

Thailand: Water Buffalo Tractor
NewsDepth September 18, 2008
Classroom Activities



(photos.uncdf.org/.../detail.np/detail-78.htm)

Overview:

In Thailand, rural farmers are going back to basics ... and that means using buffaloes to plow their fields. Over the past few decades Thai farmers gradually moved away from using animals choosing to use tractors instead. Tractors provided a faster, more efficient means of farming, but the high price of oil has led many farmers to take a deliberate step backwards. Machines are much more expensive to run meaning that buffalo are back in demand. Students will learn more about the changing role of the water buffalo in Thailand. They will draw a comparison between the Thailand Buffalo and the American Buffalo. They will also investigate and make suggestions for high fuel cost alternatives in our own country.

Subject Matter: Science, Language Arts

Students should be able to:

Science Standards:

Develop processes to solve problems and understand that problems may be solved in several ways.

Explain how decisions about the use of products can result in desirable or undesirable consequences.

Analyze how humans cause changes in their ecosystems, and how these can be beneficial, neutral or detrimental.

Language Arts Standards:

Compare and contrast important findings and select sources to support central ideas.

Grade Level: 5-6

Activities:

1. Activity #1 Short comprehension quiz on the Water Buffalo. (10 minutes)
 - What country is returning to its use of the water buffalo for farming?
Answer: Thailand
 - Why are farmers stepping backwards using buffalo instead of the tractor?
Answer: The high price of oil
 - What challenge does all of this mean to buffalo breeders?
Answer: They can't meet the demand. There is a 3 year waiting list for a trained buffalo.
 - What are 2 of the three benefits of using buffalo for farming?

Answer: 1. cheap to run 2. don't break down 3. fertilize as they go
<http://www.wviz.org/index.php/education//newsdepth/index.html> Link to NewsDepth

2. Activity #2 Comparison between the water buffalo from Thailand and the American buffalo. (30 min. to a class period)

- What kind of farming is done in Thailand? Major crops?
- What are the characteristics or qualities of the water buffalo that make it a desirable animal for farming in Thailand?
- The following websites provide insight into the answer to these questions:

http://www.chiangmai-chiangrai.com/water_buffalo-traditional_tractor.html

Thailand's traditional tractor: the Water Buffalo

<http://iluvthailand.wordpress.com/2007/06/> Water Buffalo a Traditional Sight in Thailand.

<http://enews.mcot.net/view.php?id=5430> Thai farmers going back to buffalo for farming.

<http://nyenoona.wordpress.com/2008/02/22/laos-water-buffalo/> Several pictures

- Assign the students to write a two paragraph comparison between the two animals. Have them research the difference and return the next class period with their papers: Consider the following:
 - What are the differences between the Water Buffalo and the American Buffalo or bison? Can bison be used in farming? Why or why not? How is the American Buffalo used differently from the Water Buffalo in Thailand?

http://en.wikipedia.org/wiki/American_Bison

<http://www.nhptv.org/natureworks/americanbison.htm> Nature Works article

- The Water Buffalo is being brought back in Thailand for farming. How does this differ from the reasons the American Buffalo or bison has been brought back?

<http://www.pbs.org/wnet/nature/buffalo/strength.html>

3. Activity #3 What's your Alternative? (30 minutes)

- Farmers in Thailand have come up with a solution to the high price of oil by using what they consider to be the best alternative – water buffaloes.
- The high price of oil has consumers in our country in a tizzy. Discuss what aspects of our lifestyle have suffered the most by skyrocketing fuel prices. Have students choose a partner or assign a small group to come up with alternatives that parallel what the farmers in Thailand are doing.

Handout #1

Examples: high automobile gas prices: riding horses again. High fuel costs: wind turbines (these don't have to be original ideas)

- What are the challenges to the suggested alternatives? Are they feasible? Would they actually save money? What do you see as the biggest differences between an American consumer and a Thai farmer?

What's your
Alternative?



Present use of Oil or Fuel	Idea for Alternative	Challenges to Overcome