

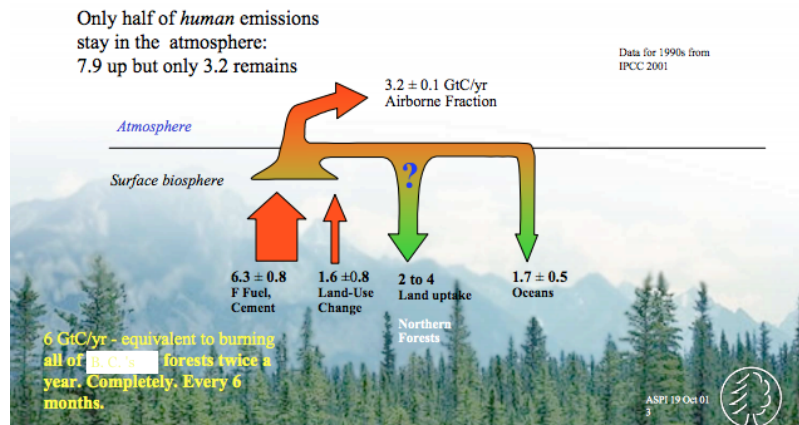


Clip Activity: Considering Carbon

Can planting trees counter our CO₂ Output?

1. This presentation took place in 2001. Atmospheric carbon from fossil fuel emissions was around 6.3 gigatons per year. Dr. Apps states that this is equivalent to burning all the forests in Canada once a year, or all the forests in British Columbia twice a year. As of 2012, fossil fuel carbon emissions (from CO₂) have risen to around 8.6 gigatons per year. Estimate how many Canada forests would need to be planted to balance a year's worth of carbon from current fossil fuel emissions in 2012.
2. Investigate three ways of either decreasing carbon emissions or increasing carbon uptake. Discuss with a friend or colleague (or record in your science journal) which solutions seem practical to you and which you think are unrealistic.

● Human Perturbations to the Global Carbon Cycle



Hint: What percent of CO₂ is carbon?

If you add up the atomic weight of carbon (12) and the atomic weight of oxygen (16 X 2), you get 44, so the ratio of CO₂ to C is 44/12 or 3.67. In other words, 10 gigatons of C = 36.7 gigatons CO₂. In general scientists refer to gigatons of carbon, while the media tends to refer to gigatons of CO₂—a much larger number.