Date: Nov. 28, 2011

To: Office of the United Nations High Commissioner of Human Rights (OHCHR)

From: Coalition of Non-governmental Organizations Concerned about Large Dams in the Brazilian Amazon – Interamerican Association for Environmental Defense (AIDA), Instituto Socioambiental (ISA), International Rivers, Sociedade Paraense de Direitos Humanos (SDDH), Justiça Global, the Movimento Xingu Vivo para Sempre (MXVPS), and the Clínica de Direitos Humanos e Direito Ambiental da Universidade do Estado do Amazonas (CDHDA)

Subject: Universal Periodic Review (UPR) civil society submission for Brazil, 2nd Cycle, 13th Session – Human Rights Violations caused by Large Hydropower.

I. Executive Summary

1. The undersigned coalition of organizations, in accordance with the guidelines established by the Human Rights Council, submit the following civil society report regarding human rights violations caused by large hydroelectric dam construction in Brazil. We request the OHCHR to include this information in the summary it prepares on the human rights situation in Brazil during the second cycle of the UPR.

2. This report summarizes a situation of systematic human rights violations caused by large hydroelectric dam construction in Brazil that ignores Brazilian and international law and standards. Specifically, we show how large dam construction ignores indigenous rights to free, prior, and informed consent and consultation, often relies on incomplete or faulty environmental impact assessments, and causes unreasonable harms to the health and lives of affected communities. This situation is further compounded by the absence of effective judicial remedies that could protect the human rights and environment of traditional communities.

3. To demonstrate this situation, this report examines four case studies of large dam construction in the Brazilian Amazon that have violated, or currently are violating human rights of affected communities. The cases are the Belo Monte dam in the Xingu River, Para State; the Santo Antônio and Jirau dams on the Madeira River, Rondonia State; the Tucuruí dam on the Tocantins River, Pará State; and the Tapajós Complex on the Teles Pires and Tapajós Jamanxim Rivers, Pará State. These cases represent a broader trend of improper large dam construction that, if carried out in the same manner as these cases, could potentially cause widespread human rights violations in the over 60 additional dam projects currently planned for the Brazilian Amazon region.[1]

4. The OHCHR should remind the Brazilian state of its obligation to comply with international human rights law when developing and implementing large dam projects. In particular, Brazil should comply with the Inter-American Commission on Human Rights' (IACHR) resolution of Precautionary Measures and protect indigenous communities affected by the Belo Monte dam, as described below.

[1] *See* Dams in the Amazon, http://www.dams-info.org/en.

II. Belo Monte

a) Description of the Project

5. The Belo Monte Hydroelectric Dam is under construction on the Xingu River near the town of Altamira, Para State. If built, the Belo Monte dam would be the third largest in the world, flood an area of over 516 km² and divert nearly 80% of the river's water, effectively drying out a 100 km stretch known as the *Volta Grande* (Big Bend). The consortium of companies constructing the dam estimate that the project will displace over 20,000 people, and the federal indigenous agency, the National Indian Foundation (FUNAI), predicts that at least two indigenous communities in the *Volta Grande* will also be displaced.

b) Failure to Comply with the IACHR's Precautionary Measures

6. Responding to an urgent request sent by affected communities, on April 1st, 2011, the Inter-American Commission on Human Rights (IACHR) published a resolution urging the State of Brazil to implement Precautionary Measures protecting the rights of 12 indigenous communities[2] threatened by the construction of the Belo Monte Dam.[3] Despite the urgent and serious threats the dam poses for the rights of these communities, the Brazilian government has refused to implement the IACHR's Precautionary Measures, and instead has assumed a confrontational and aggressive posture toward the IACHR,[4] pulling its candidate for Commissioner,[5] recalling its ambassador to the Organization of American States,[6] allegedly withholding its annual contribution to the OAS in protest,[7] and failing to appear at a Working Group Meeting during the IACHR sessions in October 2011. Despite the IACHR's reiteration of the Precautionary Measures on August 3, Brazil has yet to comply adequately with the IACHR resolution.

c) Lack of Free, Prior, and Informed Consultation and Consent

7. The communities of the Xingu basin have not been adequately consulted[8] prior to approval of the Belo Monte dam and have not given their free, prior, and informed

[2] The beneficiary communities include: Arara da Volta Grande; Juruna da Paquiçamba; Juruna do km 17; Xikrin de Trincheira Bacajá; Asuriní de Kaotinemo; Kararaô da TI Kararaô; Kayapó da TI Kararaô; Parakanã de Apyterewa; Araweté do Igarapé Ipixuna; Arara da TI Arara; Arara da Cachoeira Seca; and indigenous communities in voluntary isolation in the TI Ituna/Itatá.

[3] IACHR, Resolution on precautionary measures MC-382-10, April 1, 2011.

[4] The Ministry of Foreign Relations on April 5, 2011 publically rejected the resolution as being "unjustifiable" and "rash." Ministry of Foreign Relations, Press Release No 142, *Brasil considera medidas da OEA sobre Belo Monte "precipitadas e injustificáveis"*, Apri 5, 2011, *available at:* http://blog.planalto.gov.br/brasil-considera-medidas-da-oea-sobre-belo-monte-precipitadas-e-injustificaveis/.

[5] Ambassador Caseas has yet to receive orders from the government to return to his post in Washington, *see* Folha de São Paulo, *Dilma retalia OEA por Belo Monte e suspende recursos*, April 30, 2011, *available at:* http://oglobo.globo.com/pais/noblat/posts/2011/04/30/dilma-retalia-oea-por-belo-monte-suspende-recursos-376625.asp

[6] O Globo, *Vannuchi não é mais candidato á OEA*, April 13, 2011, *available at:* http://www.fazenda.gov.br/resenhaeletronica/MostraMateria.asp?page=&cod=714730

[7] O Estado de São Paulo, *Brasil não paga OEA por causa de Belo Monte*. Oct. 20, 2011, *available at:* http://www.estadao.com.br/noticias/impresso,brasil-nao-paga-oea-por-causa-de-belo-monte-,787892,0.htm The government has never officially confirmed or denied these allegations of not disbursing its annual contribution.

[8] *See, e.g*, UN Human Rights Committee (HRC), *Human Rights Guidelines on Development-based displacement*, U.N. Doc E/CN.4/Sub.2/1997/7 Annex, July 2, 1997, art. 16; HRC, *Guiding Principles on*

consent. The few public hearings held on the project presented many irregularities, were too few for the size of the affected population, and were restricted by the presence of the military.[9] The Brazilian State alleges that consultations with indigenous peoples are not required for Belo Monte because no actual indigenous reservation (*Terra Indígena*) will be flooded.

8. Also, affected communities did not have adequate access to information, as the complete environmental impact assessment (EIA) for the project was only available a few days before the hearings. Experts and government agents have since criticized the EIA for being incomplete (see below).

9. Moreover, the hearings were only held in towns, which are difficult to access for the majority of rural and indigenous communities directly affected by the project, many of whom must travel up to two days by bus or boat to reach local towns.[10] The government did not provide transportation nor lodging for participants from rural communities.[11]

10. The public hearings were also not culturally adequate for indigenous communities and there were no interpreters present for local indigenous languages. FUNAI also held a round of short meetings in indigenous communities to discuss briefly some aspects of the project. However, according to indigenous leaders, these meetings did not clarify doubts for community members (many of whom had never seen a dam before in their lives) and FUNAI officials misleadingly told indigenous peoples that the meetings were not a consultation process, and that actual consultations would occur later on.[12]

d) Forced displacement

11. According to official estimates, the dam will displace over 20,000 people including peasant farmers, traditional fishing villages, and residents of Altamira.[13] Experts have calculated that twice this number may be displaced and FUNAI has predicted that among the displaced persons will be two indigenous communities from the Volta Grande area, Juruna de Paquiçamba and Arara da Volta Grande, due to the drying out of the river there.[14] Although construction on the project is in the initial

Internal Displacement, Principle 7.3, U.N. Doc E/CN.4/1998/53/Add.2 Annex, Feb, 11 1998; Special Rapporteur on Adequate Housing, Miloon Kothari, Basic Guiding Principles on Development based Evictions and Displacements, par. 37, U.N. Doc A/HRC/4/18 Annex I, Feb. 5, 2007.

[9] *See* Federal Public Ministry, Public Civil Action complaint, April 7, 2010 in LISBOA, Marijane Vieira; ZAGALLO, José Guilherme Carvalho (eds.). *Relatoria nacional do direito humano ao meio ambiente: Relatório da missão Xingu sobre violações de direitos humanos no licenciamento da usina hidrelétrica de Belo Monte*. Curitiba: Plataforma Dhesca Brasil, April 2010. pag. 48-49.

[10] MAGALHÃES, S.; HERNANDEZ, F. (eds). *Painel de Especialistas: análise crítica do Estudo de Impacto Ambiental do Aproveitamento Hidrelétrico de Belo Monte*, Sept 29, 2009, pag 19 [hereinafter "Panel of Specialists"].

[11] *See* LISBOA & ZAGALLO, supra note 9, pag. 48-49.

[12] According to José Carlos Arara, leader of the Arara da Volta Grande: "we signed a document to prove that these were not indigenous consultations, but rather that they were finishing a report together with the community. Days later I go up to the FUNAI office in Altamira where picked up this DVD which is written here on front 'indigenous consultation.' I almost fell backwards when I actually saw what this was about and I learned that we had been deceived in our own village, within our own house." For interview, see: http://www.youtube.com/watch?v=zdLboQmTAGE

[13] Information available in:: http://www.inesc.org.br/noticias/noticias-gerais/2011/fevereiro/indigenas-vao-a-europa-criticar-belo-monte/.

[14] FUNAI Parecer Técnico no. 21/2010, de 30 de setembro de 2009.

stages, already there have been cases of forced evictions[15] and the government has not conducted detailed plans to determine (a) what families will be displaced; (b) when each family will be displaced; (c) criteria for indemnifying families; (d) when indemnifications will be paid; or (e) where families will be relocated; despite being required to do so by federal agencies and the Federal Public Ministry.[16]

e) Errors in the EIA

12. The EIA[17] developed for Belo Monte did not provide sufficient information for affected communities to fully understand the impacts the project will cause, thereby violating several international standards.[18] The studies omitted important information concerning potential impacts and appropriate mitigation measures to ensure the rights of affected populations. In response, a group of scientists, experts, and university professors formed a Panel of Experts,[19] and produced a report identifying gaps in the EIA's information, methodological inconsistency, and information that was misleading or misinterpreted.[20]

13. The technical teams of the Brazilian Institute for the Environment and Natural Resources (IBAMA, a federal agency) and FUNAI acknowledged flaws in the studies, namely, the lack of studies about the impacts on the Tircheira-Bacajá, Xipaya, and Kuruaya indigenous reservations,[21] the lack of information about the impacts to the Volta Grande region,[22] negligence in health risk assessments, underestimating migration flows,[23] and not fully understanding cultural loss to traditional communities.[24]

14. Due to these problems, both IBAMA and FUNAI established a list of 66 conditions that should have been complied before moving forward with the project.[25] Despite the fact that the majority of these conditions have yet to be complied with, IBAMA approved the licenses permitting construction on the project in 2011.

f) Violations of the rights to life, personal integrity, and health

a. Accumulation of toxic substances in the reservoir

15. With regard to health, the dam reservoir will likely accumulate excessive toxic substances such as mercury, chromium, nickel, lead, zinc, nitrates, E. Coli bacteria, and

[15] *See, e.g.* MXVPS, Press release, *Norte Energia toma terra de ribeirinhos à força sem pagar pela área e parte da produção*, Sept. 16, 2011. http://www.xinguvivo.org.br/2011/09/16/norte-energia-toma-terra-de-ribeirinhos-a-forca-sem-pagar-pela-area-e-parte-da-producao/
[16] Federal Public Ministry of Para, Public Civil Action complaint n°. 0001618-57.2011.4.01.3903, Sept. 21, 2011, p5.
[17] Environmental Impact Studies are required by Brazilian Law, Law 6.938/81, art 9, and Principle 17 of the Rio Declaration.
[18] *See, e.g.* Sources cited *supra* note 8; Convention on Biological Diversity, art. 14; Rio Declaration, Princípio 17.
[19] The Panel of Specialists is made up by 38 specialists from national and international universities and institutions. *See* Panel of Specialists, supra note 10.
[20] *Id*., pag 11.
[21] FUNAI, Parecer Técnico No. 21/2010, Sept. 30, 2009, pag. 67-68 & 97
[22] Id., pag. 95; IBAMA, Parecer No 06/2010, Jan. 26, 2010.
[23] The FUNAI criticized the EIA and pointed out that in the case of the Santo Antonio dam in Rondônia, Brazil, promoters predicted that up to 45,000 people would arrive at the height of the construction, but that number had been reached during Just the initial phases of construction. FUNAI Parecer Técnico 21 Sept. 20, 2009, pag 23.
[24] *Id*., pag. 36.
[25] IBAMA, Prior License No 342/2010, Feb 1, 2010, pg. 2-9.

pesticides and insecticides such as benzene, aldrin, dieldrin and glyphosate.[26] The accumulation of sediments and organic matter in the reservoir can cause a proliferation of algae on its surface, making the water unpotable, and increasing the presence of toxic cyanobacteria and metalmercúrio - extremely dangerous for the health of people and animals.[27] Thus far, the government has not installed new sewage and water treatment systems necessary for avoiding this outcome, demonstrating a total disregard for the rights to life, personal integrity and health of affected persons.

a. Increased vector borne disease and health risks

16. The Panel of Experts highlights that among the dam's main health impacts are the increase in vector borne diseases -- those transmitted by mosquitoes proliferating in still water, such as malaria and dengue. The report also predicts the proliferation of other diseases such as black fever, yellow fever, schistosomiasis (snail fever), philariasis, tuberculosis, leprosy, and intestinal parasites.[28]

g) Ineffectiveness of Judicial Remedies

17. In order to defend the rights and the environment of affected communities, from 2001 to 2011, the Federal Public Ministry of Pará filed fourteen Public Civil Action lawsuits against the project.[29] Although the dam's construction had already begun in March 2011, thus far only one of the fourteen lawsuits has reached a decision before a trial-level court. This lawsuit, alleging violation of indigenous rights to consultation, was finally ruled on by the appellate court level on Nov 9, 2011, after five years in the judicial system. The appellate level court ruled that indigenous consultations were not necessary and the case is waiting further appeal before the Supreme Judicial Court.[30]

18. The only judicial mechanism that could safeguard affected communities rights in this case while these fourteen lawsuits are ongoing, the *liminar* (temporary injunction), has proved completely ineffective. According to Brazilian law, since the State is the defendant in these cases, appellate courts have complete discretion to lift temporary injunctions without a legal basis. All of the injunctions requested by the Public Ministry on the Belo Monte dam have been lifted, some within a few hours of being granted. Given the lack of effectiveness of these injunctions, it is unlikely that there will be a final decision in any of the fourteen lawsuits before the project is finished.

[26] IBAMA, Parecer Tecnico nº. 114,pag 57-59.

[27] *See* McCULLY, P., *Silent Rivers*, pag. 45-46 (2004). Cyanobacterium is a class in the kingdom of bacteria that carry out oxygenic photosynthesis, and can be toxic to animals living in the same environment or that drink water containing it. Methylmercury is a toxin to the central nervous system that can accumulate in food chains. The high content of methylmercury in reservoirs is due to the feeding of bacteria on decaying plants and biomass. These bacteria convert the mercury found in soil in a safe form into toxic methylmercury. World Commission on Dams,, *Dams and Development: A new Framework for Makeing Decisions*, pag 121 (2000), *available in*: http://www.unep.org/dams/WCD/report.asp

[28] COUTO, R. C., SILVA, J. M. *As questões de saúde no estudo de impactoambiental do Aproveitamento HidroeléctricoBeloMonte*, in Panel of Specialists, *supra* note 10. pag. 81-90.

[29] For a summary of all the lawsuits filed by the Federal Public Ministry, *see* Federal Public Ministry of Para, Tabla de Acompanhamento, *available at:* http://www.prpa.mpf.gov.br/news/2011/Tabela%20de%20acompanhamento%20atualizada%20em%200410.pdf

[30] MXVPS, Press Release, TRF1 vota contra reconhecimento de direitos indígenas e MPF recorrerá ao STF, Nov. 9, 2011, *available at:* http://www.xinguvivo.org.br/2011/11/09/1701/

III. Santo Antônio and Jirau Dams

a) Project Description

19. The Madeira River[31] Hydroelectric Complex Project is central to the Peru-Brazil-Bolivia axis of the Initiative for Integration of Regional Infrastructure in South America (IIRSA). The project involves the construction of two large dams in the Madeira River, Rondonia state: Jirau, with an installed power of up to 3,300 MW, and Santo Antônio, with 3,150 MW. Both Jirau and Santo Antônio will be large dams, flooding at least 25,800 ha and 27,100 ha, respectively, and with retaining walls of 35.5 m and 60 m, respectively. Both dams are under construction and expected to enter operation in 2012.

b) Affected Communities

20. The construction of the Madeira River complex has negatively affected the lives and rights of many indigenous peoples and traditional communities that inhabit the area. Affected peoples include traditional fishing villages, indigenous peoples, extractive, rubber tappers, and peasant farmers, all who will lose access to traditionally occupied lands, thereby affecting their culture, subsistence practices, religious rituals and access to traditional medicines. According to the project's EIA, 1,089 indigenous people living in several different indigenous reservations will be affected due to increased risk of food safety, as well as increased rates of invasion by non-indigenous to extract natural resources and occupy lands.[32] In addition, the dam will affect indigenous people in voluntary isolation and at risk of cultural extermination.

c) Human Rights Violations

a. Lack of Public Participation and Free, Prior and Informed Consultation and Consent

21. Traditional and indigenous communities affected by the dams did not have access to adequate information or consultation procedures, and did not give their free, prior and informed consent to the project. Although people from Bolivia and several states in Brazil will be affected, public hearings were only held in the state of Rondonia, in the cities of Mutum, Porto Velho, Abunã and Aquariums. In these hearings there was also no real space for discussion on the feasibility of the project, clarification of doubts or a true process of public participation.

22. The project's EIA was also deficient and did not have information on the location of indigenous peoples living in voluntary isolation in the affected area, accurate data about the actual extent of flood hazard areas, alternatives to the project, nor a

[31] The Madeira River is the widest and most important tributary of the Amazon River due to its biodiversity. This river receives water from the Andes Mountains and contributes to 35% of the sediment flowing in the direction of the Amazon. The surface of the Madeira River basin has almost 125 million hectares, which constitutes almost 20% of the Amazon basin. The richness of sediments and nutrients that they receive the waters of the region, it is estimated that the area of the Madeira River is one of the most biologically diverse of all the Amazon basin. SWITKES, Glenn, *The Cornerstone of IIRSA*, in: SWITKES, Glenn & BONILHA, Patricia, *Águas Turvas: Alertas Sobre as Conseqüências De Barrar O Maior Afluente Do Amazonas*, p. 16, International Rivers (2008).

[32] For more information about the impacts of the Madiera River dams, *see* Plataforma Dhesca Brasil, *Violações de Direitos Humanos nas Hidrelétricas do Rio Madeira, Relatório Preliminar de Missão de Monitoramento*, April 2011, *available at:* http://www.dhescbrasil.org.br/attachments/449_2011_madeira_%20missao%20seguimento_revisao3.pdf

justification for the need to build the complex.[33] In addition, the National Water Resources Council (CNRH) never ruled on the project, despite its requirement by Brazilian law for a project that has repercussions beyond the scope of the states in which it will be located, as well as the possible impacts on Bolivian territory. [34]

b. Risks to human health

23. The project entails violations of the rights to a healthy environment, life and health due to the environmental impacts produced by the flooding and damming of the river. Stagnant water in the reservoir will increase cases of malaria, dengue, Bolivian hemorrhagic fever, and other diseases in the region.[35]

24. There is also a risk of mercury poisoning due to the high probability of mercury methylation in the flooded areas.[36] Mercury can accumulate in the dam's reservoirs, thereby aggravating the current situation of mercury pollution in the area from artisanal gold mines that dump mercury into the environment and also from a naturally high presence of mercury in the soil in the area.[37]

d) Environmental Impacts

a. Biodiversity

25. The construction of the complex will likely have a severe impact on the biodiversity of the region. The area surrounding the Madeira Complex has one of the highest levels of biodiversity and supports 750 species of fish, 800 species of birds and many endangered or undiscovered species.[38] Studies have estimated that 70% of existing fish species will disappear from the region within a year of finishing construction.[39] The project's construction is also increasing deforestation in the region, and one year after the first license was approved in 2007, studies reported a 600% increase in deforestation.[40]

b. Climate change impacts

26. Large reservoirs in tropical regions that flood large areas already covered in biomass, such as those that will be created by the Madeira Complex, are responsible for a major source of methane emissions, a highly potent greenhouse gas, from the rotting

[33] VILLEGAS N., Pablo, *Cuando el objetivo no es prever: Los estudios sobre los impactos de las represas del Río Madera en la salud*, in: CASTELLÓN QUIROGA, Iván, ENERGÍA, *Represas y Salud: La Problemática de las Represas en la Cuenca del Río Madera*, p. 38, La Paz, Bolivia: Artes Gráficas Sagitario (2009).

[34] Law No. 9.433, Art. 35(III), Federal Republico f Brazil, Jan. 8, 1997.

[35] VILLEGAS N., *supra* note 33

[36] *See* McCULLY, Patrick, *supra* note 27, pag. 45-46; LA ROVERE, E. L. e MENDES, F. E., *Tucuruí Hydropower Complex Brazil*, pp. 69-70, Case Study of the World Commission on Dams (2000). The high levels of methylmercury in reservoirs is due to feeding of bacteria on decaying plants and biomass, the bacteria convert the mercury found in a harmless form in the soil into toxic methylmercury. *Id*, p. 121.

[37] PERÉZ, Tamara et al., *Sensibilidad del Norte Amazónica a la contaminación por el Mercurio*, in CASTELLÓN QUIROGA, Iván, ENERGÍA, *supra* nota 33, pp. 50.

[38] At least 33 of the species registered in the EIA are on the list of the Convention on International Trade in Endangered Species (CITES). LISBOA, Marijane y NEVES BARROS, Juliana, *Violações de Direitos Humanos Ambientais no Complexo Madeira*, p. 9 &27, Relatora Nacional para o Direito Humano ao Meio Ambiente, São Paolo (2008).

[39] PIMENTEL, Spensy, *Ambientalistas temem impacto ecológico das usinas*, AGÊNCIA BRASIL, Sept. 2, 2006, (citing Aléxis Bastos from the NGO Rio Terra) *available at*: http://www.agenciabrasil.gov.br/noticias/2006/09/02/materia.2006-09-02.1783909823/view.

[40] *Madeira Dam Project Threatens the Largest Tributary of ihe Amazon*, in IDB Watch, No. 2, pg. 5, April 5, 2008.

vegetation.[41] These impacts to climate change, which will be quite significant, were not taken into account in the EIA nor the approval of the Madeira Complex.

e) Lawsuits against the Project

27. Since November 2008, human rights and environmental organizations and the Federal Public Ministry have presented several Public Civil Action lawsuits against the dam project.[42] The actions allege, among other things, a breach of the EIA, the non-compliance with the Preliminary License, lack of application of the precautionary principle, lack of resolution of the National Water Resources Council and lack of congressional authorization. Thus far, none of these lawsuits has been successful and all injunctions against the dam have been lifted.[43]

IV. Tucuruí

a) Project Description

28. The UHE Tucuruí on the Tocantins River, Southeastern Pará state, began in the 1970s in order to subsidize use of energy for the aluminum industry.[44] The dam was designed for a maximum flow of 100,000 m³/s, with a reservoir that flooded an area of 2,850 km².[45] The dam's poor planning has led to a serious reduction in the quality of water, doubled the local population, provoking problems in the region's insufficient health infrastructure, increased rates of malaria, decimated fish populations, and forcefully displaced indigenous communities, among other problems. Despite being in operation for several years, the problems caused by the dam have not been properly investigated nor have there been compensation for victims.

b) Indigenous Communities Affected

29. The Tucuruí dam most severely affected the Parakanã, Asurini and Gaviões da Montanha indigenous peoples. The Parakanã had 38,700 hectares of its territory flooded, leading to the forced displacement of 247 people without their free, prior and informed consent. The relocation process was full of delays and mishandlings, with different parts of the community removed over a period of five years. Several families eventually left the resettlement area due to its inadequacy, leading to the disruption of their unity as a community.[46]

30. The Asurini people were located down-river from the Tucuruí dam, and therefore were not considered directly affected by the project. However, they were affected by the massive arrival of migrants looking for work, as well as by other

[41] CASTELLÓN QUIROGA, Iván, *supra* note 33, p. 22.
[42] *See* AIDA, *Grandes Represas em América: ¿Pero el remédio que la enfermedad?*, p. 59 (2009), *available at:* http://www.aida-americas.org/sites/default/files/InformeAIDA_GrandesRepreseas_BajaRes_1.pdf
[43] For information on the latest injunction lifted, *see*, Observatorio Eco, Justiça libera linhas de transmissão de Jirau e Santo Antonio, April 16, 2011, *available at*: http://www.observatorioeco.com.br/justica-libera-linhas-de-transmissao-de-jirau-e-santo-antonio/
[44] The company hás since been privatized, and is now known as Cia Vale do Rio Doce. SDDH. *Criminalização dos movimentos sociais: O caso dos Atingidos por barragens na Amazônia Brasileira*. pg. 1, *available at*: http://www.sddh.org.br/comite.html.
[45] *See* La Rovere, E.L. and Mendes, F.E., *Tucuruí Hydropower Complex, Brazil*, pg. 7, (2000) A WCD case study prepared as part of the World Commission on Dams report.
[46] *Id.* pg. xvi

affected people resettled by the dam. Eletronorte, the State-owned company leading the project's construction, did not provide adequate assistance to the Asurini people for the damages they suffered, citing a lack of funds, and the Asurini have not been properly compensated to date.[47]

31. The Gaviões da Montanha people were removed from their traditional lands to an adjacent area, a process which caused psychological harms and involved threats to their physical integrity. In a lawsuit filed against Eletronorte claiming psychological and material damages for injury, pain and suffering, the Brazilian courts ruled in favor of Eletronorte.[48]

c) Human rights impacts

a. Social impacts

32. The economic and social impacts in the region of Tucuruí were greater than expected by project's proponents, affecting the livelihoods and the social, economic, and cultural development of rural populations. In total, more than 14,000 people were displaced to make room for the dam's massive reservoir, further exacerbating pre-existing social problems.[49] In addition, the rural communities most affected by the dam have still not benefited from the electricity produced by the dam and have yet to be connected to the electric grid.

b. Uncontrolled Migration

33. Thousands of workers migrated to the region with the promise of jobs from the construction of the dam, doubling the population in ten years and resulting in the creation of slums. With the completion of Phase I of the project in 1984, the region suffered a sudden and massive unemployment problem, causing rural homelessness and creating a climate of social disintegration.[50]

c. Forced displacement

34. The government of Brazil issued Decree no. 78659 of November 11, 1976, declaring the area of Tucurui of public interest and opening the possibility of expropriating lands. Thereafter, INCRA carried out the relocation process by forcefully displacing affected families and arbitrarily assigning compensation, generating conflicts between Eletronorte and affected fishing villages, settlers along the Transamazonic highway, and urban residents affected by the dam. Eletronorte only agreed to compensate families for material improvements made on their lands, thereby ignoring the cultural, symbolic, social and historical value of the flooded areas. In total, the Tucuruí dam displaced between 25,000 and 35,000 people.[51]

d. Human Health Impacts

35. The Tucurui dam's negative health impacts include outbreaks of diseases such as malaria, industrial accidents, cases of alcoholism and sexually transmitted diseases, and increased infant mortality.[52]

[47] *Id.*
[48] *Id.* pg. xvii.
[49] *Id.* pg. xiii.
[50] *Id.*
[51] *Id.* pg. xiv.
[52] *Id.*

36. The dam's reservoir has also caused the accumulation of high levels of mercury, principally due to gold mining activity in the area. There are still no conclusive studies about the dam's affect on the concentration of mercury in the reservoir. However, one study conducted by Finnish scientists showed that residents who ate fish from the reservoir, while having only a low level-risk of neurological damage from mercury poisoning, had mercury levels higher than those of other communities who consumed less fish from the reservoir.[53]

37. With the construction of the reservoir and the influx of migrants to the area, there have been outbreaks of mosquitoes as vectors of diseases such as malaria. In 1984 there were 10,000 cases of malaria in the region of Tucuruí, related to the construction and operation of the dam, according to entomological studies conducted by the National Institute for Amazonian Research (INPA).[54] The filling of the reservoir also caused the proliferation of flies in the area that plagued local communities.[55]

d) Environmental Damage

38. The dam's construction also caused severe impacts on the region's biodiversity, preventing the reproduction of several fish species and affecting other plant and animal species as well.[56] En total, 12 fish species died out in the area of the project, representing a loss of 28% of the species present in the reservoir and 18.8% of the species downstream.[57] In addition, there were drastic impacts on terrestrial biodiversity, including various types of mammals, such as marsupials, primates, cats, etc.[58]

V. Tapajós Hidroeletric Complex

39. The Tapajós complex is planned for the Tapajos River basin and will dam the Teles Pires and Tapajós Jamanxim Rivers, Pará state. A total of eleven (11) hydroelectric dams (five in Teles Pires and six in Tapajós) proposed in the project will affect neighboring Muduruku,[59] Apiacás,[60] and Kaiabi[61] indigenous reservations and threatens to permanently change the region's social and environmental conditions.[62]

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[53] *Id.* pg. xv.
[54] *Id.*
[55] *See* TADEI, W.P.. .*O Gênero Mansonia (diptera: culicidae) e a proliferação de mosquitos na Usina Hidrelétrica de Tucuruí.*. In: *Energia na Amazônia*, MPEG/UFPA/UNAMAZ (1996); SDDH, *Criminalização dos movimentos sociais: O caso dos Atingidos por barragens na Amazônia Brasileira*, pg. 1.
[56] For more information on these impacts, *see* FEARNSIDE, P. M., *Impactos ambientais da barragem de Tucuruí: Lições ainda não aprendidas para o desenvolvimento hidrelétrico na Amazônia*, (2002) pg. 04; SDDH, *Criminalização dos movimentos sociais: O caso dos Atingidos por barragens na Amazônia Brasileira.*
[57] La Rovere, E.L. and Mendes, F.E. *supra* note 45, pg. 60.
[58] *Id.* p. xii.
[59] For more information on, *see* ISA, Povos Indígenas no Brasil, Munduruku, http://pib.socioambiental.org/pt/povo/munduruku/795
[60] For more information on, *see* ISA, Povos Indígenas no Brasil, Apiaka http://pib.socioambiental.org/pt/povo/apiaka
[61] For more information on, *see* ISA, Povos Indígenas no Brasil, Kaiabi http://pib.socioambiental.org/pt/povo/kaiabi/273
[62] Agência Nacional de Águas (ANA), *Plano Estratégico de Recursos Hídricos da Bacia Amazônica – Afluentes da Margem Direita (PERH-MDA)*, Vol. 1, Ch 15, pg 62-63, June 29, 2011, *available at:* http://margemdireita.ana.gov.br/default.asp.

40. The Tapajós Hydroeletric Complex represents another example of the federal government's strategy to circumvent indigenous rights to free, prior and informed consultations and consent in large dam projects. Between 2007 and 2011, the federal government has adopted a series of decisions aimed at defining the number and location of power plants in the Tapajós basin. Yet despite the project's obvious impact on approximately 12,000 indigenous people, the government has yet to hold indigenous consultations or allow indigenous peoples to participate in the planning process.[63]

41. One of the Complex's dams, the São Manoel dam,[64] will be built less than two kilometers from the Kaiabi reservation on the Teles Pires River, and clearly illustrates how the government ignores indigenous peoples' rights to decide on the development and future of their territory. The São Manoel dam will likely cause direct impacts on the Kaiabi and Muduruku Reservations, as well as on indigenous communities living in voluntary isolation.[65] However, the government has not allowed these peoples to participate in the project's decision-making process, alleging it is not necessary because the project will not flood their reservations.

42. The Kaiabi, Apiacás, and Muduruku peoples only learned about the Tapajós Complex when the project's environmental permits were already being issued and there was no longer any chance to discuss the impacts on their territories.[66] As a result, the project's EIA have numerous problems, including a lack of information about cumulative impacts of all 11 dam projects on the rivers.[67] Instead of restarting the planning process to include the participation of affected communities, the government merely offered to negotiate the mitigation and compensation programs, arguing the decision to build the Complex was already taken and could not be renegotiated.

43. This lack of transparency and dialogue led the Muduruku and Kaiabi leaders to detain federal officials in their territory until the government agreed to a hearing between the communities and the Minister of Justice and the President's Office to discuss the case. Although they were finally granted a hearing with the government and signed an agreement on Nov 3, 2011, indigenous leaders subsequently denounced the government's lack of transparency and failure to fulfill its agreement to start a consultation process.[68] So far the federal government has not taken any further steps to

[63] Ministério de Minas e Energia, "*Plano Decenal de Energia 2019*". pg 68, *available at:* http://www.mme.gov.br/mme/galerias/arquivos/noticias/2010/PDE2019_03Maio2010.pdf

[64] According to the project's EIA: "The São Manoel plant does not interfere directly with indigenous lands, that is, it does not flood land currently marked or declared by FUNAI. The project is located, however, less than 2km from the border of the TI Kaiabi reservation and about 54km from the village Kururuzinho, the principal settlement of the indigenous community. Due to this reason, and also because of the existence of the Munduruku reservation about 150 km downstream, and evidence of the presence of isolated Indians (Pontal dos Apiaká reservation), we performed a study of the Indigenous component of the UHE São Manoel." EIA, Pag 49-51 *available at*: http://siscom.ibama.gov.br/licenciamento_ambiental/UHE%20PCH/S%C3%A3o%20Manoel/RIMA%20Final.pdf

[65] Terra For a map of the area: http://pib.socioambiental.org/caracterizacao.php?id_arp=5001

[66] Letter from the Kaiabi, Muduruku and Apiacás people denouncing the lack Fo information about the plans to dam the Rivers that pass through their traditional territory with 11 hydroelectric dams. *Available at:* http://www.socioambiental.org/nsa/detalhe?id=3437

[67] *See, Planejamento energético para o rio Teles Pires na Amazônia*, available at:http://www.epe.gov.br/MeioAmbiente/Documents/Rimas/Rima%20-%20UHE%20Teles%20Pires.pdf

[68] Federal Public Ministry of Para, Press Release, *Índios acusam governo de descumprir acordo sobre audiências de hidrelétrica no Teles Pires*, Nov. 17, 2011 *available at:*

consult with affected indigenous peoples or start a consultation process as required by international law.

VI. Conclusions and Recommendations

44. Based on the above information and to ensure the effective protection of human rights in Brazil, including the guarantee of the right to a healthy environment, life, health, integrity, public participation and access to justice and information, we recommend that the State of Brazil:

- Comply with the IACHR's Precautionary Measures MC-382-10 and protect the rights of indigenous communities affected by the Belo Monte dam;
- Hold free, prior, and informed consultation proceedings with all indigenous peoples affected by large dams, even if indigenous reservations are not flooded by the project;
- Before approving any license for a dam project, ensure that the project's EIA addresses all environmental and social impacts and that all affected peoples are able to participate its elaboration and review;
- Ensure that adequate protections for the rights and environment of affected communities are in place before approving and licensing a dam project.

Sincerely,

Interamerican Association for Environmental Defense (AIDA)

Instituto Socioambiental (ISA)

International Rivers

Sociedade Paraense de Direitos Humanos

Justiça Global

Movimento Xingu Vivo para Sempre (MXVPS)

Clínica de Direitos Humanos e Direito Ambiental da Universidade do Estado do Amazonas (CDHDA)

http://www.prpa.mpf.gov.br/news/2011/indios-acusam-governo-de-descumprir-acordo-sobre-audiencias-de-hidreletrica-no-teles-pires