Course Project: Part 2
Due: May 11, 2009
50% of project grade

For this part of the project, a similar grading scheme will be used with the same grading rubric.

a) Requirements (40%) Did you answer all the questions required?
b) Accuracy (40%): Was your analysis accurate and complete?
c) Level of presentation (neat, organized and appropriate grammar/spelling) (20%)
The same grading rubric as previously posted will apply.

Submittal:

Part 2 of the course project will be submitted in two parts, electronically and a hard copy. As before, you will be required to submit a hardcopy of the report in class on the assigned date. In addition, you will also be required to submit the text portion of your report electronically using the website www.turnitin.com . Your report will only be accepted when both components are completed. To submit your work, log onto the website and enter the appropriate class ID and password. You will have to register for an account for first time users.

Class ID: 2650243
Password: climate

Late assignments will not be accepted.

Important: Answers to all questions must be in your own words. If you decide to use the words of others, then you must properly cite the reference. Students who plagiarize will incur a lowering of their course grade and a referral to the University Judicial Board.

Project Description:
We have become familiar with the concept of a CO_2 inventory and understand the relationship with energy use. However, there is a broader issue of sustainability that is also related to energy use and greenhouse gas emissions. The concept is quite simple. We live on a planet with ample resources to provide food, water and shelter for its inhabitants. A few hundred years ago, when the global population was well under 1 billion, there were enough of these resources for everybody to have their share. Today the story is changing. With the current population at 6 billion and rising, the amount of resources per person is shrinking. In fact, some estimates suggest that we have already exceeded the Earth's capacity to provide resources for it's all its inhabitants in a sustainable manner.

The definition of sustainable: "1. Of, relating to, or being a method of harvesting or using a resource so that the resource is not depleted or permanently damaged. 2. Relating to a human activity that can be sustained over the long term, without adversely affecting the environmental conditions (soil conditions, water quality, climate) necessary to support those same activities in the future." Thus, the issue of sustainability is central to understanding how we are going to live our lives on this planet together.

A useful diagnostic for evaluating the impact of a person or group of people (i.e. community or country) on the planet is the ecological footprint. Although energy use is the central issue in developing a CO_2 inventory or carbon footprint, we can broaden that concept to include ecological resources necessary to sustain the planet. In this part of the project, you are to calculate your personal ecological footprint and conduct an analysis to determine how different actions affect your personal footprint using the following website: http://www.footprintnetwork.org/en/index.php/GFN/page/personal_footprint/   In this work, you will see some similarities with your CO_2 inventory, but overall this analysis is much broader and covers may of the components that were missing from the calculator we used in Project Part 1. Note that information about the footprint analysis is given on the same web page and you should read though those sections prior to answering the below questions.

For each question, write a paragraph using the provided word count.

1. Compute your ecological footprint using the above website and show your results being sure to include the components to your total footprint (i.e. food, transportation etc.). Explain what the ecological footprint represents, and discuss why the various questions are asked and how they influence your footprint. Look at the different section and determine which of these is most important to your footprint. (200 words: 15 points)

2. Based on your footprint analysis and your understanding of the different components to your footprint, use the 'edit your footprint' link to determine what actions would be needed to reduce your footprint by at least 20%. As you play around with this part of the website, you'll get a feeling for what type of actions give the largest contribution if you watch how the total acres of land you requires changes. Try to be realistic. Then include a print out of your initial footprint and of the new footprint. For this question, you should describe why those changes reduced your footprint. (200 words: 15 points)

3. *Social Change - a change in the behaviour of people or attitudes to other people.* I want us to experience social change at the personal level for a short period of time. Based on the results of our above ecological footprint, it seems likely that living more sustainable will require some level of social change. I want you to try to reduce your ecological footprint for one week by 20% (or more) in a way this is consistent with your question 2 response. In the writeup, you will describe how you actually did this, provide some form of evidence, and then reflect on the experience. Was it difficult, was it easy? (300 words, 20 points)

Extra Credit: (up to 10 additional points on this part of the project)

We all have seen activists campaigning about particular issues, handing out flyers, scaling bridges to hang banners or just talking to individuals. These people are all interested in promoting social change through their actions and campaigns. I would like you to play the role of 'global warming activist' for a day, and experience what it is like to promote social change. I'm not asking you to hang a big sign on Tower Hall saying 'SJSU – Reduce your Carbon Footprint', although that would count. I'm asking you to think of something (could be quite small) to do that would ultimately (if it worked) reduce greenhouse gas levels. I'm encouraging you to be creative and want you to consider the following guide:

a) Identify an opportunity for change
b) Develop a plan
c) Communicate that plan to someone
d) Evaluate the potential for success

You can reach out to anyone including, friends, colleagues, any type of business, our university, our city or our state. The key component is that you need to interact with someone.

Requirements: You will share with the class in 2-5 minutes your plan, what you did, and then how you felt about the experience. There will be signup sheets in class (starting April 27th) that will be offered on a first come first served basis, with a limited number of openings each week. Also, people going early will be graded easier as we will all learn from their experience. For the write up, you will need to write a paragraph describing your experience being a global warming activist.