

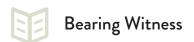
# Bearing Witness



RELATED FROM-THE-FIELD ESSAY

"On the Big Bend of the Xingu River"

BY NINA WEGNER



# (1)

Class: 60 minutes

### Key Idea

Hydropower and other energy projects often have serious consequences that affect ecosystems and the communities that rely on those ecosystems. Many negative consequences can be avoided when a potential energy project begins with a fair assessment of available options, includes the participation of affected communities, and adheres to strict social and environmental guidelines.

# **Background**

The Belo Monte dam is one of a series of megadams being developed by the Brazilian government to stimulate the country's economic growth and to bolster the nation's energy security. When built, the dam would be the third largest in the world. It would also dry up parts of the Xingu River, a major tributary of the Amazon; flood a large area of the Amazonian rainforest; and displace some 20,000 people, including 1,000 indigenous people from several communities. Opponents of the dam have raised concerns about both its economic viability and its impacts on the region's people and environment.

While this essay centers on the Belo Monte dam, it is but one example of many hydropower projects currently being developed around the world. Technically considered renewable energy, hydropower nevertheless can have long-term impacts on the landscape, water supply, flora and fauna, and local communities.

### **Connections to National Standards**

Common Core English Language Arts. RH.11-12.2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationship between the key details and ideas.

College, Career, and Civic Life (C3) Framework for Social Studies State Standards. D2.Geo.6.9-12. Evaluate the impact of human settlement activities on the environmental and cultural characteristics of specific places and regions.

#### **SUBJECT AREAS**

#### **HIGH SCHOOL**

- Anthropology
- Environmental Science
- Modern World Studies

#### COLLEGE

- Cultural Anthropology
- Environmental Studies
- Geography
- Sociology

#### **THEMES**

- Consequences of development
- Individual rights versus the collective good
- · Bearing witness

#### **MATERIALS**

- Printed copies of the story, one per student (or access to the story online)
- · Blank sheets of paper

#### **PREPARATION**

Make copies of the story.
 Students will read the article as homework.

# Bearing Witness

Next Generation Science Standards. HS-LS2-7. Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.

#### Lesson

#### SETTING THE STAGE

Explain to students that as our perceived need for energy escalates, governments around the world are building hydroelectric dams to produce more electricity. Some of these dams are so massive that they will likely have devastating impacts on the environment and the local communities. Point out that this story was written by a woman who goes to Brazil to document one such project because she believes that bearing witness can make a difference. Ask students whether they can think of an instance (either historical or personal) where "bearing witness" helped shape the outcome. Is "bearing witness" enough to make a change?

#### ENGAGING WITH THE STORY

As they read, instruct students to create a concept map showing the consequences of building the dam that is identified in the story. In the center of a blank sheet of paper, they should make a circle with the words, "Building the Dam." They should then add a circle for each consequence around the center circle, drawing lines to link related consequences.

### **Delving Deeper**

- 1. Ask students to identify the various players or points of view in the essay, and write them on the board. Encourage students to name people such as the fishermen, the company (Norte Energia), the Brazilian president (Dilma Rousseff), the local indigenous people, the land speculators, and foreign advocates, as well as the native fish and the river ecosystem.
- 2. Lead a discussion about the story, asking such questions as:
  - Assuming that Brazil needs more electricity to maintain its current lifestyle, who will benefit most from the new dam?
     Who will suffer the most?

# Bearing Witness

- Which players seem to have the greatest power in the dam project?
  Which seem to have the least power?
- Should those negatively affected by development have a voice in the process? How much of a voice?
- How can the needs of plants, animals, and ecosystems be voiced?
  How much sway should their needs carry?
- How do we decide where to draw the line between individual rights and the collective good? Is it ever possible to find a satisfactory balance?

## Reflecting and Projecting

Give students one of the following reflective writing prompts to demonstrate their understanding of the story:

- Is there any "win-win" alternative to building the dam that would meet the people's energy needs and preserve the environment and culture around the Xingo River? (For example, people and companies might change how they use energy or decrease the amount of energy they require.) (NGSS.HS-LS2-7)
- 2. What might the author mean when she says, "The simple act of listening can shape the future"? Do you agree? Explain how bearing witness can make a difference for a particular project such as this. Does listening and bearing witness alone create change? Share examples from other sources and life experiences to support your argument. (CCSS.ELA.RH.11-12.2)

#### Resources

Amazon Watch, "Brazil's Belo Monte Dam."

"The Rights and Wrongs of Belo Monte." The Economist, May 4, 2013.

Vanishing Cultures Project, "The Xikrin-Kayapó: People of the Big Water."