

Recap from the Matter Cycles

- 3 most important nutrient for the ecosystem: Carbon, Nitrogen, Phosphorus
- Human activities change the balance of these nutrients
- $\text{CO}_2 \rightarrow$
- $\text{N}_2 \rightarrow$
- $\text{PO}_4^{3-} \rightarrow$

Fixing our Ecosystem

- The big question:

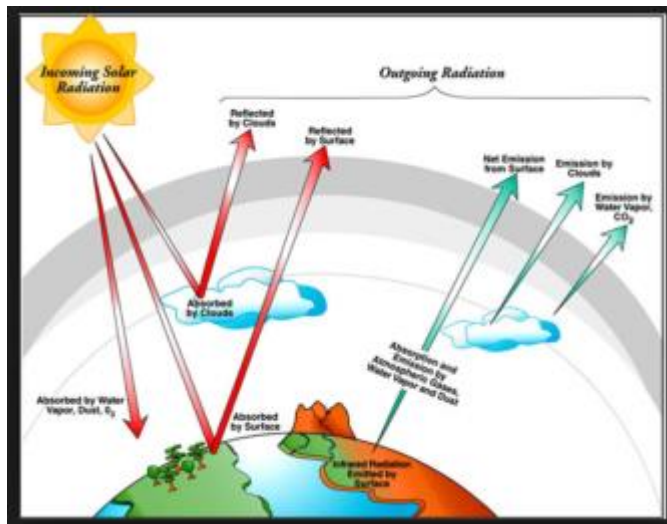


- There are two school of thoughts as to how we can fix the ecosystem and fix the negative impact human activities have on the matter cycles:
 - 1)
 - 2)

1. To Improve what we already have:

- <https://www.youtube.com/watch?v=m-FM845gial> (Leonardo DiCaprio)
- <https://www.youtube.com/watch?v=afH6v067u08> (Mike Pence on Climate Change)
- <https://www.youtube.com/watch?v=xKCuDxpccYM> (Elon Musk – Tesla CEO)

2. Find Alternative Energy that is Efficient



Elon Musk's grand plan:

- Solar panels charge your walls and charge the Powerwall
 - Powerwall will supply energy to the house at night and also charge your car
 - Elon Musk has created solar panel roof tiles (Solarcity)
 - Elon Musk has created the powercell (Tesla)
 - Elon Musk is looking to improve the efficiency of batteries (Gigafactory)
 - Elon Musk is developing efficient electric cars (Tesla)
 - Elon Musk is trying to develop a high speed freight and passenger transport that is run on electricity (Hyperloop)
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- <https://www.youtube.com/watch?v=OARwwN7PoA4> (Powerwall)
 - <https://www.youtube.com/watch?v=hMrantzEYC8> (Solarcity)
 - https://www.youtube.com/watch?v=iZm_NohNm6I (Gigafactory)
 - <https://www.youtube.com/watch?v=lgKWPdJWuBQ> (Elon Musk TED)