



DEPARTMENT OF THE ARMY  
**UNITED STATES MILITARY ACADEMY**  
West Point, New York 10996

REPLY TO  
ATTENTION OF

MADN-GENE (351)

24 March 2009

MEMORANDUM FOR CADETS, EV487 ENVIRONMENTAL SECURITY, TERM 092

SUBJECT: Term Paper Instructions, Environmental Security

1. This document constitutes your specific instructions for researching and writing your Environmental Security term paper. This project will be a combination of group and individual work. You will work in groups of three to conduct background research. The final project write-up will be completed individually. You may choose your own project partners.
2. You are to assume the role of senior energy advisor to the United States Ambassador for a specific country. The Ambassador's job is to protect U.S. security interests by promoting peace and stability in the country for which he/she is responsible. A restless, unstable country may deteriorate into a disrupted state, one that may threaten U.S. national interests and ultimately require U.S. military intervention. A key to increasing a country's stability is for that country to develop a sustainable energy strategy that will promote its national energy security into the future. Thus, your mission is to devise this energy strategy for a particular country and to write a report summarizing your position for the Ambassador. Your planning horizon is the next 30 years.
3. In researching and developing your project, you will proceed through the following stages:
  - a. *Choose teams and countries (LS 25).* You may choose your own project partners. Once you have chosen your team, choose one of the following six countries to study: Nigeria, Angola, Indonesia, Gabon, South Africa or Brunei (first come, first served).

country	location	income level	fossil fuel resources
<b>Nigeria</b>	Africa	low	largest oil producer in Africa
<b>Angola</b>	Africa	lower middle	member of OPEC
<b>Indonesia</b>	Oceania	lower middle	member of OPEC
<b>Gabon</b>	Africa	upper middle	oil reserves
<b>South Africa</b>	Africa	upper middle	large coal reserves
<b>Brunei</b>	Oceania	high	oil and natural gas

- b. *Drivers (Milestone 1, 100 points, due LS 27, complete as a group).* Brainstorm the drivers that will affect your country's energy future. Research each driver you have identified. **Develop a table** with columns for driver, description (either its numerical value if quantifiable or a short description if non-numerical), source (numbered with references given at end of table), importance and uncertainty (use a scale of 1-10). Include a title highlighting

which country is described. Your table should be broken into environmental, technological, economic and socio-political subcategories, with drivers within each subcategory listed by importance. **Prepare an uncertainty-importance diagram** of these drivers. **Provide a short written summary** of your research and the significance of your findings. Brainstorm and be creative. You don't have to have all the answers, but you must identify all the drivers.

c. *Alternative scenarios (Milestone 2, 100 points, due LS 32, complete as a group).* Develop three alternative scenarios describing what your country will look like in 30 years. To develop these scenarios, you will need to assume values for the drivers identified in Milestone 1 as highly important but poorly known. Describe specifically three alternative futures that will result from different combinations of reasonable assumptions. Include a table based on the example shown below.

driver	scenario 1	scenario 2	scenario 3
population	2% growth rate to 1 million	3% growth rate to 1.5 million	4% growth rate to 2 million
GDP			
etc			

4. *Proposed plan (Final submission, 400 points, due LS 40, complete individually).* Each member of your team will choose one of the three scenarios developed for Milestone 2. Given your chosen scenario, identify and defend the best energy mix to ensure your country's energy security for the future. Include a realistic time table for achieving this end state. Your final submission will be completed individually. Include revised Milestones 1 and 2 as appendices, a cover sheet and references but please no brown bomber!
5. The World Bank ([geo.worldbank.org](http://geo.worldbank.org)), the United States Department of Energy ([www.eia.doe.gov](http://www.eia.doe.gov)) and the CIA World Factbook ([www.cia.gov/library/publications/the-world-factbook/](http://www.cia.gov/library/publications/the-world-factbook/)) provide excellent datasets to get you started on your research.

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