

Droughts

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Introduction

- ▶ Drought is a natural climatic phenomenon characterized by prolonged periods of low precipitation, often combined with higher temperatures that increase evaporation and reduce soil moisture.



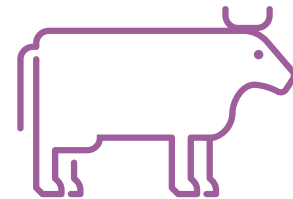
CLD Assumptions



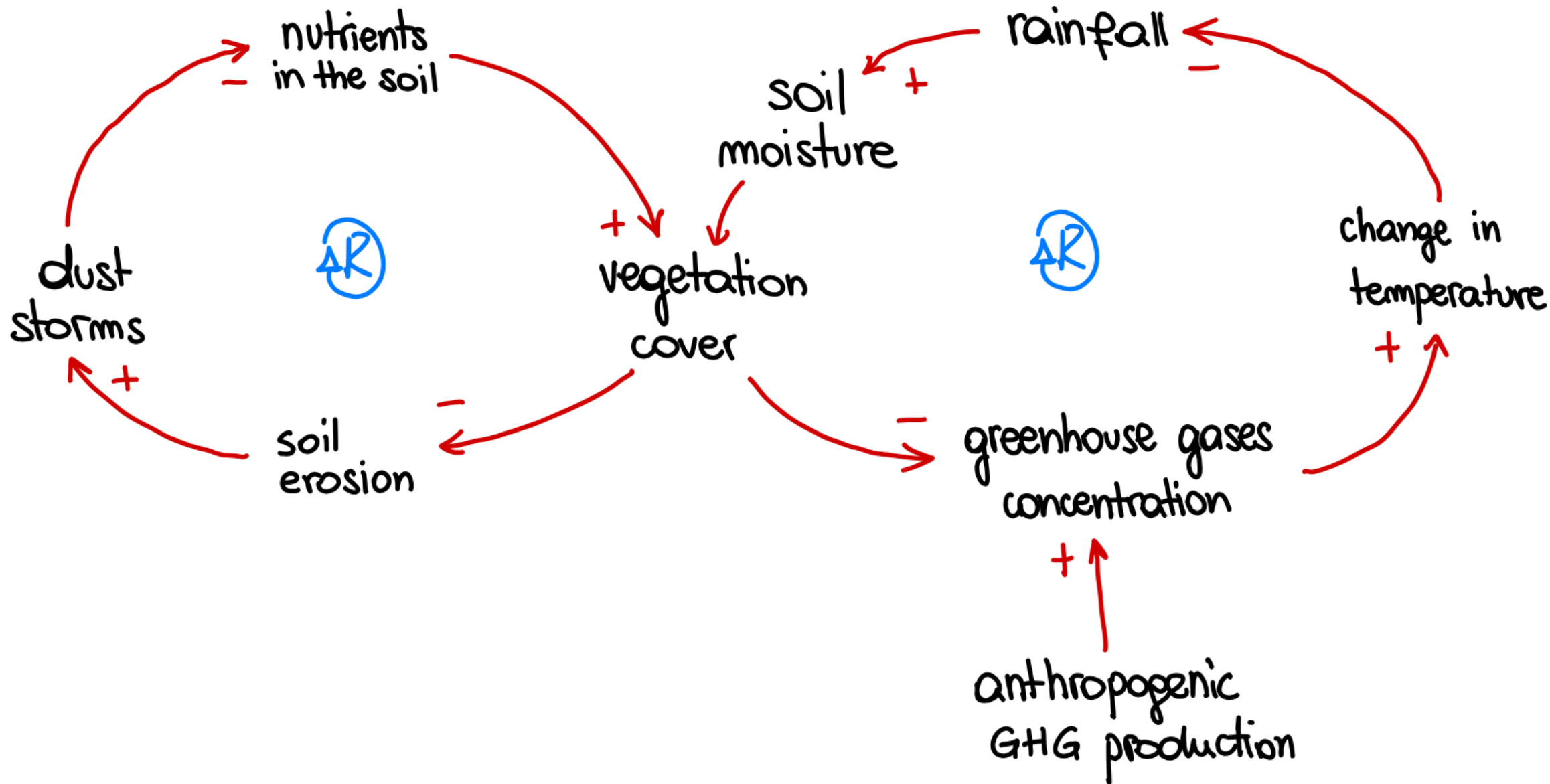
The drought CLD is modeled on prairie-like environments



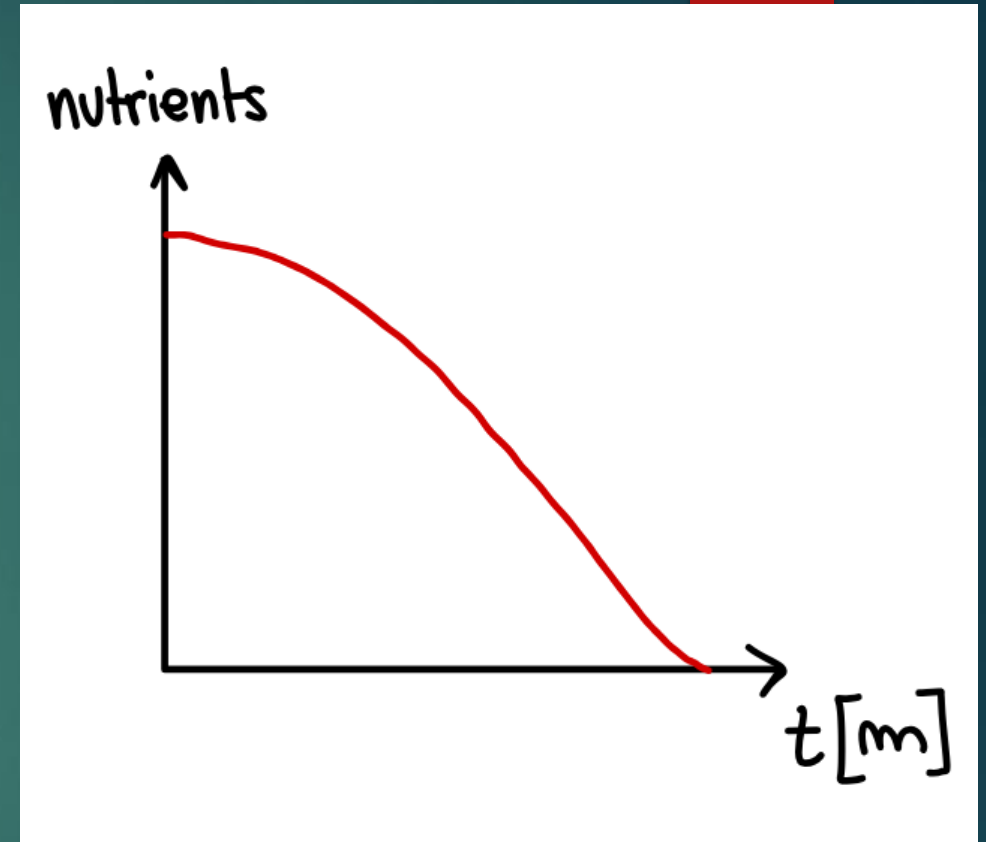
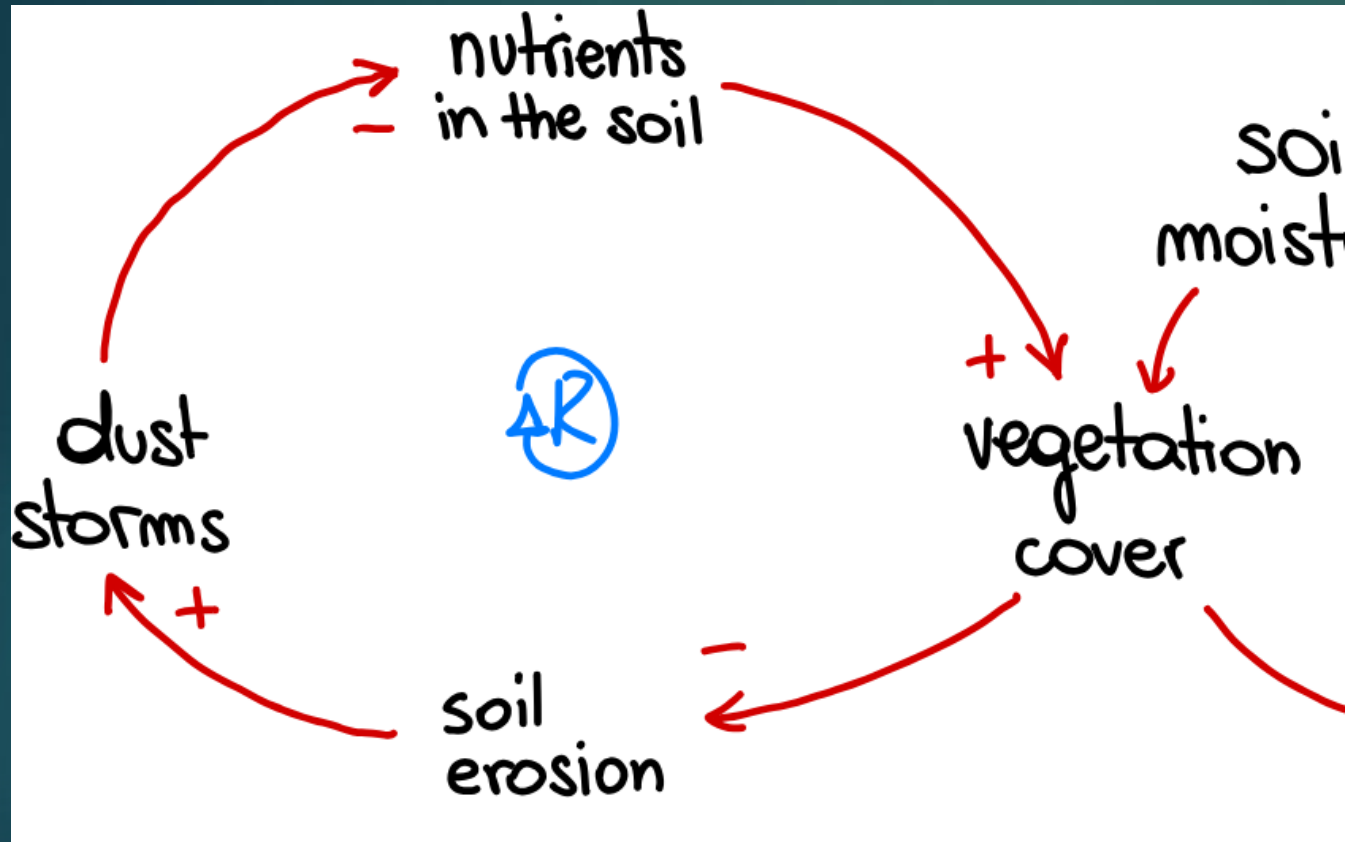
The CLD is inspired by the Dust Bowl event



The fauna is not taken into account

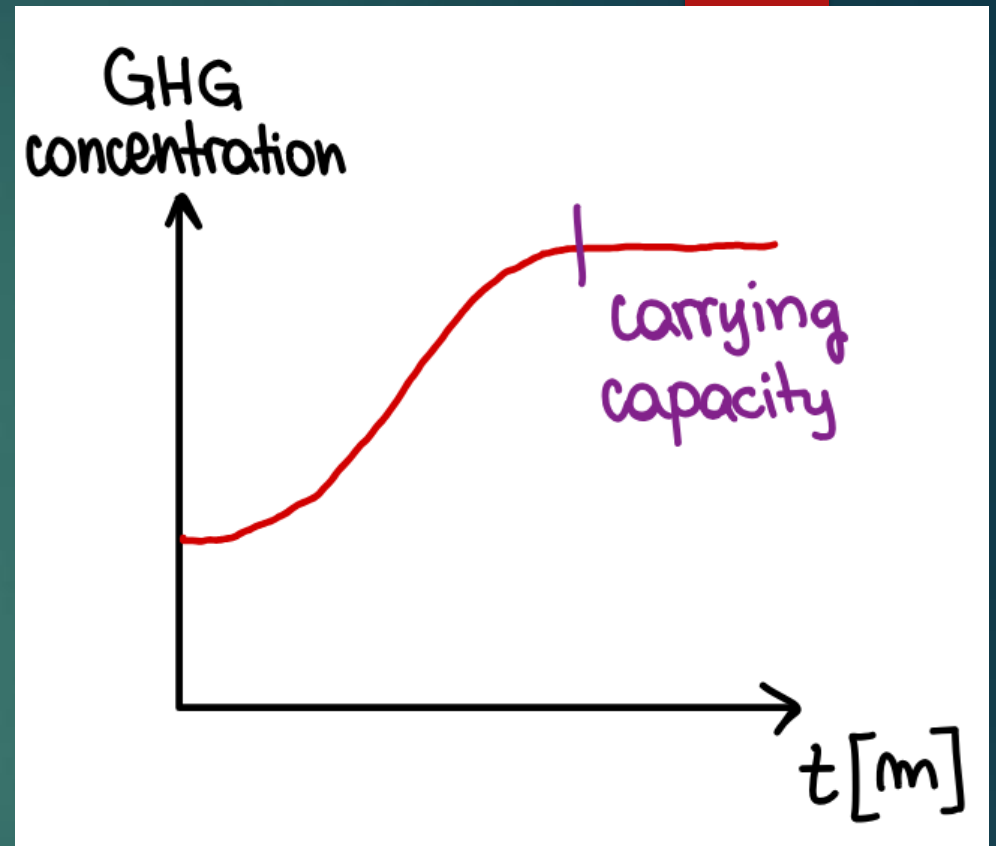
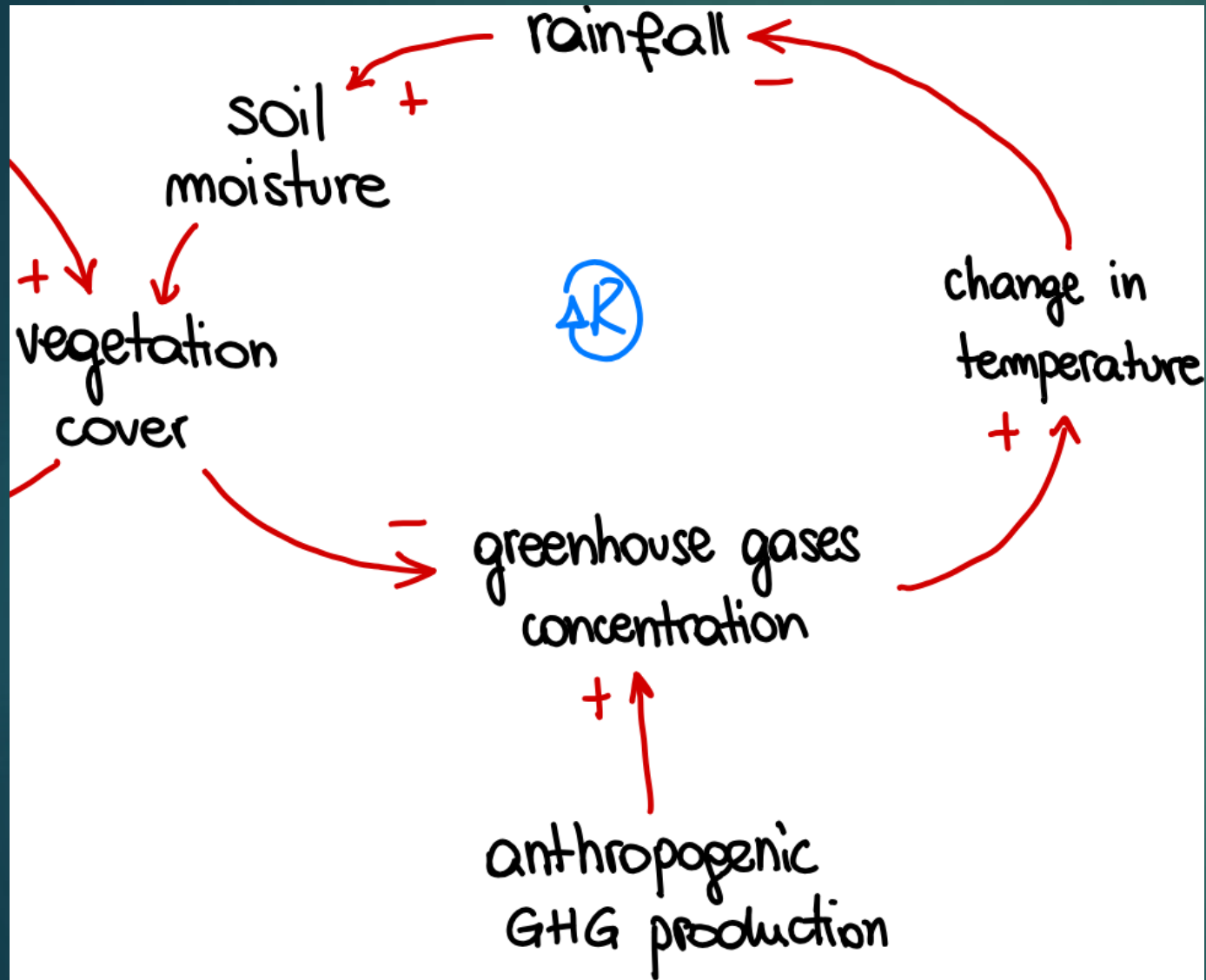


Reinforcing loop on the left



Assumption:
Nutrients in the soil do not get affected by external influences

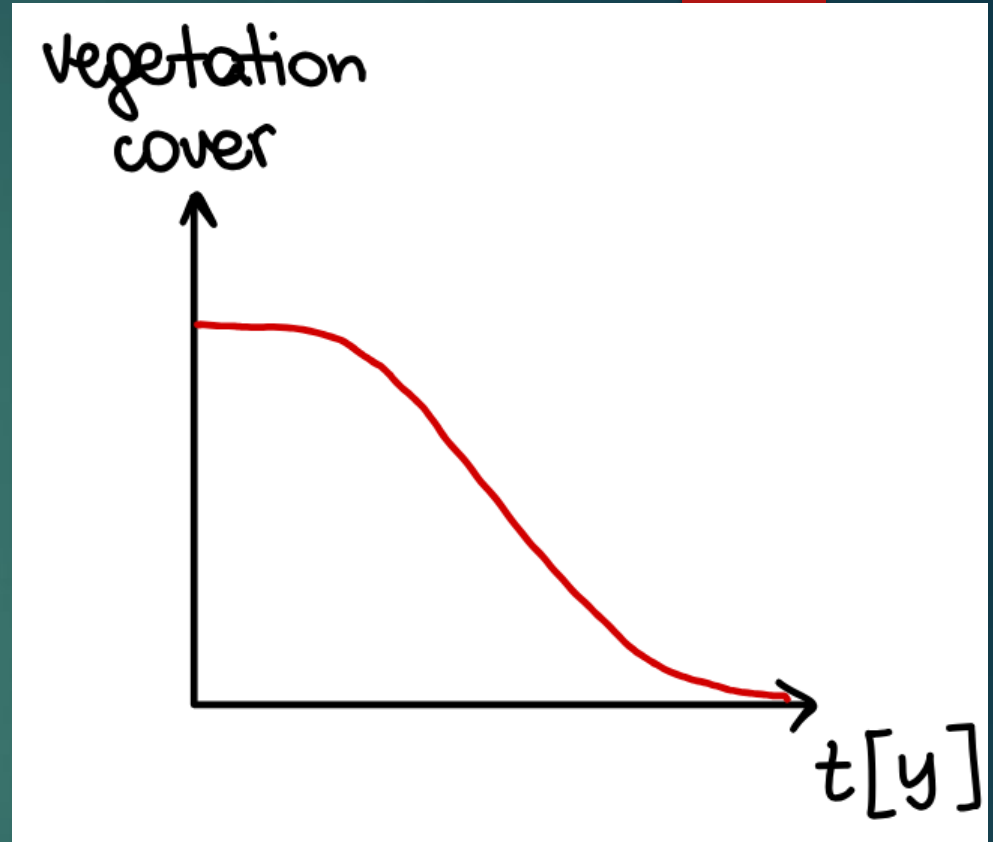
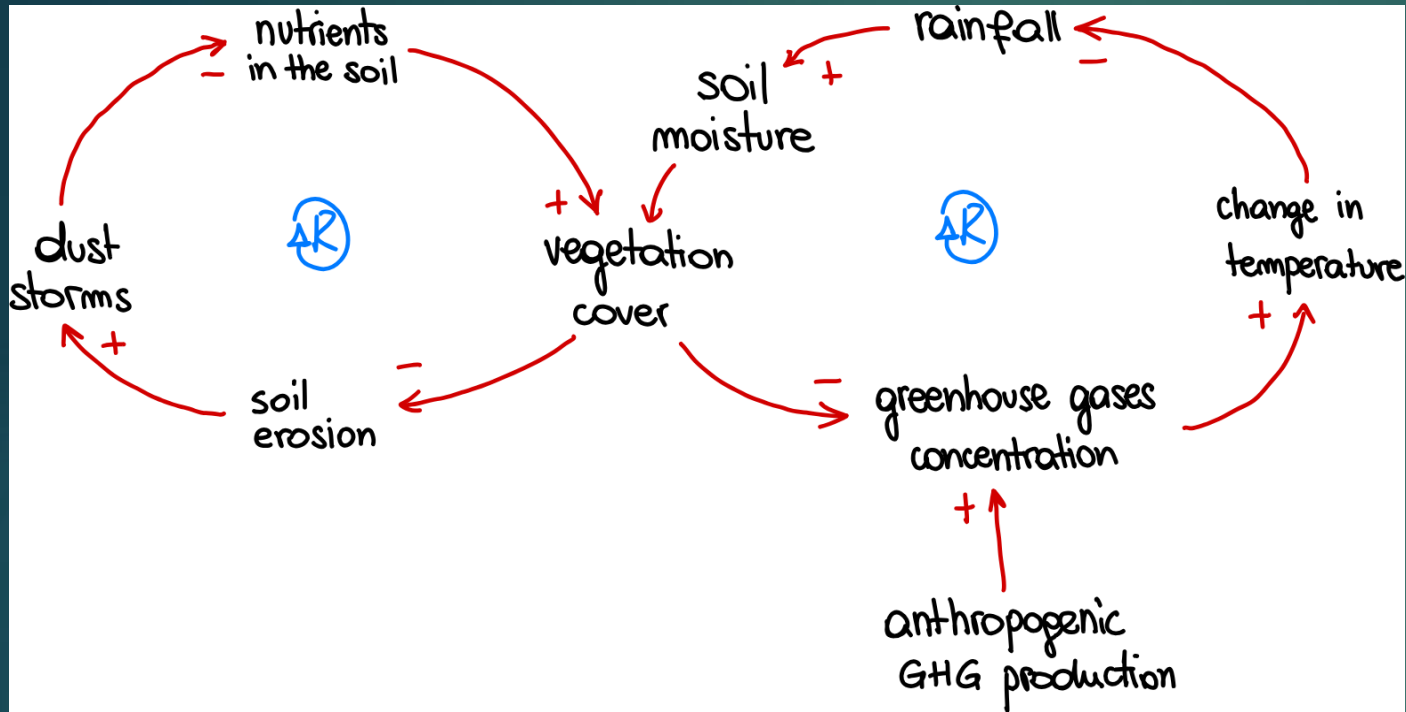
Reinforcing loop on the right



Assumption:

1. Greenhouse gases concentration is modeled locally
2. No external factors influence

Effect of both reinforcing loops on Vegetation cover



Assumption:

1. Vegetation cover is limited by available land → Carrying capacity
2. No drastic changes due to seasons

THANK YOU!