



The Damming Evidence

CDE Pilot Lesson

All Students, All Standards,
Instructional Strategies

Lesson: The Damming Evidence

- **Goal:** A decision needs to be made for building a new mega-dam
- **Role:** You are a consultant with expertise in hydroelectric energy
- **Audience:** Mekong River Commission (MRC)
- **Situation:** MRC needs advice on whether to move forward on building this dam...or not
- **Product:** Your



The Damming Evidence

Guiding Questions:

- What *economic, environmental, and social* factors should be taken into account when building a dam?
- What are the costs, benefits, and impacts of building this dam?



The Damming Evidence



- “A number of mega-dams are in the planning stages of building along the Mekong River.
- Laos, Vietnam, Thailand and Cambodia make up the Mekong River Commission (MRC) and collectively have ordered a **scoping study of other mega-dams** in order to understand the **environmental** and **economic impacts** for its planning purposes.”

Here is your “Letter of Invitation”

Dr. Pham Tuan Phan, Chief Executive
Officer

Mekong River Commission Secretariat
Office of the Secretariat in Vientiane

To: DHI Group, Denmark

From: Mr. Pham Tuan Phan, MRC
Secretariat

Re: Consulting services on the “Delta
Project” for the Mekong River
Commission on Dams (MRC)



Your Task

- As an expert, you will:
 - analyze data
 - justify the reasoning
 - make recommendations to the Mekong River Commission
- You will review **one** of the three case studies of large-dam projects:
 - the Three Gorges Dam on the Yangtze River in China
 - the Aswan High Dam on the Nile River in Egypt.
 - The Colorado River
- Review them for their **social, economic and environmental costs and benefits**



Move to Expert Teams

- **Aswan #1:**
 - Sam
 - Angelina
 - Trina
 - Cheyanne
- **TGD #1:**
 - Tiffanie
 - Taylor
 - Steven
 - Matthew
- **Colorado #1:**
 - Aaron D.
 - Addie
 - Stephanie
 - Jessica
- **Aswan #2:**
 - Brayan
 - Hope
 - Danielle
 - Derrick
- **TGD #2:**
 - Tori
 - Aaron R.
 - Cheza
 - Kyle
- **Colorado #2:**
 - Tim
 - Clint
 - Sara

TGD: Three Gorges Dam

Instructions



- **Step 1:** In your “**expert team**” sort and prioritize for a quick analysis of costs and benefits of building dams
- **Step 2:** Look in BbLearn: Session 9 and individually read/take notes on the graphic organizer on your assigned mega-dam.
- **Step 3:** As a group agree on the major cost/benefits of your assigned mega-dam.
- **Step 4: You will move into your jigsaw team.** Take your notes with you. Discuss your findings and, as a group, come to consensus on a recommendation **with your justifications** for or against building a new mega-dam on the Mekong River.

Costs and Benefit Analysis

Step 1:

- What is the “trade-off” between **sustainability** and **economic development**?
- Sort the cards according to the priority of the costs and benefits of building a megadam



- **Step 2:** Go to *BbLearn: Session 9* and individually read/take notes on your assigned mega-dam on the graphic organizer.
- **Step 3:** As a group agree on the major cost/benefits of your assigned mega-dam.
- You have 12 minutes



Step 4: Move to Jigsaw Teams

Table One

- Sam Aswan #1
- Brayan Aswan #2
- Tiffanie TGD # 1
- Tori TGD #2
- Aaron D. Colorado #1
- Tim Colorado #2

Table Two

- Angelina Aswan #1
- Danielle Aswan #2
- Taylor TGD # 1
- Cheza TGD #2
- Addie Colorado #1

Table Three

- Trina Aswan #1
- Hope Aswan #2
- Steven TGD # 1
- Aaron R. TGD #2
- Stephanie Colorado #1
- Clint Colorado #2

Table Four

- Cheyanne Aswan #1
- Derrick Aswan #2
- Matthew TGD # 1
- Kyle TGD #2
- Jessica Colorado #1
- Sara Colorado #2



- In your jigsaw team, develop a report for Vietnam: 10 minutes
 - Should the Mekong River Commission move forward in building mega-dams?
- As the consultant, you must take a position.
- Use your essential question: What are the potential costs and benefits of dam building in regards to the economy, society, and the environment?”

Recommendation



- Share and justify.
- How did you come to your decision?
- How did you evaluate the different costs and benefits?
- What challenges will you still make as a result of your decision?

The Outcome



- “A major new study warns that a planned cascade of hydropower dams along the Mekong River could cause “very high adverse effects on some of the key sectors and environmental resources in Cambodia and Vietnam.”

The Diplomat, April 6, 2016

Reflection: Think-Pair-Share

- What was real about this process?
- What felt artificial about this learning event?
- If you were officially commissioned to make this dam recommendation what else would you need to know?

