# SUCCEED teacher workshop 2013

# Bathtub Analogy – Discussion

# In the bathtub analogy, explain what is represented by each of the following:

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| **Greenhouse Gas Analogy** | **Energy Analogy** |
| 1. **The bathtub**
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| 1. **The water**
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| 1. **The flow rate of water entering the bathtub (faucet)**
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|  |  |
| 1. **The flow rate of water leaving the bathtub (drain)**
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| 1. **Clogging of bathtub drain**
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| 1. **The level of water in the bathtub**
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| 1. **The change in the flow rate of water leaving the bathtub**
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| 1. **The underlying cause of the change in the flow rate of water leaving the bathtub**
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| 1. **Water spilling over the side of the bathtub**
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# Exercises Greenhouse Gas Analogy

1. Assume that the mass of carbon dioxide equivalent (CO2e) entering the atmosphere continues indefinitely at the current levels of 7 GT of CO2e/year. Show this flat rate on the graph below. Now draw another flow rate curve for CO2e leaving the atmosphere versus time. Show how it will reach a dynamic equilibrium. Indicate on the time-axis the amount of years that will take (100, 1,000, 10,000, even more?)

 

1. Consider the total mass of CO2e in the atmosphere at any given time. Draw a curve showing this total mass versus time based on the curves you drew in the previous exercise.

 