**Environmental Management Case studies Assignment**This assignment is to help you prepare for the Cambridge papers on June 3 and 5. Remember that your papers are all essay and will each contain two short response structured questions and one extended response essay. Though you will have a choice of three potential topics for your extended response, having ready case studies to discuss will help you score well on these essays, which each account for 20% of your total Cambridge assessment. Cambridge papers will cover the following topics:

**Paper 1:** The Lithosphere and Atmosphere

**Paper 2:** The Hydrosphere and Biosphere

**Requirements:**Each case study must contain:

* A description of exactly what happened, the events leading up to the case study, the environment that was impacted
* A discussion of how sustainable environmental management or human monitoring could have mitigated or prevented any negative impacts of the case study
* If asked for, a complete comparison and contrast between MEDC and LEDC strategies for that given case study (i.e., how might this case study have been handled differently in a LEDC—if MEDC—or MEDC—if LEDC—country?)

Because of the varied nature of these case studies, each case study will be different and contain different information. Answers may be presented as bulleted lists, charts, essays, paragraphs, or slide presentations. Complete sentences and paragraph form are not necessary, but information must be complete. Some case studies will be longer than others. If you are concerned about not answering any given case study completely, please *ask.*

**Submission and Grading**

This assignment will be due to turnitin.com no later than 11:59pm, May 29, 2015. A hard copy is not necessary. If you choose to present your information as slides, turn your assignment in as an outline on turnitin.com and email me your completed slideshow.

Each case study is worth 10 points each, making this assignment worth 200 points total. Case studies will be graded for completeness in examining each issue and for addressing all parts of each study.

**Lithosphere Case Studies:**

1. Major volcanic eruption: Select either a MEDC or LEDC example. Be sure to explain how monitoring could have affected the impact of the eruption.   
 Possible examples include but are not limited to: Ruapehu (1965, 1975, 1995), Mt. Unzun   
 (1991), Pinatubo (1999), Monserrat (1995), Etna (2001), Grimsvotu Jokulhaup (Glacial   
 burst) 1996.

2. Major earthquake: Select either a MEDC or LEDC example. Be sure to explain how monitoring could have affected the impact of the eruption.  
 Possible examples include but are not limited to: MEDC and LEDC (Mexico City (1985),   
 Armenia (1988), Loma Prieta (1989), Mt. St Helens (1989), Kobe (1995), Colombia (1999),   
 Aceh (2007), Sumatra (2009).)

3. Mass movement of soils on slopes: Describe the area destabilized and discuss how human impacts contributed to mass movements. Choose a LEDC or MEDC example but discuss how different economic status would have changed management and impact.  
 Possible examples include but are not limited to: Hong Kong, Rio de Janeiro, Sarno in   
 Southern Italy, Himalayan Foothills, Sumatra (2009)

4. Soil degradation: Discuss an example of soil degradation that led to either serious erosion or agriculture non-productivity.   
 Possible examples include but are not limited to: Southern England, Himalayan foothills,   
 USA Dustbowl

5. Renewable vs. Nonrenewable resource management: Compare and contrast policies and impacts of resource management in LEDC vs MEDC countries. This case study should examine how two specific nations of differing economic status manage their country’s respective resources (for example, nuclear power in France as compared to coal burning electric plants in China or biomass stores in a LEDC country)

6. Pressures of an urban area on natural resources: Discuss how a large population center specifically impacts resource use and needs  
 Possible examples include but are not limited to: Sao Paulo, Mumbai, London, Tokyo,   
 Paris, Buenos Aires and Lagos

**Atmosphere Case Studies:**

7. Drought case study: discuss an area of the world severely impacted by drought. Why is this area so affected? What could be done to mitigate loss of life from drought?

8. Hurricane/serious storm case study: discuss a serious hurricane or tropical storm. Where did it hit and what impact did it have? How did/could weather monitoring mitigate loss?

9. Compare and contrast LEDC vs MEDC methods of dealing with air pollution, selecting one example nation of each category and discussing its policies.

10. International agreement to control air pollution case study: select one international agreement or summit and discuss its impact on international monitoring (Possible Examples: Kyoto protocol, Buenos Aires summit, Montreal protocol, etc.)

**Hydrosphere:**

11. Aquifer basin case study: select one global water store and describe how human use has impacted its water availability. How is the water used and who does it supply?

12. Diminishing water supplies: select one water supply that has been severely depleted by human use. How did this happen? What have been the impacts on both humans and surrounding ecosystems?  
 Possible examples include but are not limited to: Aral Sea, Prairies, Australian Artesian   
 Basin

13. Water shortages due to urban and industrial demand: Select one urban or industrial example of water depletion and describe how the area is managing water shortages. Compare and contrast how a MEDC and LEDC might deal with these issues (desalination? Piping? Etc.?)  
 Possible examples include but are not limited to: Mexico City, Middle East, London Basin,   
 or local examples

14. Compare and contrast water sustainability practices in named MEDC vs LEDC examples.

15. Compare and contrast water sustainability practices in named drought area vs water rich examples.

16. Water pollution catastrophe case study: select an example of extreme water pollution either over long periods of time or a single catastrophic event. What happened, why did it happen, and what were the impacts (continuing impacts?) of the event?  
 Possible examples include but are not limited to: Rhine, Ganges, the Mediterranean Sea   
 and named oil tanker spillage

**Biosphere:**

17. Complete a detailed compare and contrast chart for two of the following: tropical rain forest, monsoon rain forest, tropical savannah, desert, temperate deciduous and high latitude tundra. Include climate, soils, biodiversity, resources, and conservation concerns.

18. Conservation case study: examine an area that has been seriously damaged, and discuss how it could be protected   
 Possible examples include but are not limited to: Amazonia, the Great Barrier Reef, the   
 Galapagos Islands and areas that are local to the Centre (Everglades?)

19. Endangered animal case study: discuss one engangered species, why it is endangered, and what could be done to protect its numbers in both captivity and the wild.

20. Population growth impacts on resources case study: select two contrasting nations, one experiencing rapid population growth and one experiencing steady growth. How do each of these growth patterns impact resource use and allocation? How do LEDC vs. MEDC countries deal with resource shortages differently?