



Brazil's Belo Monte Dam project

Financial impact, indigenous peoples' rights & the environment

SUMMARY *Brazil is constructing the third largest hydroelectric power plant in the world. The Belo Monte Dam is being built in the state of Pará, Brazil. Its first commercial generation is expected to come on stream in 2015. When the full plant is completed, in 2019, it will generate a maximum 11 233 megawatts (MW) capacity.*

Planning for what was then named the Kararaô Dam began in 1975. But international financial institutions withdrew in the face of strong opposition. With technical changes in the plans to reduce the concerns of opponents, the renamed Belo Monte project has become one of the flagship initiatives in Brazilian large-scale infrastructure development. After a controversial licensing process, construction plans were finally authorised in August 2012.

Total investment in the plant amounts to R\$ 28.9 billion (approximately €10.2 billion). The project will be constructed under a public-private partnership.

Opponents criticise the investment because of its environmental impact, lack of consultation of indigenous people and the resettlement of at least 5 100 families. Many court cases have been heard so far, with mixed results, on grounds of procedural violations, lack of relevant information available, incomplete impact assessment and political interference in the technical licensing process.



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This briefing expands on an earlier [outline](#) published on 12 June.

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Finance

R\$ 1 = ca €0.34 (June 2013 exchange rate)

Funding – amounting to R\$ 28.9 billion – will be provided by the Brazilian National Bank for Economic and Social Development ([BNDES](#)) and by the companies forming the Norte Energia consortium.

BNDES committed, in 2012, [R\\$ 22.5 billion](#), the largest investment ever made by the bank. Included in this loan is R\$ 9 billion, channelled through Caixa Economica Federal (R\$ 7 billion) and BTG Pactual (R\$ 2 billion). R\$ 3.7 billion has been devoted to Norte Energia for the acquisition of equipment under a specific Investment Support Programme. Environmental and social investments will amount to R\$ 3.2 billion, with specific environmental, social, economic, land tenure, physical and biotic initiatives under the Basic Environmental Project. This project also includes mitigating and compensatory actions for the physical and cultural survival of the indigenous communities. BNDES will also finance studies on identifying relevant investments needed in the region.

The remaining [R\\$ 6.4 billion](#) of funding will be provided by the **Norte Energia** consortium, which won the concession auction in 2010¹. Norte Energia is composed of the Eletrobras group (49.9%) and other Brazilian firms². The [Brazilian pension funds](#) Petros and Funcef (part of the Norte Energia

consortium) are also involved, with a 20% share of the consortium. The Previ pension fund is also participating in the project, through the BNDES. In addition to these funds, infrastructure bonds worth R\$ 500 million are expected to be issued.

R\$ 500 million will go to the Xingu Sustainable Regional Development Programme, designed by the federal government and the Pará state government to improve the quality of life of the region's people.

The [Brazilian government](#) has specified that taxpayers will not bear the burden in case of cost overruns, which would instead fall on the developers of the project. In addition, tax benefits will not be granted to the consortium in charge of the project.

There is no **EU public funding** directly earmarked for this project, although other [EU funding](#) is allocated for energy projects to Brazil. Moreover, a budget line of €500 million has been granted by the European Investment Bank to BNDES, for small and medium-sized enterprises that invest in renewable energy and energy efficiency.

Involvement of international Financial Institutions

The World Bank, the Inter-American Development Bank and other international partners were [involved](#) in the previous project for the Kararaô Dam, in the 1980s. Strong public opposition to the investment, raising socio-economic and environmental concerns, made these financial actors pull out of the project.

Local civil society organisations recently [criticised](#) the disbursement – though not directly related to the Belo Monte Dam – of funds from the World Bank to BNDES, due to poor application of social and environmental standards.

Opposition from civil society

Local pressure groups [criticised](#) the involvement of BNDES while questioning its transparency and accountability. They argue that several projects recently funded by the

bank – including Belo Monte – are neither economically viable nor environmentally and socially responsible.

Another issue of concern is the cost of the dam. Civil society believes that the true costs of the project will be substantially higher than those officially announced, since the difficulties of building such a project in the Amazon will probably lead to a requirement for [additional funds](#).

Energy issues

Capacity

The Belo Monte dam should provide, during the rainy season, additional maximum capacity of [11 233 MW](#) to the Brazilian energy grid. This capacity will be obtained through two power houses: the main one (11 000 MW), located in Belo Monte, and a complementary one (233 MW), located on the Pimental site (see map in the Annex). An innovative canal system is supposed to reduce the area required to generate power. Area-to-capacity ratio will amount to 0.05 km²/MW, against a national average of 0.49 km²/MW.

The Ministry of Mines and Energy stated that [average capacity](#) will be around 4 500 MW, 40% of its full capacity. During the dry season, in particular, the capacity of the plant will decrease substantially.

Why hydroelectric energy?

The Brazilian Minister for Mines and Energy Edison Lobão stated that the Belo Monte Dam investment was chosen due to "[availability, cheapness and renewability](#)". The government believes that meeting demand with wind and biomass energy would be twice as costly, and even more expensive with solar energy.

Due to Brazilian economic development, energy consumption in the country is increasing. Electricity from hydroelectric plants in the country already [accounts for 81.9%](#)³ of total consumption.

Brazilian levels of average annual household electricity consumption are lower than in other big and emerging economies. According to the [National 10-Year Energy Expansion Plan](#), Brazil needs to install about 6 000 MW of additional capacity each year over the next decade. [Demand has risen](#) by about 30% in the past decade and even though the national grid is well integrated, major power cuts still occur.

The government has specified that energy conservation measures will be [insufficient](#) to cover need, since savings would only amount to 6% of the energy to be produced by the Belo Monte Dam.

Civil society complains of the unreliability of official figures. A WWF study suggests that if Brazil invested more in [energy efficiency](#), it would reduce demand for electricity by the equivalent of the output of 14 Belo Monte dams and save R\$ 33 billion.

[NGOs](#) have also claimed that other dams would be built in order to guarantee capacity for Belo Monte, but [Eletronorte](#) has affirmed that the dam would draw capacity only from existing dams, and that no other project is required.

Brazil's untapped hydroelectric potential is great but located far away from most customers. The project will require additional investment to build the transmission lines to connect Belo Monte with the national grid. The [auction](#) will take place in 2013, but former director of the Brazilian Electricity Regulatory Agency, Alfonso Henrique Moreira Santos has already warned about the [fragility of current infrastructure](#) which could hinder the transmission of electricity.

Legal issues

Indigenous rights

The Juruna, Xikrin, Arara, Xipaia, Kuruaya, Kayapó and other indigenous communities⁴ have repeatedly invoked the enforcement of their cultural and territorial rights, blaming the Brazilian authorities for the lack of

consultation as required in several national and international legal instruments.

[Article 231](#) of the 1988 Brazilian Constitution recognises that Indians are entitled to "original rights" in relation to the lands they occupy, while providing that the State should protect them and ensure respect for their property. Paragraph 3 states that relevant resources can only be exploited with the authorisation of the National Congress, after having consulted with the communities involved.

Brazil has also ratified [Convention 169](#) of the International Labour Organisation, entitling indigenous communities to have their say in the decision-making process before exploitation activities on their land begin.

Brazil is also subject - to different extents - to other relevant provisions⁵, such as:

- Universal Declaration of Human Rights
- American Convention on Human Rights
- International Covenant on Economic, Social and Cultural Rights
- International Covenant on Civil and Political Rights
- Additional Protocol to the American Convention on Human Rights in the area of Economic, Social and Cultural Rights
- Convention Concerning Indigenous and Tribal Peoples in Independent Countries
- United Nations Declaration on the Rights of Indigenous Peoples

Consultation of indigenous peoples

The Brazilian authorities claim to have taken an "[inclusive approach](#)", as the government's National Indian Foundation involved around 1 700 indigenous people in villages through over 30 meetings. In addition, government agencies have carried out more than 5 000 family visits and organised four public hearings in the affected municipalities.

Indigenous people, on the other hand, argue that [consultations were "unofficial"](#), that no access was given to remote

populations and that complete documentation (more than 20 000 pages) was only made available two days in advance, making it impossible for locals to read it all.

Moreover, a panel of experts determined that information was misleading and confusing, worded in a technical language not easy to understand for locals, with [many omissions](#) and inaccuracies especially in the environmental impact assessment. According to them, no translators were provided, and the [flow of information](#) was unidirectional instead of reciprocal, as required by a consultation.

The Minister of the Secretariat General of the Presidency Gilberto Carvalho recently admitted that many [mistakes](#) were made in the dialogue with indigenous communities.

Court cases conducted so far

Over the past decade, [many decisions](#)⁶ taken on the Belo Monte project have been overruled. Most of them concern the rights of indigenous people living in the Xingu region and therefore affected by the construction of the dam. More than 5 000 families would have to be resettled.

The first complaints were introduced in 2001. Federal judge D'Oliveira declared that the project touched upon indigenous lands and was therefore against the Constitution, since the National Congress had not had its say. The Regional Federal Tribunal and the Supreme Federal Tribunal then confirmed this decision.

In 2006 another action was brought against the legislative act authorising the dam's construction. The project was stopped until 2007 when the President of the Supreme Federal Tribunal suspended the decision, ordering consultations with local indigenous communities.

Other claims were filed on the environmental licensing process, since many stakeholders deplored, at various stages of the process, that the impact assessment was incomplete. A legal action was introduced

before the Tribunal of Altamira asking for the suspension of the impact assessment, but without success. Federal Judge Campelo stopped the licensing process, but that decision was then overruled by the Regional Federal Tribunal.

A new action was brought, at the end of 2009, against the findings of the environmental impact assessment. More hearings were deemed necessary by a Federal Judge, but again the Regional Federal Tribunal suspended the decision. The same happened to a federal decision aimed at blocking the licensing due to the social and environmental impact of the dam.

In February 2011, another lawsuit was filed against the partial installation licence, allegedly not allowed under the Brazilian Constitution. Judge Destêro [blocked](#) the project, but the Federal Regional Tribunal overturned the decision.

On 14 August 2012, construction was stopped when Judge Prudente ruled that indigenous peoples had [not been properly consulted](#). On 28 August 2012 the Supreme Federal Court ordered the [resumption of works](#), "to prevent damage to property, the administrative order, the economic order and Brazilian energy policy".

A complaint was also filed in 2010 by indigenous groups, religious leaders, NGOs and civil society, before the **Inter-American Commission on Human Rights of the Organisation of American States**. On 1 April 2011, the Inter-American Commission asked Brazil to [suspend all activities](#) in Belo Monte and conduct proper consultations with indigenous populations. Brazil protested against the non-binding decision, threatened to cut [relations](#) with OAS and temporarily recalled its envoy. Two months later the final [installation licence](#) was granted, with an explanatory note on changes made to the project for socio-environmental reasons.

EU companies involved

Several [EU companies](#) have been linked with the Belo Monte dam project.

Allianz, JLT Re, Kiln and Munich Reinsurance serve as **insurance companies**, with Munich Reinsurance covering 25% of the risk. This operation has attracted criticism, and the company was [dropped](#) from the Global Challenges Index's list of sustainability-oriented companies. [Shareholders](#) claimed that the operation violated internal guidelines.

Other EU companies are **supplying power equipment** to Norte Energia. [Alstom](#) is delivering hydro-mechanical equipment, monitoring systems and power transformers worth €500 million. [Voith Siemens](#) will provide generating units and protection systems, while [Andritz](#) will supply turbines and generators. An automated crushing plant will be furnished by [Metso](#), and [Iberdrola](#) also announced its involvement in the project. [Daimler](#) will deliver trucks and vehicles for construction. Engineering services will be provided by [Arcadis](#).

GDF Suez was also reported to be involved in the project, but then **withdrew** due to the [high risks](#) related to it.

Legislation applicable to EU companies operating in Brazil

It is impossible to [determine](#) *a priori* the law and forum applicable to EU companies. International private law provides that the law applicable to an agreement is that of the place where the agreement itself is concluded, but parties are free to derogate from this regime and choose the applicable law.

Role of EU institutions

The European Parliament, in its [Resolution](#) of 27 September 2011 on Dam Infrastructure in Developing Countries, has stated that dam construction must be assessed in terms of environmental impact and social costs,

mentioning the World Commission on Dams final report, entitled "[Dams and Development: a new framework for decision-making](#)".

The European Union has regular dialogues with Brazil on the issues of energy and environment. The exchange of ideas takes place within the 2008 [EU-Brazil Joint Action Plan](#) and the more specific [Regular Energy Policy Dialogue](#) and [High-Level Dialogue on the Environment Dimension of Sustainable Development](#), the last meeting of which was held in October 2012. It is also worth noting that the environment is one of the priorities of the Commission's [2007-2013 Country Strategy Paper for Brazil](#).

However, in a reply to a Parliamentary question, dated March 2010, EU High Representative Catherine Ashton stated that Belo Monte had [not been addressed](#) in such frameworks, since it is a national project on which the Brazilian government has not asked the EU for an opinion.

This statement was repeated in April 2013, when Ashton also specified that indigenous rights [are often discussed](#) with the Brazilian government, local civil society and indigenous peoples' representatives.

The EU is also active in the Xingu region, with several projects. Acting together with four local partners in the "[Shared forest governance in the Xingu Region](#)" project, the EU has disbursed €3.36 million (80% of the project) to contribute to sustainable management of waters and socio-environmental development. Another relevant project is that for the "[Consolidação de Unidades de Conservação na Região da Terra do Meio](#)": the EU is covering 63.94% of the project (€6.84 million). The rest is from the [Fundo Brasileiro para a Biodiversidade](#), in order to support biodiversity in 11 protected areas in the region between the Tapajos and Xingu rivers.

Main references

[Dam and be damned: the adverse impacts of Belo Monte on indigenous peoples in Brazil](#) / Jaichand, Vinodh, Sampaio, Alexandre Andrade, Human Rights Quarterly, 17 May 2013, 41 p.

[Acción gubernamental e institucionalismo en la Amazonia brasileña. El conflicto entorno a las infraestructuras hidroeléctricas](#) / Pont Vidal, Josep, Estudios Sociales: Revista de Investigación Científica, July - December 2010, Vol. 18 Issue 36, 24p.

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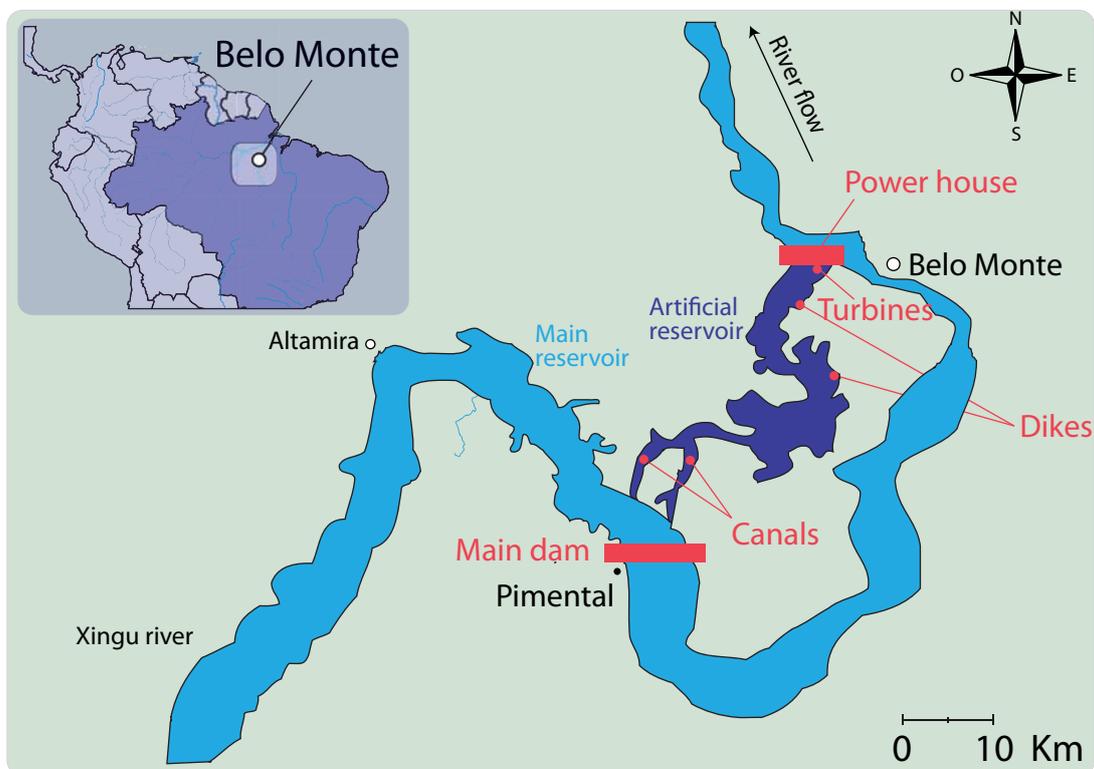
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<http://www.library.ep.ec>

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Annex: Map of the Belo Monte project



Source: EP Library, after [eKos Earthship](#)

Endnotes

- ¹ Norte Energia bid at R\$ 77.97 per MW/hr, beating a consortium led by Chesf (Companhia Hidro Eletrica do São Francisco), after two bidders - Camargo Corrêa and Odebrecht - withdrew due to social and environmental concerns. The auction is claimed to have lasted less than 10 minutes.
- ² For the detailed shareholding structure, please see the [consortium website](#).
- ³ Data from the Brazilian Ministry of Energy, for 2011. The US Energy Information Administration, cited in [The Economist](#), estimates it amounts to 78.8%.
- ⁴ For an overview of indigenous' statements against government plans, see [here](#).
- ⁵ The list is not exhaustive, only those referred to by commentators and stakeholders were included.
- ⁶ The summary of court cases is not exhaustive. Only the most important ones were mentioned. A more detailed overview of the cases can be found on the [Belo monte de violências](#) campaign site (Portuguese). For an overview in English, please see '[The Politics of Environmental Licensing: Energy Projects of the Past and Future in Brazil](#)', Kathryn Hochstetler.