# HUMAN IMPACTS by the numbers

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UNITS

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human population =		$\approx 7 \times 10^9$
Niagara Falls drainage rate =		$\approx 10^9 \, m^3/day$
volume of Grand Canyon =		$\approx 10^{12} \, m^3$
terrestrial area of Earth =		$\approx 15 \times 10^{13} \, m^2$

THE ANTHROPOSPHERE BY THE NUMBERS
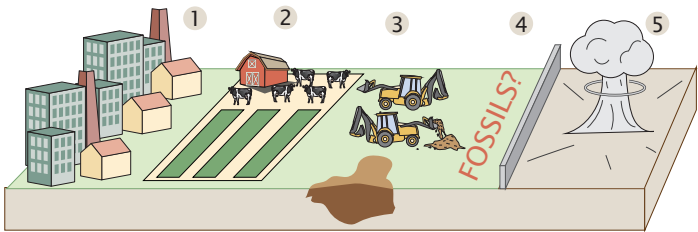
1 ANTHROPOMASS NUMBER
total mass of human-generated material $\approx$ XX Gt C $\approx$ all biomass

2 TERRA NUMBER
area used by humans $\approx 5 \times 10^{13} \, m^2 \approx 0.3 \times$

3 EROSION NUMBER
soil moved by humans $\approx$ 40 Gt C $\approx$ 8×river

4 EXTINCTION NUMBER
species to go extinct from human action $\approx$

5 OPPENHEIMER NUMBER
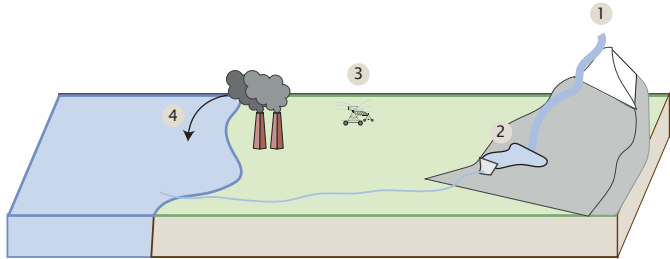background radiation from nuclear fallout $\approx$

THE BIOSPHERE BY THE NUMBERS
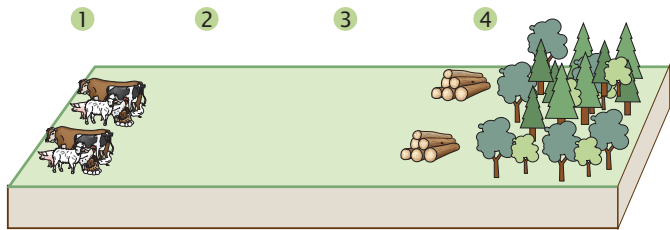
1 BARNYARD NUMBER
global population of livestock $\approx 3 \times 10^{10} \approx 4 \times$

2 ???

1 ???

4 DEFORESTATION NUMBER
area of forest loss due to human action $\approx 10^{11} \, m^2/yr \approx$

WATER BY THE NUMBERS

1 ICE-MELT NUMBER
annual melt volume from glaciers and ice-caps $\approx 10^{12} \, m^3 \approx$ 1 grand canyon

NIAGARA NUMBER
daily volume of water used by humans $\approx 10^{10} \, m^3/day \approx 1\times$

HOOVER NUMBER
water volume controlled by dams $\approx 10^{12} \, m^3 \approx 4 \times$ amazon

ACIDIC OCEAN NUMBER
somehow diagram?