

# The Effects of Human Actions on the Environment in the Eastern Hemisphere



Beijing Smog

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Students will be researching human impact on the environment in the Eastern Hemisphere over the last 30 years.

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<b>Overview</b> <a href="#">Back to Navigation Bar</a>	
Objectives	Students will: <ul style="list-style-type: none"> <li>Evaluate images and text of endangered regions in the Eastern Hemisphere. Students will create a digital slideshow persuasive presentation designed to be presented to the UN Environment Programme.</li> </ul>
Recommended time frame	Five Days
Grade level	Middle School
Curriculum fit	World Geography – Eastern Hemisphere
Materials	Internet Access and copies of the student resources to help guide students in their note taking and project design.
<b>Michigan State Learning Standards</b> <a href="#">Back to Navigation Bar</a>	
	World Geography: G5.1 Humans and the Environment Standard 7 – G5.1.1 Describe the environmental effects of human action on the atmosphere (air), biosphere (people, animals, and plants), lithosphere (soil) and hydrosphere (water). Standard 7 – G5.1.2 Describe how variations in technology affect human modifications of the landscape. Standard 7 – G5.1.3 Identify the ways in which human induced changes in the physical environment in one place can cause changes in other places.
<b>Procedures</b> <a href="#">Back to Navigation Bar</a>	

	<p>Day One: Students will be introduced to land regions/areas of the Eastern Hemisphere that have been negatively impacted by human decisions and actions.</p> <p>Day Two and Three: Students will begin doing Internet research on the following topics as well as review images of: The Aral Sea, The Chernobyl Incident, acid rain in Upper Silesia, Poland and air pollution in Beijing.</p> <p>Day Four and Five: Students will cooperatively work together to complete a persuasive digital slideshow.</p> <p>Day Six: Presentations and Persuasive Evaluations</p>
<p><b>Evaluation</b> <a href="#">Back to Navigation Bar</a></p>	
	<p>Students will be evaluated on their cause and effect notes, the image comment sheet, and the presentation/slide show. Rubrics are included for the notes and presentation.</p>
<p><b>Extension</b> <a href="#">Back to Navigation Bar</a></p>	
	<p>Students can continue to track the environmental issues in this region through weekly current events.</p>

# Historical Background

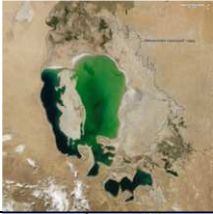



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Since the Industrial Revolution, governments, businesses and individuals have not always taken into consideration the health and well fair of the land as efforts are made to modernize and industrialize a region. In the last 30 years human interactions with environments have created some devastating situations. Communist governments in Eastern Europe and Asia chose machines and big farming over the health of a region and its people.

- **Beijing Air Pollution from Industrialization**
  - [http://www.washingtonpost.com/blogs/capital-weather-gang/post/smog-pollution-chokes-beijing-air/2013/01/29/2d5a2a48-6a3f-11e2-af53-7b2b2a7510a8\\_blog.html](http://www.washingtonpost.com/blogs/capital-weather-gang/post/smog-pollution-chokes-beijing-air/2013/01/29/2d5a2a48-6a3f-11e2-af53-7b2b2a7510a8_blog.html)
  - [http://www.nytimes.com/2013/01/31/world/asia/beijing-takes-emergency-steps-to-fight-smog.html?\\_r=0](http://www.nytimes.com/2013/01/31/world/asia/beijing-takes-emergency-steps-to-fight-smog.html?_r=0)
- **Acid Rain in Upper Silesia, Poland from Industrialization**
  - <http://countrystudies.us/poland/25.htm>
- **The Chernobyl Nuclear Incident**
  - <http://www.world-nuclear.org/info/chernobyl/inf07.html>
- **The Aral Sea and the Implications of Water Diversion Projects**
  - <http://www.columbia.edu/~tmt2120/introduction.htm>

# Primary Resources from the Library of Congress

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<u>Image</u>	<u>Description</u>	<u>Citation</u>	<u>Perm URL</u>
	<p>Aral Sea – Diverting Water Resources for Agricultural and other Industries</p>	<p><i>Shrinking Aral Sea.</i> Map. 25 Aug. 2000. <i>NASA Earth Observatory.</i> NASA. 18 Aug. 2012. NASA. 28 February 2013 &lt;<a href="http://earthobservatory.nasa.gov/Features/WorldOfChange/aral_sea.php">http://earthobservatory.nasa.gov/Features/WorldOfChange/aral_sea.php</a>&gt;.</p>	<p><a href="http://earthobservatory.nasa.gov/Features/WorldOfChange/aral_sea.php">http://earthobservatory.nasa.gov/Features/WorldOfChange/aral_sea.php</a></p>
	<p>Silesia, Poland – Air Pollution Acid Rain</p>	<p>Woodfall, David. <i>Effects Felt Through the Food Chain.</i> Getty Images. National Geographic. 28 February 2013 &lt;<a href="http://environment.nationalgeographic.com/environment/global-warming/acid-rain-overview/">http://environment.nationalgeographic.com/environment/global-warming/acid-rain-overview/</a>&gt;</p>	<p><a href="http://environment.nationalgeographic.com/environment/global-warming/acid-rain-overview/">http://environment.nationalgeographic.com/environment/global-warming/acid-rain-overview/</a></p>
	<p>Chernobyl Nuclear Incident</p>	<p>Block, Herbert. “And now some more official information on the accident at Chernobyl.” Cartoon. <i>The Washington Post</i> 6 May 1986. <i>Prints and Photographs Online Catalog.</i> 2006. <i>Enduring Outrage.</i> Lib. of Congress. 28 February 2013 &lt;<a href="http://www.loc.gov/pictures/item/2006682392/">http://www.loc.gov/pictures/item/2006682392/</a>&gt;</p>	<p><a href="http://www.loc.gov/pictures/item/2006682392/">http://www.loc.gov/pictures/item/2006682392/</a></p>
	<p>Bikers in Beijing with masks on due to the pollution in the air.</p>	<p>Danzinger, Jeff. “Air Pollution in China Worsens.” Ink Drawing. Miscellaneous Items in High Demand. 2006. <i>Prints and Photographs Online Catalog.</i> Lib. Of Congress. 16 Jan. 2013 &lt;<a href="http://www.loc.gov/pictures/item/2011648286/">http://www.loc.gov/pictures/item/2011648286/</a>&gt;</p>	<p><a href="http://www.loc.gov/pictures/item/2011648286/">http://www.loc.gov/pictures/item/2011648286/</a></p>

# Rubric

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## Part 1 Rubric – Cause and Effect Note Sheet

	Research
3	Students completely researched the environmental events and factually summarized how they impacted daily life and the environment.
2	Students partially researched three environmental events and briefly summarized how they impacted daily life and the environment.
1	Students did not complete researching three environmental events and inaccurately summarized how they impacted daily life and the environment.

# Rubric

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## Part 2 - Rubric for Slide Show Content and Presentation

	EDLI	Slide Show	Presentation
4	Students included detailed information outlining four objectives that would increase the quality of life in the areas included in this activity.	Slide show includes detailed textual information on the history of each area and graphics to support the issue or situation.	Students created a slide show that engaged the audience and created a change in attitude regarding environmental issues that could be assessed (80% or higher) in a post presentation attitudinal questionnaire.
3	Students included clear information that outlined four objectives that would increase the quality of life in the areas included in this activity.	Slide show includes clear textual information on the history of each area and graphics to support the issue or situation.	Students created a slide show that engaged the audience and created a change in attitude regarding environmental issues that could be assessed (70% or higher) in a post presentation attitudinal questionnaire.
2	Students briefly inform information outlining less than four objectives that would increase the quality of life in the areas included in this activity.	Slide show uses brief textual information on the history of each area and graphics to support the issue or situation.	Students created a slide show that engaged the audience and created a change in attitude regarding environmental issues that could be assessed (60% or higher) in a post presentation attitudinal questionnaire.
1	Students did not outline information on four objectives that would increase the quality of life in the areas included in this activity.	Slide show is missing textual information on the history of each area and/or graphics to support the issue or situation.	Students created a slide show that partially engaged the audience and slightly created a change in attitude regarding environmental issues that could be assessed (50% or higher) in a post presentation attitudinal questionnaire.

# Handouts

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## Student Handouts

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### Part 1 – Sheets for Notes and Analyzing Images

Students will view /read primary source documents regarding the environment of the Eastern Hemisphere. Students will describe the causes and effects of acid rain, water diversion projects and nuclear accident in specific regions in Asia and Africa.

#### Notes – Causes and Effects

Places	Causes	Effects
Aral Sea		
Poland and Acid Rain		
Chernobyl Incident		
Beijing Air Pollution		

#### Analyzing Photographs and Images

Observe	Reflect	Question
<b>Describe</b> what you see?  <b>What</b> is the setting?  <b>What</b> details grab your attention? Why?	<b>Why</b> do you think this image was made?  <b>Who</b> do you think was the audience for this image?  <b>What</b> can you learn from this image?	<b>What</b> do you wonder about...  <b>How</b> did this happen?  <b>Why</b> did this happen?  <b>Is</b> the environmental situation in the picture reversible?  <b>Who</b> is responsible for the situation or who should be held accountable? World organizations, governments, individuals?

## Part 2 – Directions for Slide Show Presentations (partner option)

Directions:

Using factual information regarding the environmental changes to daily life and the environment, students will create an economic and daily life improvement program (EDLI) based on the cause and effect research. The program to be presented to the UN Environment Programme will need four objectives that will increase the quality of life in each of the negatively impacted areas and four objectives that could improve the overall health of the region/local environment.

## Part 2 - Post-Presentation Attitudinal Survey

Directions: For each presentation complete the form below.

Position 1: **Yes**, as a member of the UN Environment Programme I will support financial assistance to the four regions/areas that have suffered or are suffering negatively from the human induced changes to the environment.

Position 2: **No**, as a member of the UN Environment Programme I will not support financial assistance to the four regions/areas that have suffered or are suffering negatively from the human induced changes to the environment.

Presentation	Position 1 or 2 and Comment if desired
#1	
#2	
#3	
#4	
#5	
#6	