

## Term Paper Assignment

*Overview:* ESYS 10 requires a brief (5-7 page) term paper and an oral presentation on your findings. Papers should be typed and doubled-spaced.

*Schedule:*

Tuesday, February 25. One paragraph summary due describing term paper topic.

Tuesday, March 4. Term papers due. 5 minute oral presentations.

*Topic selection:* You may choose from 4 general interest areas:

- *El Niño and climate:* We're currently in the midst of an El Niño event. What does that mean?
- *The Amazon Rainforest:* What are the problems with managing the rainforest? What solutions are available?
- *Water quality on Southern California beaches:* What leads to beach closures in Southern California? What are the ecological impacts?
- *Sea level rise:* How much could global sea level rise and why?

You will divide into groups by interest area. Within your groups, decide what science and policy issues are relevant. Each of you should choose specific topics on the basis of your own interests. Topics may focus on policy, science, or a combination of the two. Because your papers should be short, you should select a very narrow topic that you can research carefully.

*Acceptable research sources:* Because our understanding of environmental systems is changing rapidly, the Internet is an acceptable research tool, as are conventional printed material in the library (newspapers, magazines articles, books). If you work from the Internet, be sure to cite your sources carefully, and do not succumb to the temptation to "borrow" text from other sources. Also please recognize that Internet web sites have differing levels of credibility. Be sure to use multiple sources, and seek out material prepared by professionals working in the field. Some web links are included on the course web site. I'm happy to talk to any of you to help you get started on your topics.

### Topics to Consider

*El Niño and Climate:*

- What is El Niño? What happens during an El Niño event?
- What is the impact of El Niño on Southern California weather?
- How does an El Niño event influence fisheries?
- Why do big corporations want to predict El Niño events?
- How is El Niño monitored today?
- How might El Niño be changing?

*The Amazon rainforest:*

- What is the impact of cutting rainforest trees on ecosystems?

- What is the impact of cutting trees on carbon dioxide levels in the atmosphere?
- What are rainforest friendly agricultural methods for growing timber? coffee? nuts?
- How has the International Monetary Fund steered rainforest management policies?
- What is the impact of slash and burn agriculture on soil quality or air quality?
- How does the pharmaceutical industry benefit from the rainforest?

*Water quality on Southern California beaches:*

- How is San Diego sewage managed? How polluted is the sewage that enters the ocean
- How is Tijuana sewage managed? What international policies have been implemented?
- What are the major sources of pollutants that we dump into the ocean? How could they be mitigated?
- Why do beaches close sometimes?
- What are the health hazards associated with ocean pollutants?
- How do local ecosystems respond to human activities? How is the San Diego kelp forest doing?

*Sea level rise:*

- How much could global sea level rise and why?
- Why are island nations worried about sea level rise?
- How could sea level rise influence coastal regions of the U.S.?
- Why does the insurance industry worry about sea level rise?
- What impact could sea level rise have on human health?