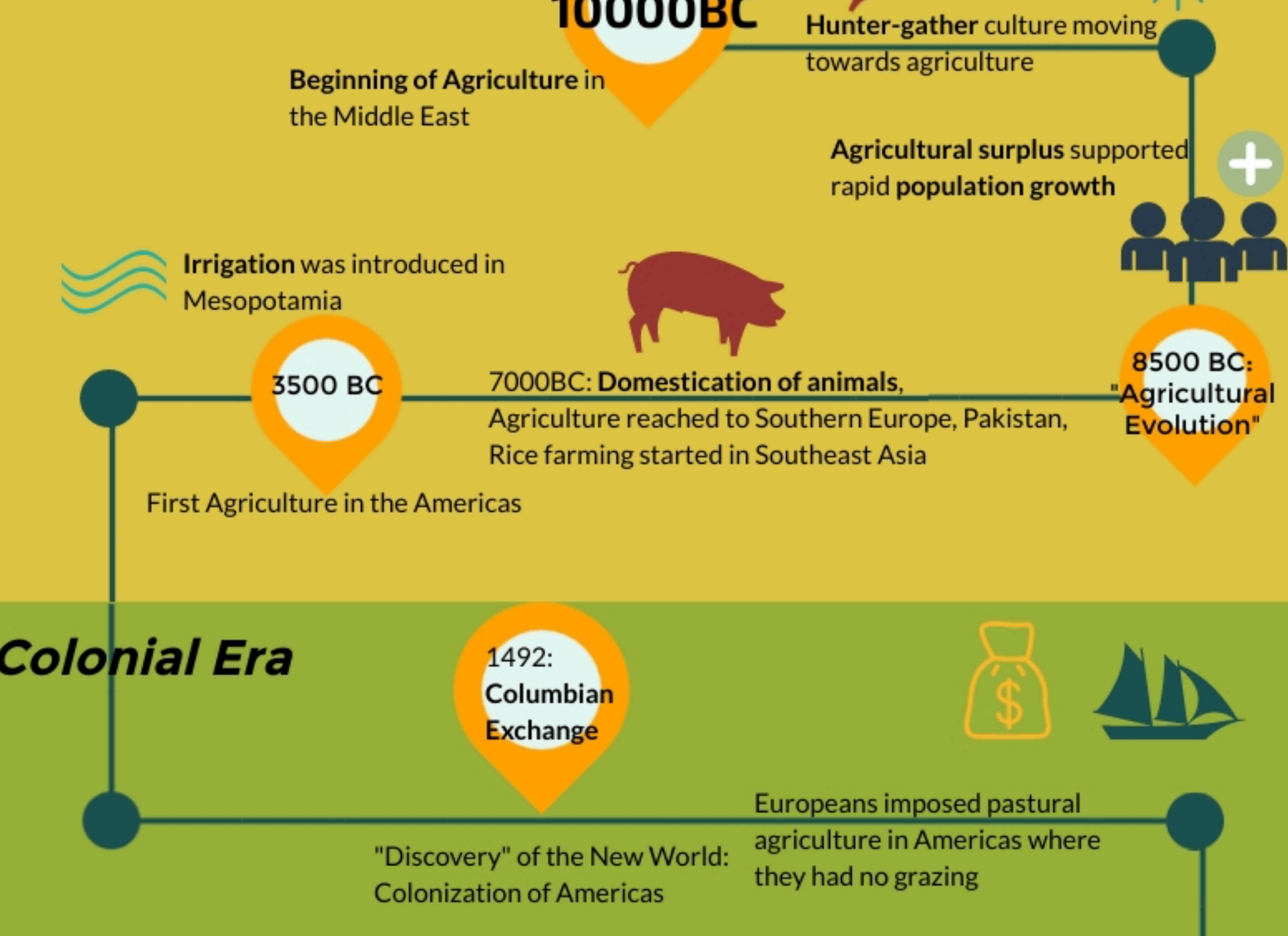
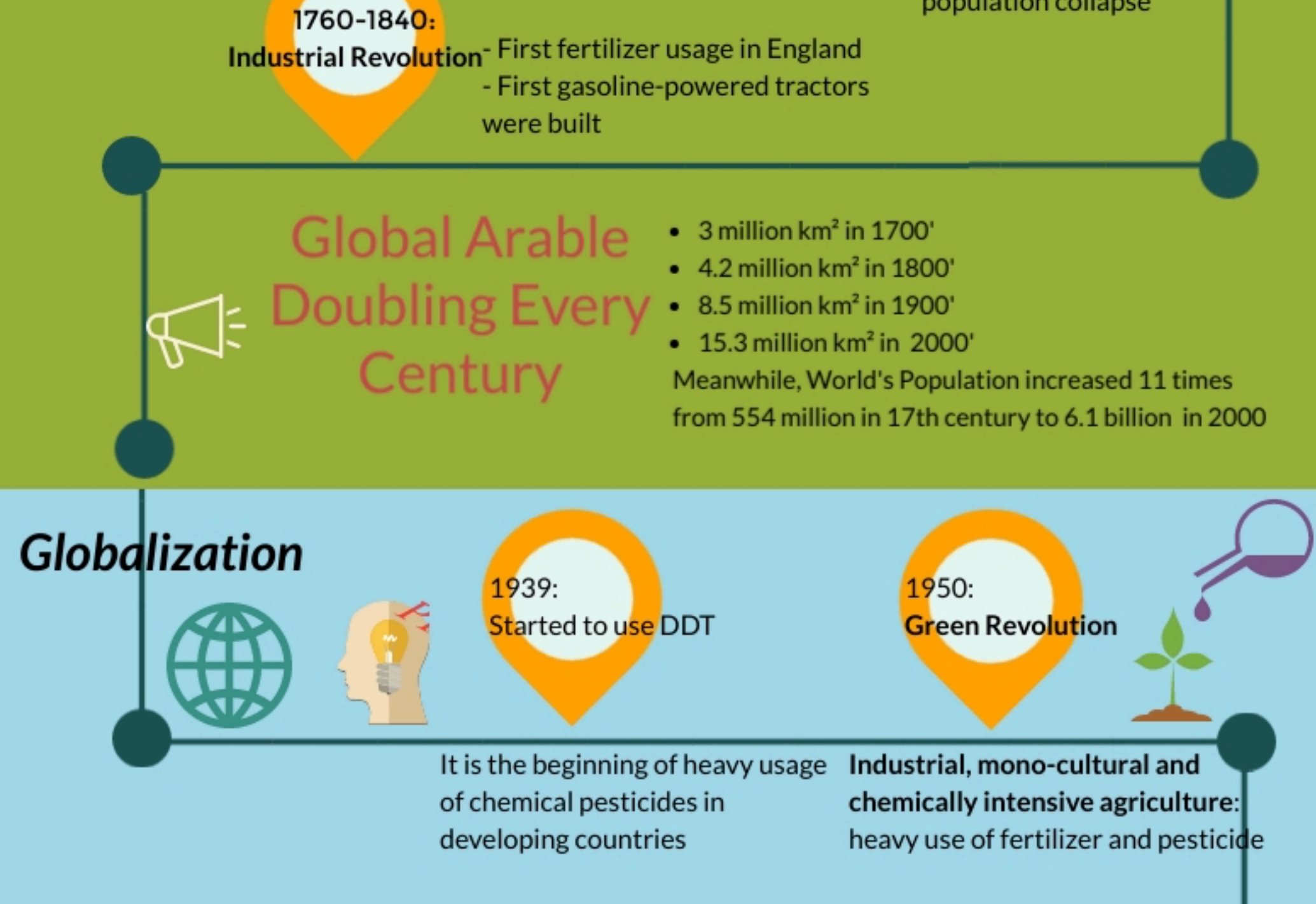


THE HISTORY OF Arable Land

Ancient Beginning



Colonial Era

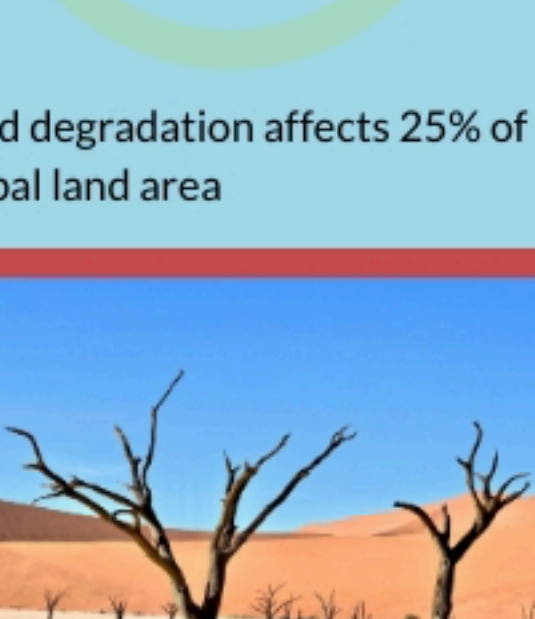


Global Arable Doubling Every Century

- 3 million km² in 1700'
- 4.2 million km² in 1800'
- 8.5 million km² in 1900'
- 15.3 million km² in 2000'

Meanwhile, World's Population increased 11 times from 554 million in 17th century to 6.1 billion in 2000

Globalization



Climate Change & Arable Land Crisis



Arable Land Crisis

Next Challenge for Mankind: Sustainably producing food for 11 billion of us

The arable land crisis is both cause and consequence of biophysical and socio-economic processes.

UN Analysis Model **DPSIR**

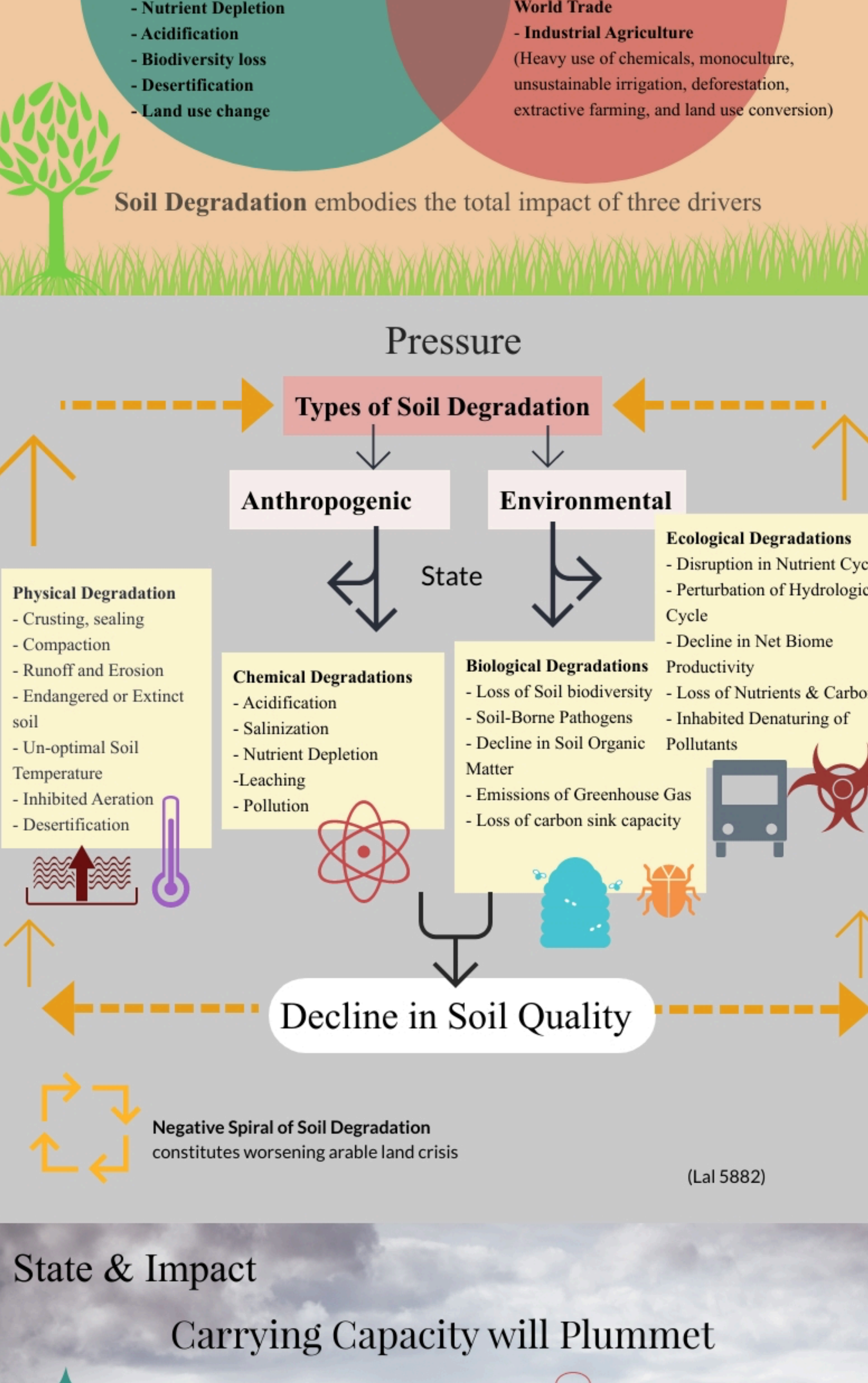
Driver Pressure State Impact Response

It can bring problems related to environmental degradation but it also suffers from the change in the environment, leading to **foodshortages**. With anticipated **water shortages** around the globe, we need to change how we produce our foods

(Lassetta 227), (Webb 455),

Driver of Arable Land Crisis

Soil Degradation as the Nexus



State & Impact

Carrying Capacity will Plummet

- Water Scarcity
- Biodiversity Loss
- Land & Soil Degradations

Diminishing Earth's capacity to sustain people

Hunger leads to **Social Unrest and Political Instability**

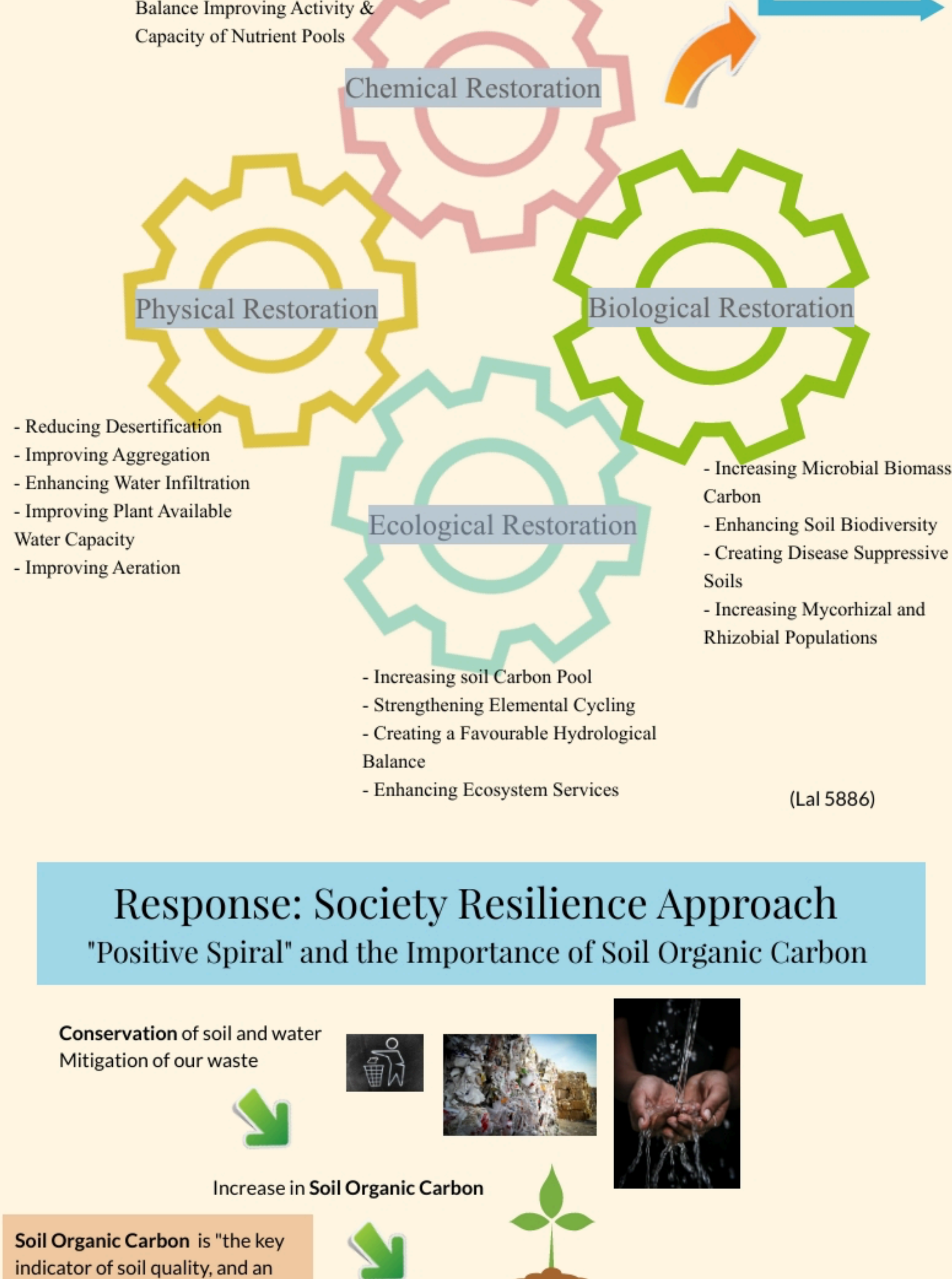
It is a Matter of Time

33% Of all soil (globally) is already degraded

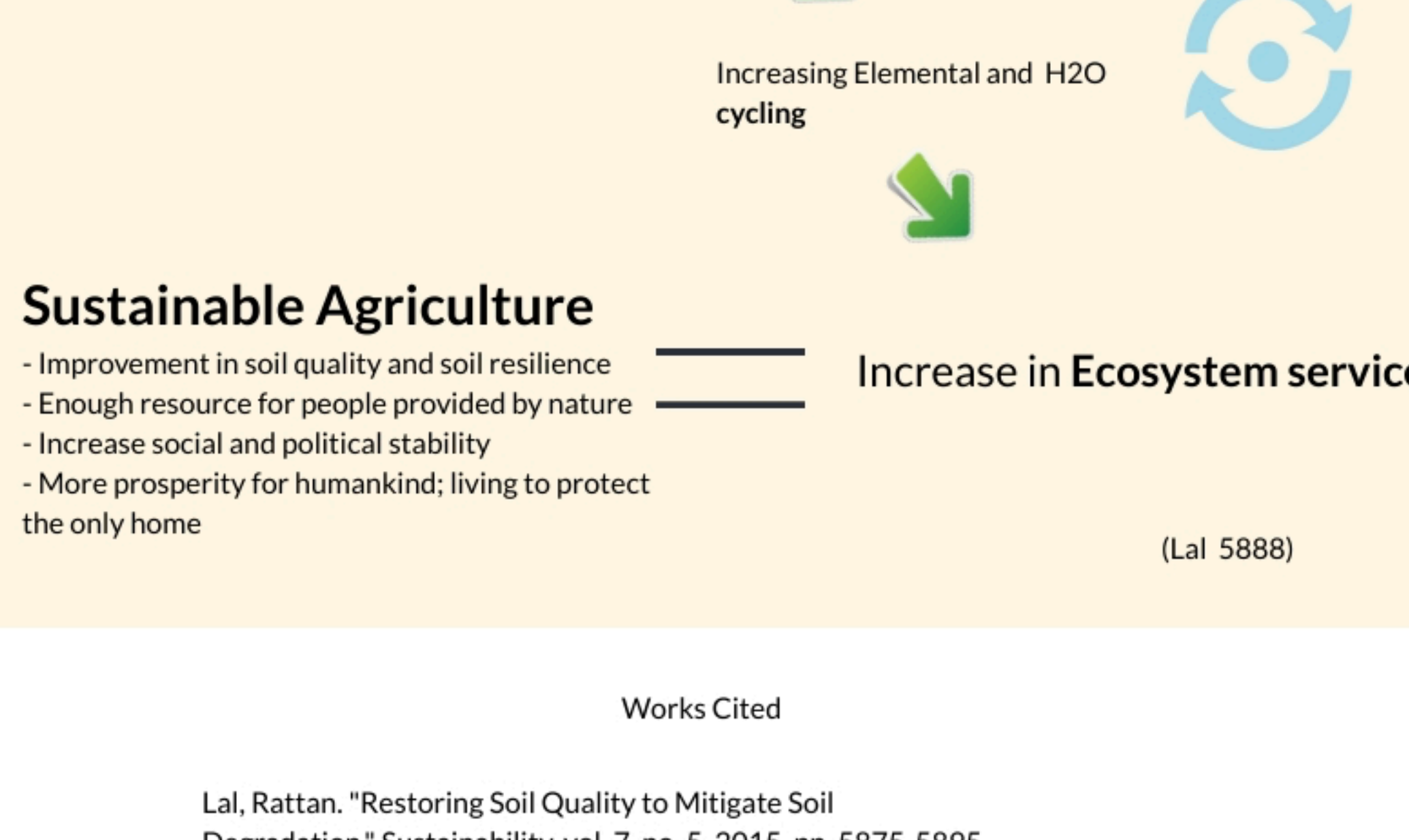
Resources will become more valuable and scarce because what ecosystem service can provide us will decrease while the population grow. Especially **Global South** facing greater threats

(Rockstrom 74)

Response: Holistic Strategy



Response: Society Resilience Approach



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