

## Climate Change: 9/9, Mark Cane

- Climate changes occur with rapid, unexpected transitions and they will affect the way humans live and die.
- Temp increase correlates with a rise in the CO<sub>2</sub> in the atmosphere
- Using data on current and historical atmospheric CO<sub>2</sub> levels, scientists try to establish models of what the future of climate change will be and the possibility of different ecological happenings.
- These models aren't as accurate as we would hope because of their lack of sensitivity, and the many different factors that can't be accounted for.
- Current levels of Greenhouse Gases through pollution are increasing the rapidity and uncertainty of climate change.
- Other points made: El Nino, connection between climate and health (heat related deaths)

## Energy Utilization: 9/9, Klaus Lackner

- Energy is a problem, but also a necessity that leads to pollution, namely CO<sub>2</sub> emissions. We cannot stop using fossil fuel due to economic reasons, so we must contain and dispose of the CO<sub>2</sub> to achieve a zero emission state.
- Only 14% of energy used is from renewable sources.
- Use of fossil fuels releases 6.5 billion tons of CO<sub>2</sub> per year that cannot all be absorbed into carbon sinks.
- We must
  - achieve zero CO<sub>2</sub> emission energy production
  - pull current high levels of CO<sub>2</sub> out of the atmosphere