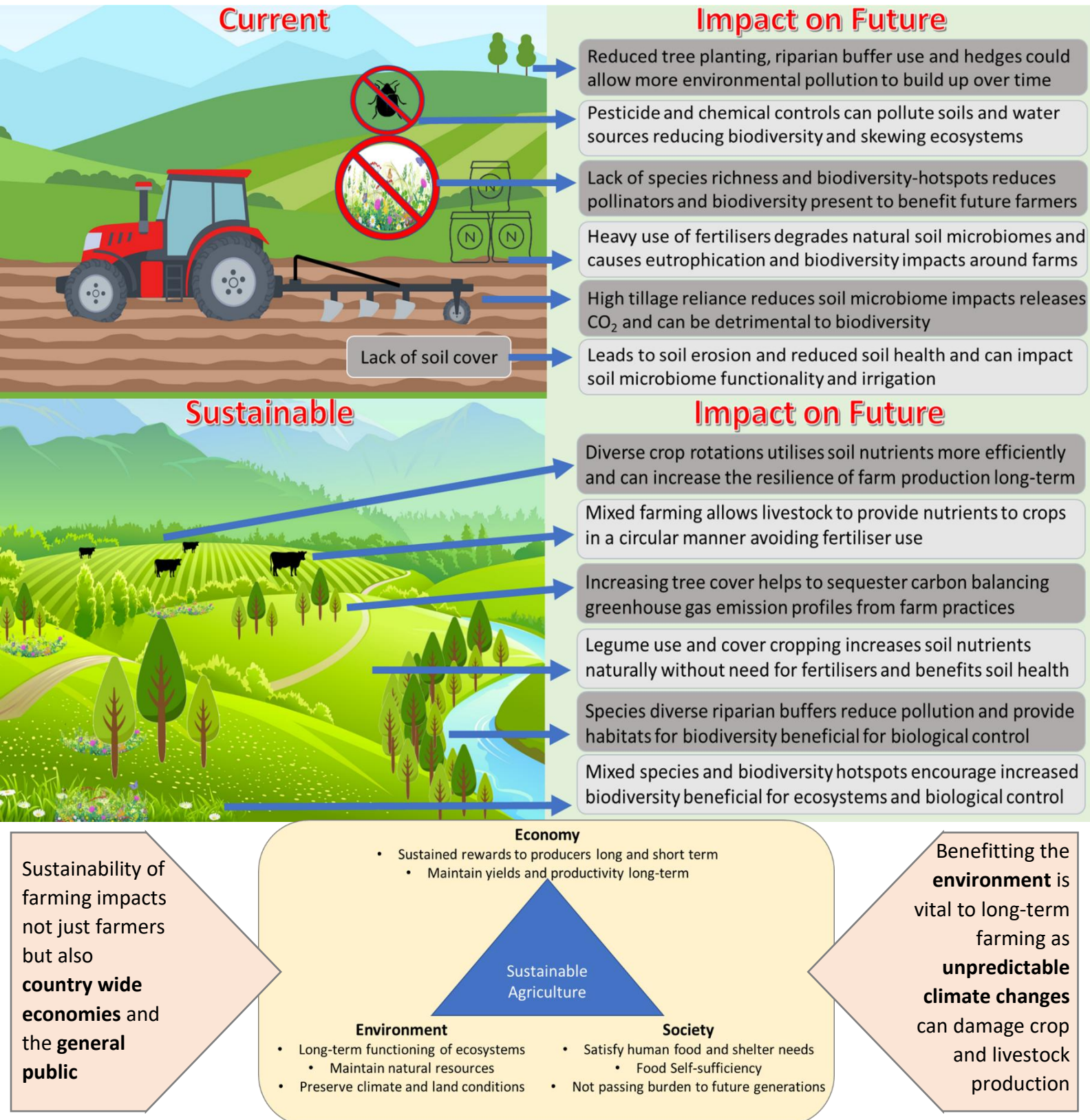


Sustainable and Regenerative Farming

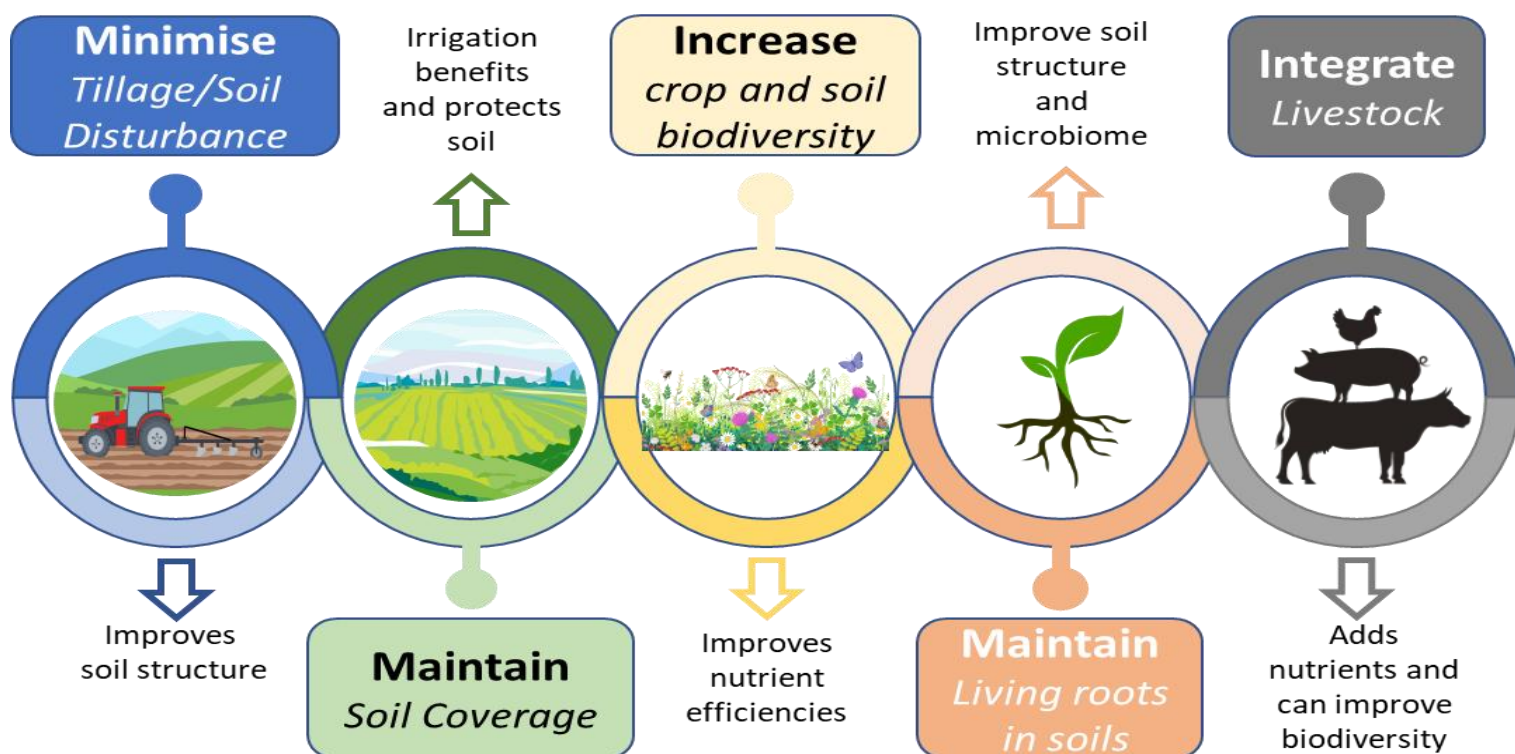
In the agricultural sector, there is increased talk of **sustainability and regeneration** on farms

But what does this mean?

Sustainability focuses on ensuring current farm practices **don't harm future generations**



Regenerative farming theoretically differs in that it **focuses on improving situations** not just sustaining them. It aims to do this by **working alongside natural ecosystems**



Regenerative farming is often **used interchangeably** with sustainable farming and **many of the practices linked with these strategies overlap** but their impacts are most important

Practice	Suggested impact	Specific figures
Reduce or eliminate tillage	-Decreases compaction -Positive impact on soil fungi and invertebrates -Reduces greenhouse gas (GHG) emissions	-Compaction reduced available nutrients by up to 50% and increased nitrous oxide emissions by 400-500% -
Riparian buffers	-Reduces leaching and eutrophication of water sources -Positively impacts biodiversity -Offers alternative production diversity -Sequesters carbon	-Reduces phosphate entering water courses up to 85% -Reduces nitrogen up to 75% entering water courses -Improves river habitats for fish and invertebrates
Agroforestry	-Improves environments for livestock -Protection from the weather for crops -Dual production outputs for diversification -Improves biodiversity - Sequesters carbon	-Up to £15 per ha per year saved due to reduced soil erosion and balance of nitrogen and phosphorous in soils - 10% increases in soil organic carbon levels - Improves erosion control, biodiversity, and soil fertility
Selective forage use and species-rich pastures	-Improve livestock growth efficiencies and nitrogen use efficiency (NUE) -Reduces GHG emissions -Reduces fertiliser need -Sequesters carbon	-Increased water-soluble carbohydrates in forage decreased methane emissions in lambs between 9 - 25% -Reduces nitrogen in cattle urine by up to 20% reducing downstream pollution -NUEs (in high sugar grasses with white clover) were up to 42% higher than standard pastures

Environmental strategies like these seem vital for the future of farming. As such, less focus should be on defining terminology. Instead we should be **aiming to incorporate such practices** in targeted and efficient ways across all aspects of agriculture

