



Environmental Geography of SE Asia: Environmental Degradation Documentary

Grade Level: 9-12

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Time Frame: Five 55 minute periods + work outside of class as necessary.

Curriculum Connection: This lesson is intended to be used in a World Regional Geography course in a unit on Southeast Asia. Since this unit tends to fall towards the end of the year, it is assumed that students are already familiar with general concepts of economic activities and their effects on the environment, sustainable development, renewable and non-renewable resources, biodiversity, and the impact of technology on the environment. If students have not been exposed to these concepts prior to this lesson, a brief introduction will be necessary. In addition, prior to beginning this lesson, students should be familiar with economic activities and resources available in Southeast Asia.

Learning Outcomes:

Upon completion of this lesson, students should be able to:

1. Compare ways humans modify the environment in Southeast Asian countries,
2. Evaluate the economic and political relationships which effect renewable and non-renewable resources and their production in Southeast Asia,
3. Examine the economic, environmental, and social impacts of technological innovations in agriculture and natural resources have had in Southeast Asia,
4. Evaluate the significant technological innovations which have impacted the environment of Southeast Asia and how these impacts vary depending upon levels of development, and
5. identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution.

TEKS Strand(s) Objective(s):

(8) **Geography.** The student understands how people, places, and environments are connected and interdependent. The student is expected to:

(A) compare ways that humans depend on, adapt to, and modify the physical environment, including the influences of culture and technology;

(C) evaluate the economic and political relationships between settlements and the environment, including sustainable development and renewable/non-renewable resources.

(19) **Science, technology, and society.** The student understands the impact of technology and human modifications on the physical environment. The student is expected to:

- (A) evaluate the significance of major technological innovations in the areas of transportation and energy that have been used to modify the physical environment;
- (C) examine the environmental, economic, and social impacts of advances in technology on agriculture and natural resources.

(20) **Science, technology, and society.** The student understands how current technology affects human interaction. The student is expected to:

- (B) examine the economic, environmental, and social effects of technology such as medical advancements or changing trade patterns on societies at different levels of development.

(22) **Social studies skills.** The student communicates in written, oral, and visual forms. The student is expected to:

- (B) generate summaries, generalizations, and thesis statements supported by evidence;
- (C) use geographic terminology correctly;
- (D) use standard grammar, spelling, sentence structure, and punctuation; and
- (E) create original work using proper citations and understanding and avoiding plagiarism.

(23) **Social studies skills.** The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:

- (C) use problem-solving and decision-making processes to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution.

Materials :

For Student Use:	
Environmental Degradation Documentary Student Handout	One per student
Computer lab with access to the internet and PhotoStory 3 loaded; make sure the students have access to microphones for recording their dialogue.	PhotoStory 3 is a free software program available online. Make sure it is installed on the computer lab prior to beginning the lesson.
For Teacher Use:	
Land Use/Land Cover Map	Located on the module website
Computer with projection device and access to the internet	

References:

Gersmehl, C. a. (n.d.). *Modes of Spatial Thinking*. New York: NY Center for Geographic Learning.

Strategies: In this lesson, students will complete a map analysis activity based upon the Basic Modes of Spatial Thinking as a warm up. Then, students will use the Geographic Inquiry

method to explore a major environmental issue in Southeast Asia. Finally, students will use a software program entitled Photo Story to create a documentary film about the issue.

Procedures to conduct the lesson:

Starting the Lesson: 5 minutes

Warm Up: Display the map entitled Land Use/Land Cover. Found at:
<http://www.roebuckclasses.com/105/regions/seasiaspac/seasia/seasiaphys/physseasia.htm#Environment>

Have students answer the following questions:

1. Conditions/Site: What major environmental issues are depicted on this map? What type of land cover exists across the majority of the region?
2. Comparison: How are the issues found here similar or different to issues found in other world regions?
3. Aura/Influence: How would the issues depicted on this map affect the surrounding area (the areas adjacent to where each issue is found)?
4. Pattern: Is there a pattern to where these issues are found? If so, explain the pattern?

Asking Geographic Questions: 10-15 minutes

Each pair of students will create their own Geographic Question based upon the topic they chooses to explore. It is suggested that you give students some time to think about their topic before requiring them to submit their question for approval – perhaps 10 to 15 minutes. You may provide a basic question outline, if necessary, for example:

- How can the problem of (insert topic here) be solved in Southeast Asia?
- What are some possible examples of resource use that one would expect based on the type of land cover and how may “resource use” become “resource depletion”?

The Lesson:

Acquiring Geographic Information: Remainder of Day One

Students will use their handouts as guidelines for gathering information regarding their topic. It is recommended that students work in pairs – one skimming information online while the other takes notes.

Organizing Geographic Information: Day Two

Students will use the Storyboard handout to organize their information and write the script for their film. Once their storyboard has been completed, it is recommended that the teacher review the storyboard before the students begin making their film. Once the teacher has approved the storyboard, the students will use Photo Story to create their documentary. An excellent tutorial on how to use PhotoStory can be found at:

<http://www.schooltube.com/video/e63ee182f74e098c72fd/>

NOTE: There are other software programs that students can use to create their film. Microsoft Movie Maker is an example. It is up to teacher discretion as to whether or not students may be allowed to use an alternate program. However, Photo Story is incredibly easy to use – the actual production of the film using this program goes very quickly. Movie Maker and other programs will give students more flexibility over their movie, but students often spend more time playing with the software than they do on the content. In addition, the greater complexity of these other programs makes them more difficult and time consuming than necessary for completion of this activity.

Analyzing Geographic Information: Day Three

Students will conduct their own analysis of the information they have gathered. They will present their analysis in their film.

End the Lesson:

Answering Geographic Questions: Days Four and Five

Students will answer their original question at the end of their film.

Once all of the films are completed, the films will be shown to the class. As a way to keep the students active during the films, have each student complete a brief review of each film – including his/her own. A template is provided below. If possible, the teacher can even create award categories for the students to vote on: Best Overall, Most Informative, Most Entertaining, etc.

NOTE: While showing the films may take up a great deal of class time, this is an important step for a couple of reasons. First, if students know their peers will be assessing their work, they are more likely to put more effort into the final product. Second, students need the opportunity to practice assessing their own and others' work. By judging the quality of the films themselves, they begin to understand how to improve their own work in the future. To protect students and ensure privacy, make sure that student film evaluations do not reveal the name of the student completing the evaluation. If desired, you can assign numbers, or merely leave the reviews anonymous. In addition, only the teacher's assessment will determine the grade for the film. If awards are voted upon, the teacher may exercise the option to award bonus points for films which win awards, but the final grading will be done solely by the teacher.

Questions:

Find and compare solutions other countries have implemented to solve this problem.

- The answers to this will vary depending upon the countries and the topic each group chooses to research.

Explain how the level of development in this country impacts this issue.

- Higher levels of development are the result of stable governments, stable economies, higher levels of education, and sophisticated communication networks, all of which are important when dealing with environmental destruction. Stable governments/economies in countries where basic needs are being met are more able to spend resources on

protecting the environment. In addition, people with higher levels of education are more likely to promote protecting the environment and the communications networks are necessary for people to be able to see and understand the issues.

Explain how advances in technology have impacted this issue.

- Answers will vary depending upon the issue, but in all of the issues – information about the issue and how to resolve it is crucial. Advances in communications technology makes it possible for people to see how areas far away from their location are being affected by their actions. Technology such as the internet allows people to network and learn about issues and their solutions.

Evaluation/Assessment :

Use the following rubric to assess the students’ films. Content grade will be determined by both the completed storyboard AND the dialogue in the film. If desired, bonus points may be added to films which win awards voted upon by the class.

Rubric: Total Points: 5

	Not There Yet	Satisfactory	Clearly Outstanding
Content	<p>1 Point</p> <ul style="list-style-type: none"> ▪ Storyboard is largely missing or incomplete. ▪ Storyboard/film merely describes the topic, with little to no attempt to analyze the problem or provide a solution. ▪ Storyboard and film do not utilize appropriate vocabulary. ▪ Storyboard is difficult to read due to spelling and/or grammar errors. 	<p>2 Points</p> <ul style="list-style-type: none"> ▪ Storyboard is complete and on time. ▪ Storyboard describes the topic and presents possible solutions. An attempt is made to thoroughly analyze the issue. ▪ Storyboard and film correctly utilize appropriate vocabulary. ▪ Storyboard is generally free from spelling or grammar errors. 	<p>3 Points</p> <ul style="list-style-type: none"> ▪ Storyboard is well-written and on time. ▪ Storyboard thoroughly analyzes the issue, compares possible solutions and presents one as the most promising. ▪ Storyboard and film demonstrate mastery of appropriate vocabulary. ▪ Storyboard is largely free from spelling or grammar errors.
Appearance & Sound	<p>0.75 Points</p> <ul style="list-style-type: none"> ▪ No maps are included. ▪ Few pictures are included, and photos are difficult to see. ▪ No music is added in the background or music is too loud and makes the dialogue difficult to hear. ▪ Dialogue is too quiet or difficult to understand. 	<p>1.25 Points</p> <ul style="list-style-type: none"> ▪ At least one map is included. ▪ Photos are numerous and easy to see. ▪ Music is added and does not detract from the dialogue. ▪ Dialogue is clear and easy to hear. 	<p>2 Points</p> <ul style="list-style-type: none"> ▪ Numerous maps are included. ▪ A wide variety of visual images are included. Images enhance the presentation and reflect dialogue. ▪ Music enhances the presentation by reflecting images and dialogue. ▪ Dialogue is clear and easy to hear. Dialogue is well-spoken.

Template for Student Reviews:

Film Title and Production Crew	Rating: see guide	Comments:
	Film content: Graphics: Sound: Total score:	
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Guide for Student Ratings:

Rubric: Total Points: 10

Film Components	Points	Criteria
Content	1 2 3 4 5	<ul style="list-style-type: none"> • the film does not really address the issue • the film tries to address the issue, but it is very confusing and unorganized • the film addresses the issue, but lacks some important information or could be better organized • the film addresses the issue and includes most of the important information; it is well organized and informative • the film clearly addresses the issue in a well-organized manner; it is very informative and entertaining, as well.
Graphics	1 2	<ul style="list-style-type: none"> • not enough visuals, pictures are poor quality or distract from the content • good visuals; pictures clear and easy to see and support the content well
Sound	1 2 3	<ul style="list-style-type: none"> • sound is not audible; speakers cannot be understood; background music is inappropriate or too loud • sound is difficult to hear, but audible; music is not distracting • sound is very easy to hear; speakers are clear and understandable; music enhances the topic – creating emotional drama