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The Vanishing Rainforests of Indonesia: An Examination of Indonesia's Life Changing Problem

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http://www.mnn.com/sites/default/files/main_forest_2.jpg

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THE VANISHING RAINFORESTS OF INDONESIA: AN EXAMINATION OF INDONESIA'S LIFE CHANGING PROBLEM

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Grade Level: 6th – 8th Grade

Purpose/Objective:

Students will discover the reasons for deforestation. They will compare and contrast the effects of this process by looking at the good and the bad. They will locate areas in the world affected by deforestation and examine more specifically the affect this process is having on Indonesia and what the population is doing to remedy the situation.

National Geography Standards from *Geography of Life*

Geographic Elements & Standards:

The World in Spatial Terms --

1. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information

Physical Systems --

8. The characteristics and spatial distribution of ecosystems and biomes on the Earth's surface

Environment and Society --

14. How human actions modify the physical environment
15. How physical systems affect human systems

Oklahoma Academic Standards for the Social Studies:

Grade 7 World Geography: Eastern Hemisphere

Literacy Skills Standard 1: The student will develop and demonstrate Common Core Social Studies reading literacy skills.

A.3. Identify key steps in a text's description of a process related to history/social social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).

C.7. Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.

Literacy Skills Standard 2: The student will develop and demonstrate Common Core Social Studies writing literacy skills.

A.2. Write informative/explanatory texts, including the narration of historic events, scientific procedures/experiments, or technical processes.

f. Provide a concluding statement or section that follows from and supports the information or explanation presented.

Content Standard 5: The student will analyze the interactions of humans and their environment in the Eastern Hemisphere.

2. Evaluate the effects of human modification of and adaption to the natural environment including the
 - A. Deforestation of Indonesia's rainforests

Geographic Themes: Human Environment Interaction, Place, Region

Objectives:

1. Students will examine what deforestation is and what the causes and effects are by creating questions from information in an article that explains this process.
2. Students will locate on a recent world map the rainforests that are in the most extreme danger from deforestation and note any similarities.
3. Students will locate Indonesia on the world map and label it.
4. Students will create a "T" chart to organize the causes and effects of deforestation in Indonesia.
5. Students will design a propaganda poster dealing with the rainforests of Indonesia and deforestation with appropriate illustrations.

Materials:

1. Computer and LCD projector (or equivalent)
2. Internet connection
3. Copies of the "Tropical Deforestation" article for each student
4. World Map
5. Map of Indonesia
6. Copies of the *Nystrom Classroom Atlas*
7. Deforestation Index 2012 Map
8. "Indonesia, Climate Change, and Rainforests" to project
9. Construction Paper
10. Notebook Paper
11. Colored Pencils/Markers
12. Pencil

Time Frame: 2 class periods

Procedures:

Day 1

1. Ask students to identify what a tropical rain forest is and ask them to name any that they know of in the world.
2. Distribute the "Tropical Deforestation" article to students and read aloud as a class. Have students highlight important pieces of information they feel would make a good question.
3. After reading the article, have each student write one question that s/he would consider important to know from the information in the article. ("What is deforestation?" is NOT acceptable!)

4. Have each student read aloud his/her question and compile these questions to create a worksheet for students to complete. [Of course, don't right down duplicate questions.]
5. Analyze these questions once all have submitted their questions. Have a group discussion on which are good questions (because they can be answered by facts in the article, etc.) and which are not (because they are too simple or require further research beyond the article, etc.). Be sure to add questions about important information that students may have missed. This is teacher discretion. [Refer to the list of questions at the end of this lesson to be sure certain questions have been created.]
6. At the end of the Day 2, have students complete the worksheet they created.

Day 2

1. Review the definition of the term desertification.
2. Distribute a world map to the students. A map of Indonesia can be copied on the backside for use later in this lesson.
3. Display the "Deforestation Index 2012" map on the projector. Ask students to analyze the different colors on the map and name some of the countries in the "Extreme risk" category.
4. Have students color the extreme areas on their map in RED and label the country names as well. Then have students circle the islands of Indonesia on the map.
5. Ask students to turn their world map over for a larger map of Indonesia. Discuss that it is the world's largest archipelago and have students label the islands on the map.
6. On the bottom half of the map page of Indonesia, have students make a "T" chart and write the words "Causes" and "Effects" on the left and right sides.
7. Display the "Indonesia, Climate, and Rain Forests" .pdf on the projector. Read together as a class and point out some of the causes of deforestation and their effects to the country.

Assessment Options:

1. Have some students design an anti-deforestation poster to save the rainforests in Indonesia. Their poster must have designs or pictures showing the cause and effects of what deforestation is doing to Indonesia. By showing these happenings, students are advertising that they want change.
2. Have other students design a poster describing the reasons why deforestation occurs (e.g., agricultural purposes: grazing cattle, planting crops; commercial lumber production for making furniture and other products sold in the United States and elsewhere in the developed world; constructing dams to deal with flooding). By showing these activities, students can show that deforestation is a complex and complicated issue.
3. Have students act as reporters writing an editorial piece. They will cover the story of the causes and effects of deforestation in Indonesia. They are to write a story telling the reasons for deforestation, the problems it causes, and possible solutions and/or compromises.

Extension and Enrichment/Simplification:

Examine the different species that are in extreme danger of extinction due the deforestation of Indonesia.

Connections: History, Science, Mathematics

Resources:

NASA Earth Observatory: "Tropical Deforestation"

http://earthobservatory.nasa.gov/Features/Deforestation/tropical_deforestation_2001.pdf

Business Insider: "Deforestation Index 2012 Map"

<http://www.businessinsider.com/map-of-the-day-deforestation-2011-12>

Rainforest Action Network: "Indonesia, Climate Change, and Rainforests"

http://ran.org/sites/default/files/indonesia_climatechange_rainforests.pdf

Map of the World

http://www.vidiani.com/maps/maps_of_the_world/large_detailed_contour_political_map_of_the_world.jpg

Map of Indonesia

http://www.asianet.fi/asianet/english/databases/material_bank_old/6_pictures/maps/Indonesia_map.jpg

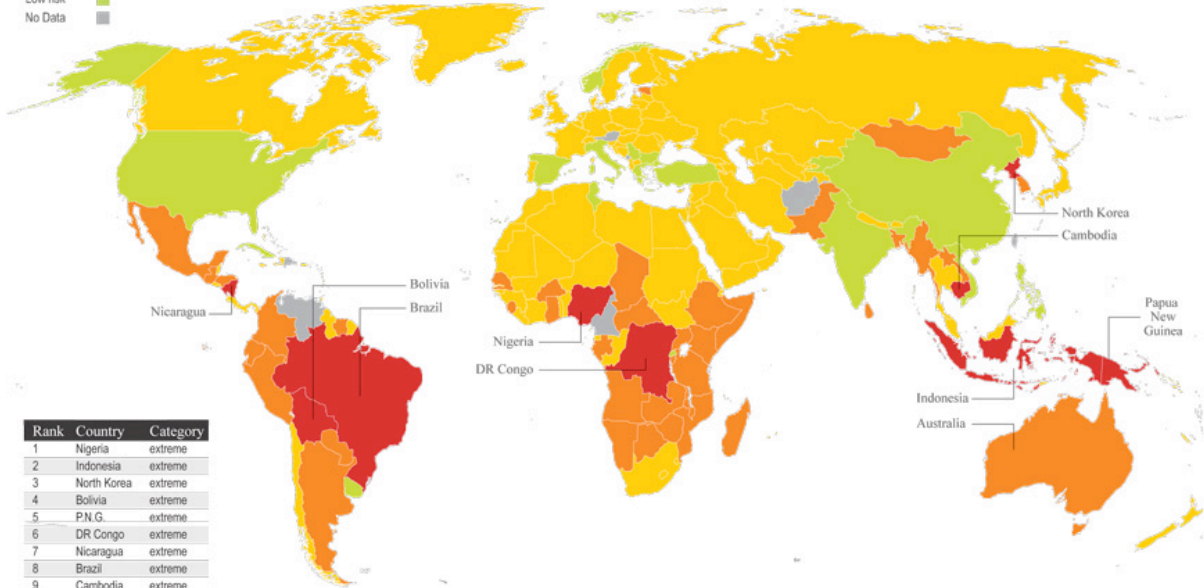
Island map of Indonesia

<https://www.cia.gov/library/publications/the-world-factbook/geos/id.html>

“Tropical Deforestation” Questions

1. What is deforestation?
2. At the current rate of deforestation, how long will we have the world's rainforests?
3. What is "slash and burn" agriculture?
4. What are the two most common reasons that deforestation occurs?
5. What is another reason for deforestation?
6. What do commercial loggers use that is just as damaging to a forest as cutting down trees?
7. Why do peasant farmers usually cut down trees?
8. What is biodiversity and how does deforestation affect it?

- Extreme risk ■
- High risk ■
- Medium risk ■
- Low risk ■
- No Data ■



Rank	Country	Category
1	Nigeria	extreme
2	Indonesia	extreme
3	North Korea	extreme
4	Bolivia	extreme
5	P.N.G.	extreme
6	DR Congo	extreme
7	Nicaragua	extreme
8	Brazil	extreme
9	Cambodia	extreme
10	Australia	high



http://www.vidiani.com/maps/maps_of_the_world/large_detailed_contour_political_map_of_the_world.jpg

INDONESIA



Surface Area: 1 904 569 km²

Population (2000): 212 107 000

GNP per capita (1998): USD 412

http://www.asianet.fi/asianet/english/databases/material_bank_old/6_pictures/maps/Indonesia_map.jpg