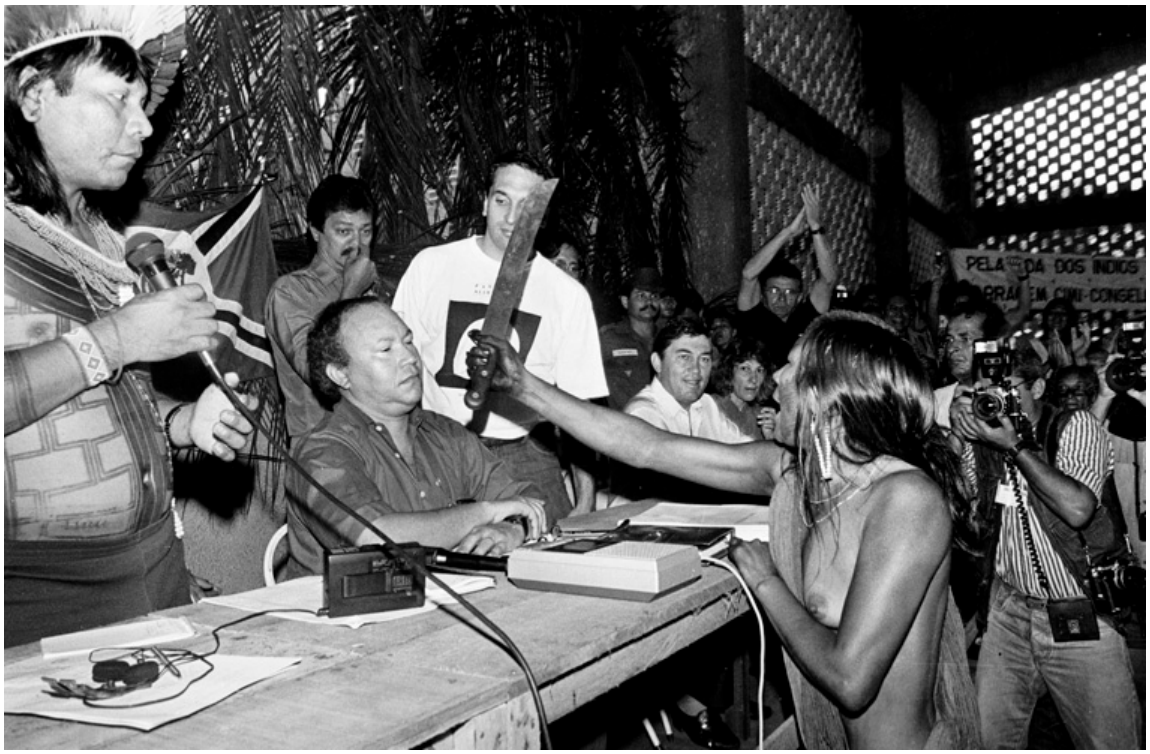
This film was conceived as a tool for raising awareness about the realities of Belo Monte, with an eye towards contributing to public debate to ensure that similar mistakes are not repeated elsewhere in the Amazon and beyond. We hope this short companion guide will be helpful in furthering understanding of key issues raised in the film, and as a tool for organizing screenings with discussion of the film at community gatherings and open public events.

The Xingu River and Its Peoples

The Xingu River basin is home to some 25,000 indigenous people from 40 ethnic groups, as well as variety of other traditional riverbank populations - a living symbol of Brazil's cultural and biological diversity. The Xingu flows 2,271 kilometers from the central savanna region of Mato Grosso to its mouth on the main stem of the Amazon. Indigenous reserves and conservation areas formally protect much of the course of the Xingu River. However, the Xingu and its tributaries have been increasingly impacted by indiscriminate logging, clear-cutting, burning and use of biocides, associated mainly with the expansion of large-scale mechanized soy monocultures and cattle ranching in surrounding areas. Worse still, hydroelectric dams and mining have become growing threats in recent years for the Xingu basin and its traditional inhabitants.

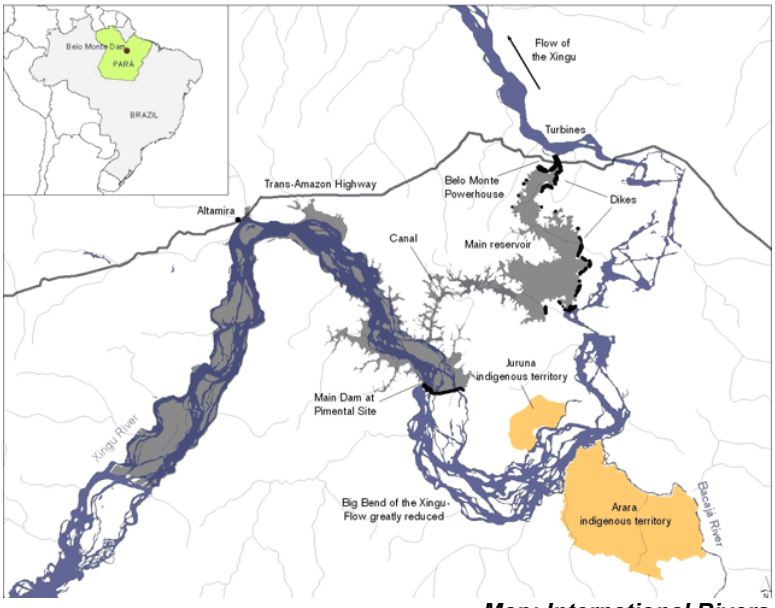
Origins of Belo Monte

Official plans for damming the Xingu River can be traced back to the 1970s and '80s, during Brazil's military dictatorship. Developers originally planned to build six large dams on the Xingu that would flood extensive areas of indigenous territories. The government's plan met strong resistance, led by the Kayapó people, and the project was scrapped after a historic gathering of indigenous people held in Altamira in July 1989.



Tuira Kayapó brandishes a machete at Eletronorte President José Lopez Muniz at the Altamira Gathering in 1989. Photo credit: Paulo Jares

In 2002, the Brazilian government unveiled a revamped version of the project under a new name: the Belo Monte Hydroelectric Complex. The plan proposed to divert 80% of the flow of the Xingu River into huge artificial canals and a powerhouse, leaving high and dry a 100 kilometer rocky stretch downstream known as the Xingu's "Big Bend." Upriver from the Pimental Dam, where the Xingu River would be diverted, a reservoir would flood forests, river islands and a significant part of the town of Altamira.



Map: International Rivers

Belo Monte at a Glance

- Two dams — one to divert the Xingu River (Pimental Dam) from the Big Bend and another to house the main turbines
- Two reservoirs — one in the Xingu riverbed, and the other on dry land, flooding a total of 668 km2, including 400 km2 of forest; in all, 1,522 km2 would be affected
- Two massive canals (later reduced to one) and a series of dykes along the artificial canal
- 20,000–40,000 people displaced, including residents of urban and rural areas
- Cost: over 30 billion Brazilian reais, nearly four times the original projected cost

Developers originally estimated that Belo Monte would have 11,233 MW of installed generating capacity. However, given the intense seasonality of the Xingu River between the rainy and dry seasons, the project would operate at peak capacity for only a couple months out of the year. All in all, Belo Monte would generate an average of only 4,500 MW, dropping to as little as 1,000 MW of electricity generated during periods of low water.

To reduce indigenous resistance to Belo Monte, Brazil's National Council for Energy Policy (CNPE) issued a resolution in 2005, guaranteeing that no other dams would be built upriver on the Xingu. Many have questioned such guarantees, since the council's decision could be easily overturned.

Given the project's extremely high price tag and inefficiency associated with the Xingu River's seasonality, many believe that after completing dam construction, the Brazilian government will rekindle plans for upstream dams on indigenous lands, to ensure water storage for Belo Monte to operate at a higher generating capacity throughout the year.

Steamrolling Belo Monte

In July 2005, the Brazilian Congress approved a legislative decree authorizing the construction of Belo Monte, despite the absence of a duly-completed and approved environmental impact assessment (EIA) and without conducting free, prior and informed consultations among indigenous communities. The Congressional decree was a direct affront to the Federal Constitution and international human rights agreements, to which Brazil is a part.

In February 2009, an Environmental Impact Assessment (EIA) for Belo Monte was delivered for approval to the federal environmental agency, IBAMA. In a serious conflict of interest, the parastatal energy company Eletrobras co-authored the assessment with three of Brazil's largest construction firms (Andrade Gutierrez, Camargo Correa and Odebrecht), all of whom stood to financially benefit from the dam's construction.

By September 2009, an independent panel of scientists had produced a comprehensive report that flagged major problems with the EIA's analysis of social and environmental impacts and risks of Belo Monte. Critiques addressed such issues as the devastating impacts of damming and diverting the Xingu River for indigenous peoples living downriver along the Big Bend; the decimation of migratory fish species and breeding grounds for turtle species and terrestrial animals, many of which are endemic to the lower Xingu River; the elimination of fisheries essential for livelihoods and the local economy; and adverse consequences for urban populations facing overstretched health, sanitation and public safety services, the arrival of tens of thousands of job-seeking migrants and the flooding of a significant portion of the city of Altamira.

Many of the scientists' critiques were mirrored in technical opinions of staff at IBAMA and other government agencies, such as Federal Indian Agency (FUNAI). However, under heavy political pressure from the highest levels of President Luiz Inacio Lula da Silva's administration, IBAMA eventually accepted the controversial impact assessment and granted an initial license in February 2010 that allowed the project to advance. The impact assessment was so dubious, and the decision to approve the project so controversial, that two senior IBAMA officials quit in protest.

The selection of the project developer was equally questionable. In April 2010, the contract was awarded to a hastily-convened consortium, Norte Energia, S.A (NESA), led by CHESF, an affiliate of the parastatal energy company Eletrobras, and a large construction company, Queiroz Galvão. Soon after the auction, Queiroz Galvão and smaller private construction companies abandoned NESA to join giants Odebrecht, Andrade Gutierrez and Camargo Correa in CCBM, a construction consortium contracted by Norte Energia that stood to profit handsomely in project contracts, while assuming little to no financial risk. They were substituted in NESA by government-controlled pension funds (Petros,

FUNCEF, PREVI) and by mining giant Vale, privatized in the 1990s, but still politically controlled by the federal government.

In January 2011, IBAMA issued a "partial" installation license for Belo Monte, allowing for installation of work camps and access roads, despite the absence of a legal precedent under Brazilian environmental legislation. Under intense political pressure from incoming Brazilian president Dilma Rousseff, the license was issued after IBAMA head Abelardo Bayma Azevedo resigned in protest and was quickly replaced. IBAMA issued a full installation license for Belo Monte in June 2011, allowing for dam construction to speed ahead.

Throughout the planning, licensing and construction of Belo Monte, the Federal Public Prosecutors Office (MPF) filed a series of lawsuits regarding violations of human rights, especially those of indigenous peoples, and environmental legislation. Examples of illegalities flagged in MPF lawsuits have included: i) Congressional authorization for Belo Monte, in the absence of a process of free, prior and informed consent with affected indigenous peoples, ii) insufficient analysis of impacts on indigenous peoples within the environmental impact assessment, and iii) concession of environmental licenses by IBAMA, despite Norte Energia's non-compliance with legally-required mitigation and compensation measures.

In the majority of cases, MPF lawsuits have received favorable rulings from federal judges, suspending licenses for Belo Monte. However, such decisions have been quickly overruled through the use of an archaic legal device, dating back to the military dictatorship, that allows for chief justices of higher-level courts to unilaterally suspend decisions, based on a supposed threat to "national security" if the project does not move ahead as scheduled. Given bureaucratic inertia and political intervention within the judiciary, dam construction at Belo Monte has been allowed to continue, despite the project's glaring disregard for human rights and environmental legislation.

Within this context, NGOs and social movements registered a series of complaints against Belo Monte with the Inter-American Commission for Human Rights (IACHR) and UN Human Rights Council. The Brazilian government ignored recommendations from these bodies, and even threatened to pull funding from the Organization of American States (OAS), when the IACHR issued precautionary measures in April 2011, calling on Brazil to honor its commitments to respect the rights of indigenous peoples in the case of Belo Monte.

Approximately 80% of project costs for Belo Monte have been financed with taxpayer-funded, subsidized loans from the Brazilian National Development Bank (BNDES). Recent studies on the involvement of BNDES involvement in Belo Monte have spotlighted how the bank's social and environmental safeguards have been largely ineffective in addressing gross violations of human rights and environmental law in the planning, licensing and implementation of Belo Monte.

Social and Environmental Consequences of Belo Monte

In February 2016, five years after construction began, Belo Monte's first turbine was tested. The trial was made possible following the flooding of the dam's main reservoir in the preceding months. While dam proponents lauded the test, those living in the region had no reason to celebrate.

As described through the voices of people interviewed in the film, major social and environmental consequences of Belo Monte have included:

- Escalation of violence in the city of Altamira, associated with the flood of migrants and subsequently high levels of unemployment, as workers were laid when dam construction neared completion. Since dam construction was initiated in 2011, Altamira has become one of the planet's most violent cities, with 135 murders in 2015.

- Public services in health care, sanitation and public safety have been stretched to the point of virtual collapse, as Altamira's population nearly doubled without appropriate increases in social spending and services, while Norte Energia has resisted compliance with previous commitments;

- Displacement of urban populations previously living in lowland areas of Altamira flooded by the reservoir, without adequate compensation for relocation and housing;

- Severe damage to freshwater ecosystems and flooded forests on the Big Bend of the Xingu, caused by the diversion of Xingu River, with devastating impacts on fish and fisheries essential for indigenous peoples and other local populations;

- Lack of adequate compensation for fishermen and other river-bank populations whose livelihoods have been severely undermined by Belo Monte, and who remained largely invisible through the planning, licensing and implementation of Belo Monte; and

- Increased pressures on areas occupied by indigenous peoples and other traditional populations, associated with expansion of access roads, real estate speculation and pressures from unemployed migrants and other groups (family farmers, fishermen, etc.) displaced by Belo Monte.

Belo Monte's main powerhouse, March 2016 ***Photo credit: Todd Southgate***

Corruption: A Driving Force Behind Belo Monte

Recent investigations by the Federal Police and Federal Public Prosecutors unveiled a multi-million dollar corruption scheme in Belo Monte, involving construction giants Odebrecht, Camargo Correa and Andrade Gutierrez. Systematic graft was linked to pay-offs to political bosses such as Minister of Mines and Energy Edson Lobão and illegal campaign contributions to political parties that formed the ruling coalition of Luis Inácio Lula da Silva and his successor, Dilma Rousseff. Systematic corruption in Belo Monte and other large dam projects, and within the state oil company, Petrobras, contributed to a political and economic crisis in Brazil that ultimately led to the impeachment of Dilma Rousseff in August 2016.

Tapajós: Dams and Resistance on Another Threatened Amazonian River

The film also illustrates how the neighboring Tapajós River and its tributaries, another region of tremendous social and biological diversity, is currently the stage of official plans for an unprecedented number of hydroelectric dams, in conjunction with industrial waterways (hidrovias), road paving, mining and agribusiness enterprises. Similar to Belo Monte, dams and other mega-projects in the Tapajós reflect narrow political and economic interests, while systematically violating the rights of indigenous peoples and other local populations, contributing to escalating social and environmental conflicts. Such projects represent huge threats to the rivers, forests and livelihoods of indigenous peoples and other local inhabitants.

The film highlights how indigenous peoples and other traditional populations of the Tapajós, together with their allies, are fighting back in defense of their rights, employing creative and increasingly successful tactics to protect their territories, cultures and livelihoods. An important example is the mobilization of the Munduruku people to self-demarcate the Sawre Muybu territory, threatened by the largest of the planned dams, São Luiz do Tapajós. At the same time, the Munduruku people developed, after much internal discussion, a “consultation protocol” establishing how a culturally appropriate process of free, prior and informed consultation and consent should be carried out by the government for any project that affects their territories and rights. Both of these initiatives represent creative means for indigenous peoples to assert their rights.

On a positive note, incoming IBAMA president Suely Araujo, based on technical recommendations from her staff, suspended the environmental licensing process for the São Luiz do Tapajós Dam in July 2016, citing serious unresolved questions concerning the project’s social and environmental impacts. Though the suspension could be reverted in the future, it was a major victory for the Munduruku and their allies, and for the rule of law in Brazil.

Sustainable Energy Solutions

Despite the federal government’s recent obsession with large dam projects in the Amazon, there is overwhelming evidence that Brazil could pursue alternative energy strategies with tremendous social and economic benefits, avoiding the catastrophic consequences of projects like Belo Monte.

In terms of renewable energy, Brazil possesses enormous potential for solar, wind and biomass. Improved energy efficiency holds great promise as well: A recent study by WWF-Brazil demonstrated that Brazil could cut expected demand for electricity by 40% in 2020, through investments in energy efficiency. The power saved would be equivalent to 14 Belo Monte hydroelectric plants and would result in national electricity savings of up to $19 billion by 2020.

Discussion Questions

1. Based on the experience of Belo Monte, can it be argued that Amazonian dams represent a source of cheap, clean energy? Why or why not?

2. What factors explain the Brazilian government's obsession with the Belo Monte Dam, despite protests by social movements and the gross violations of human rights and environmental legislation?

3. What are some of the major social and environmental impacts of Belo Monte illustrated in the film?

4. Critics argue that the federal government has systematically ignored the rights of indigenous peoples to processes of free, prior and informed consultation and consent (FPIC) in developing Belo Monte and other Amazonian dams. What is FPIC and how should it be carried out?[1]

5. In late 2015, Brazil's Public Federal Ministry filed a lawsuit, arguing that Belo Monte was creating a situation of "ethnocide" for indigenous peoples living on the Big Bend of the Xingu River. What is ethnocide, and how does it compare to genocide? Who has been responsible for committing ethnocide in the case of Belo Monte?

6. What other options for energy policy should be considered in Brazil? What social, environmental and economic factors should be considered in a country's energy planning?

Updates and news related to the film "Belo Monte: After the Flood":

Visit the film's website: www.belomonteaftertheflood.com
Visit the film's Facebook page: www.facebook.com/BeloMonteAfterTheFlood/
International Rivers: www.internationalrivers.org
Amazon Watch: www.amazonwatch.org
Movimento Xingu Vivo: www.xinguvivo.org.br

More information:

1. The Xingu and its Peoples
- Indigenous peoples of the Xingu: https://pib.socioambiental.org/en/povo/xingu
- "Where did the swallows go?"; documentary film co-produced by Instituto Socioambiental and Instituto Catitu about indigenous peoples' perceptions of climate change related to deforestation and burning in the Xingu Basin https://vimeo.com/180574512

2. Origins of Belo Monte
- "Tenotã–mõ: Alerts regarding the consequences of hydroelectric projects planned for the Xingu River, Brazilian Amazon" https://www.internationalrivers.org/node/4065

3. Steamrolling Belo Monte
- Independent Experts Panel Report on Environmental Impact Assessment of Belo Monte (English summary) https://www.socioambiental.org/banco_imagens/pdfs/Belo_Monte_Painel_especialistas_EIA.pdf
- Documenting Belo Monte Dam's Risks: Buyer Beware https://www.internationalrivers.org/resources/documenting-belo-monte-dam-s-risks-buyer-beware-3428
- Large dams and violations of indigenous peoples' rights in the Brazilian Amazon (report to UNHRC) http://amazonwatch.org/assets/files/2014-feb-unhrc-brazil-dams-statement.pdf

[1] See OXFAM's guide to FPIC: http://www.culturalsurvival.org/sites/default/files/guidetofreepriorinformedconsent_0.pdf

- Brazilian judicial abuses questioned on anniversary of military coup http://www.aida-americas.org/sites/default/files/press_rel/Press%20release%20IACHR%20Brazil%2014-03-31.pdf
- Large dams and violations of indigenous peoples' rights in the Brazilian Amazon: Access to Justice and Suspension of Legal Decisions (Suspensão de Segurança)* (report to UNHRC) https://documents-dds-ny.un.org/doc/UNDOC/GEN/G14/044/15/PDF/G1404415.pdf?
- The Belo Monte Dam: An Environmental Crime http://www.huffingtonpost.com/bianca-jagger/the-belo-monte-dam-an-env_b_1614057.html
- Planned disinformation: The example of the Belo Monte Dam as a source of greenhouse gases http://philip.inpa.gov.br/publ_livres/Preprints/2017/Belo_Monte-emissions-Planned_disinformation-Preprint.pdf

4. Social and Environmental Consequences of Belo Monte
- See website of Dr. Philip Fearnside (National Institute for Amazonian Research – INPA for various articles on Belo Monte and other Amazonian dams: http://philip.inpa.gov.br
- Belo Monte, Brazil: The tribes living in the shadow of a megadam https://www.theguardian.com/environment/2014/dec/16/belo-monte-brazil-tribes-living-in-shadow-megadam
- Brazil's dispossessed: Belo Monte dam ruinous for indigenous cultures https://news.mongabay.com/2016/12/brazils-dispossessed-belo-monte-dam-ruinous-for-indigenous-cultures/eno
- Dam and Be Damned: The Adverse Impacts of Belo Monte on Indigenous Peoples in Brazil https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2544558

5. Corruption: A Driving Force Behind Belo Monte
- Dirty Business: Unraveling Corruption in Brazil's Dam Industry https://www.internationalrivers.org/blogs/260-0
- Massive Corruption Scandal Implicates Brazil's Amazon Dam Builders https://www.internationalrivers.org/resources/8595

6. Belo Sun - Proposed Canadian gold mining project on "Big Bend" of the Xingu
- Destruction advances along the Xingu River https://medium.com/social-environmental-stories/destruction-advances-along-the-xingu-river-146aa86d9ae4#.qv6h5xla6

- Canadian miner's quest for gold meets politics in the Amazon jungle http://www.theglobeandmail.com/report-on-business/international-business/latin-americanbusiness/into-the-brazilian-jungle-a-miners-quest-for-a-golden-legacy/article17382456/?

7. Tapajós: Dams and Resistance on Another Threatened Amazonian River
- Ocekadi: Hydroelectric dams, socioenvironmental conflicts and resistance in the Tapajós Basin https://www.internationalrivers.org/node/11503
- Battle for the Amazon: Tapajós basin threatened by massive development https://news.mongabay.com/2017/01/battle-for-the-amazon-tapajos-basin-threatened-by-massivedevelopment/
- The End of a People: Amazon dam destroys sacred Munduruku heaven https://news.mongabay.com/2017/01/the-end-of-a-people-amazon-dam-destroys-sacred-mundurukuheaven/
- Is Brazil greenwashing hydropower: the case of the Teles Pires dam https://news.mongabay.com/2017/01/is-brazil-green-washing-hydropower-the-case-of-the-teles-piresdam/
- Munduruku building new alliances to fight Tapajós basin dams in Amazon http://reporterbrasil.org.br/2017/01/munduruku-building-new-alliances-to-fight-tapajos-basin-damsin-amazon/

8. Sustainable Energy Solutions
- Summary of Greenpeace's latest Energy (R)evolution report for Brazil http://m.greenpeace.org/brasil/Global/brasil/image/2015/Dezembro/2016/Energy%20Revolution%20–%20Brazil%202016%20.pdf
- The Brazilian Electricity Sector and Sustainability in the 21st Century: Opportunities and Challenges https://www.internationalrivers.org/node/7525

Please give us your feedback about this companion guide to the film "Belo Monte: After the Flood"! What was most helpful? How could it be improved?