

• General information about LIFE+ Climagri

Climagri is a project financed by the EU LIFE Program which overall goal is to establish strategies for managing extensive agricultural crops, that together contribute to mitigating climate change and adapting crops to both current and future climate conditions, and which also serve to support and develop EU and member states environmental policy and legislation regarding climate change.

• Mitigation of Climate Change

After 4 seasons, Soil Organic Carbon (SOC) content in plots under no-till has increased by 4,71 t ha⁻¹ with respect to the plots that are being managed in a conventional way (Figure 1 and Table 1). This implies an average annual increase of 1,18 t ha⁻¹ of carbon in no-till.

Based on these figures, it can be stated that adoption of Conservation Agriculture (CA) in Spain would lead to an annual percentage increase of carbon in agricultural soils of 2.6%, largely accomplishing the amount proposed in the 4 per 1000 initiative.

Depth (m)	Δ%	Δt CO ha ⁻¹	Δt CO ₂ ha ⁻¹
0-0.05	14.12	1.73	6.40
0.05-0.10	12.15	1.45	5.36
0.10-0.20	6.34	1.53	5.66
0-0.20		4,71	17.42

Table 1. Increase of Organic Carbon and CO₂ in no-till as compared to conventional farming.

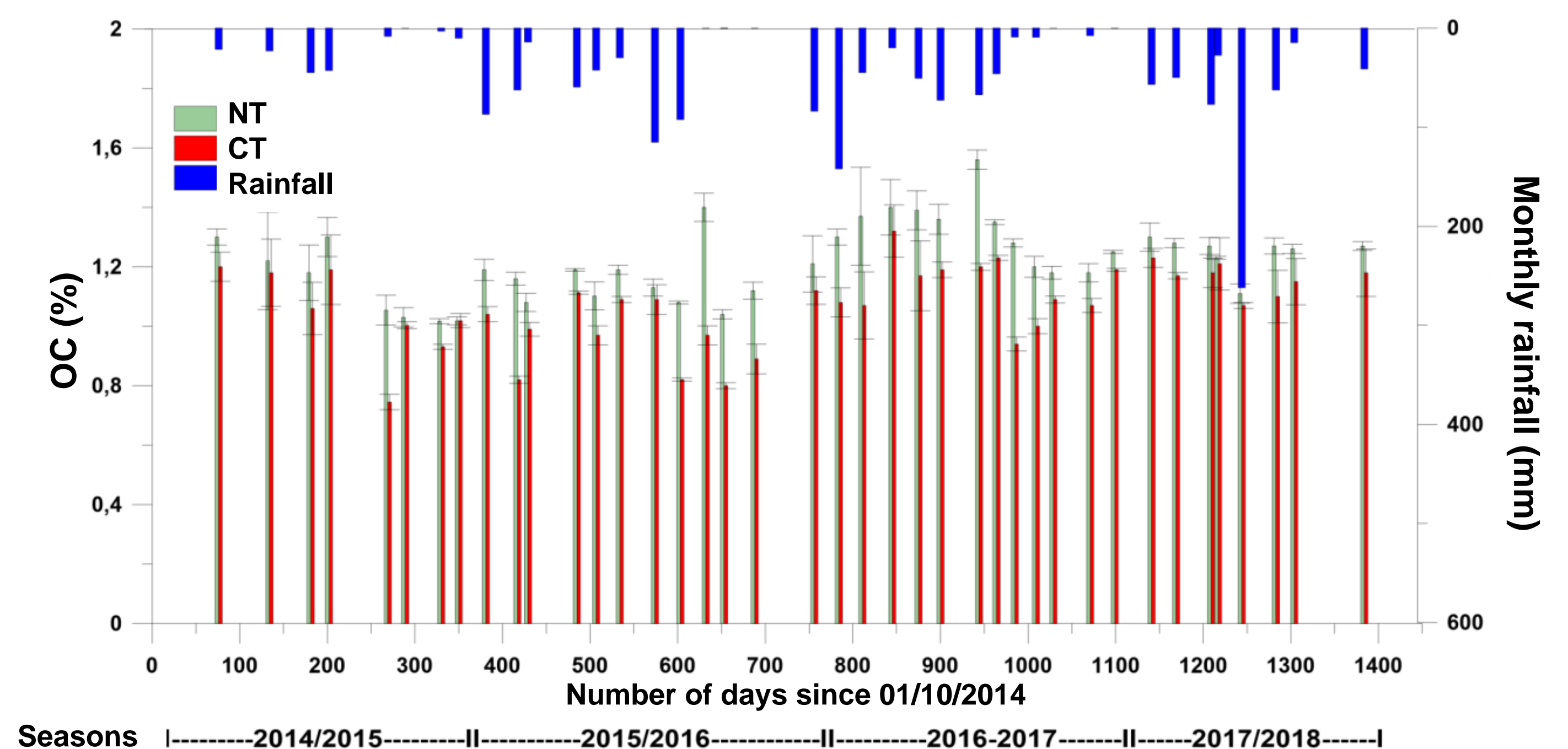


Figure 1. Organic Carbon (OC) content in the top 20 cm of soil. LEGEND: No-Till (NT), Conventional Tillage (CT).

• Replicability

Positive results of Climagri are valid not only for the Mediterranean basin. Different studies show that, through the implementation of Conservation Agriculture, carbon sequestration considerably increases in all regions. Below, the results of two reports for Europe (Figure 2) and for Africa (Figure 3), based on literature reviews of scientific articles published in peer-reviewed journals, are shown:

• Europe

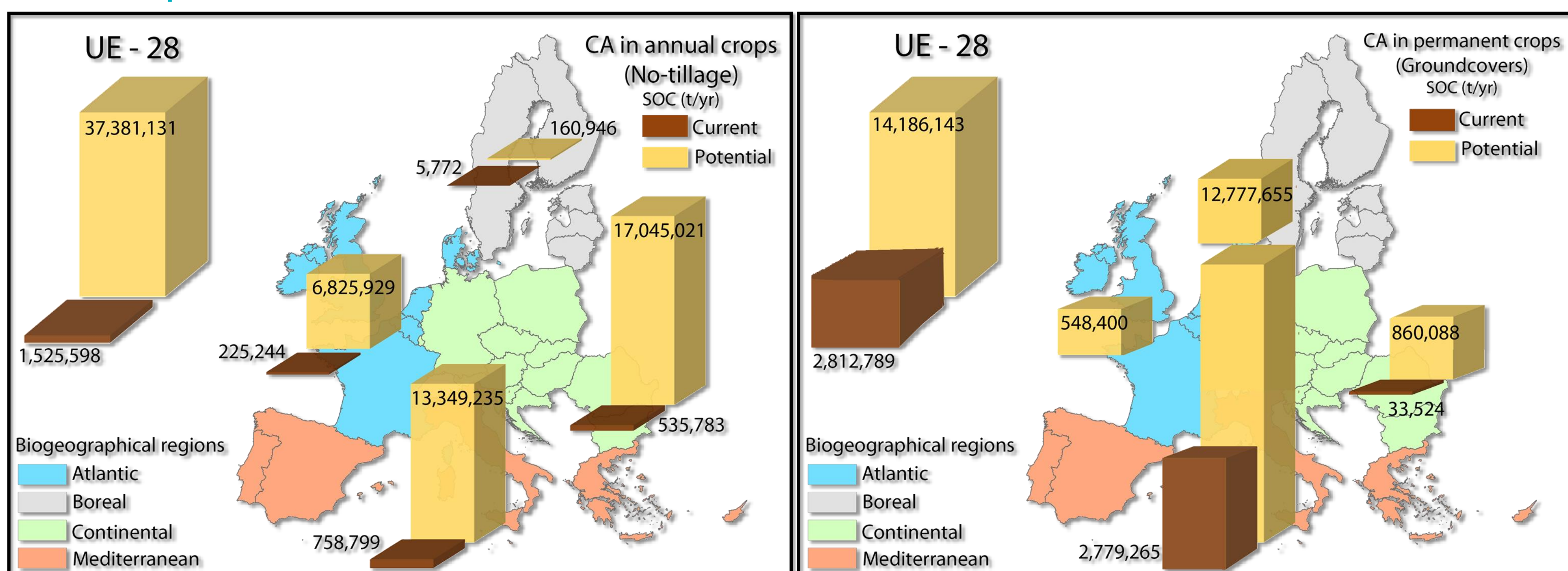


Figure 2. Current and potential SOC fixed in agricultural soils in Europe through CA. Source: Report "Conservation Agriculture: Making Climate Change Mitigation and Adaptation Real in Europe" (González-Sánchez et al, 2017).

• Africa

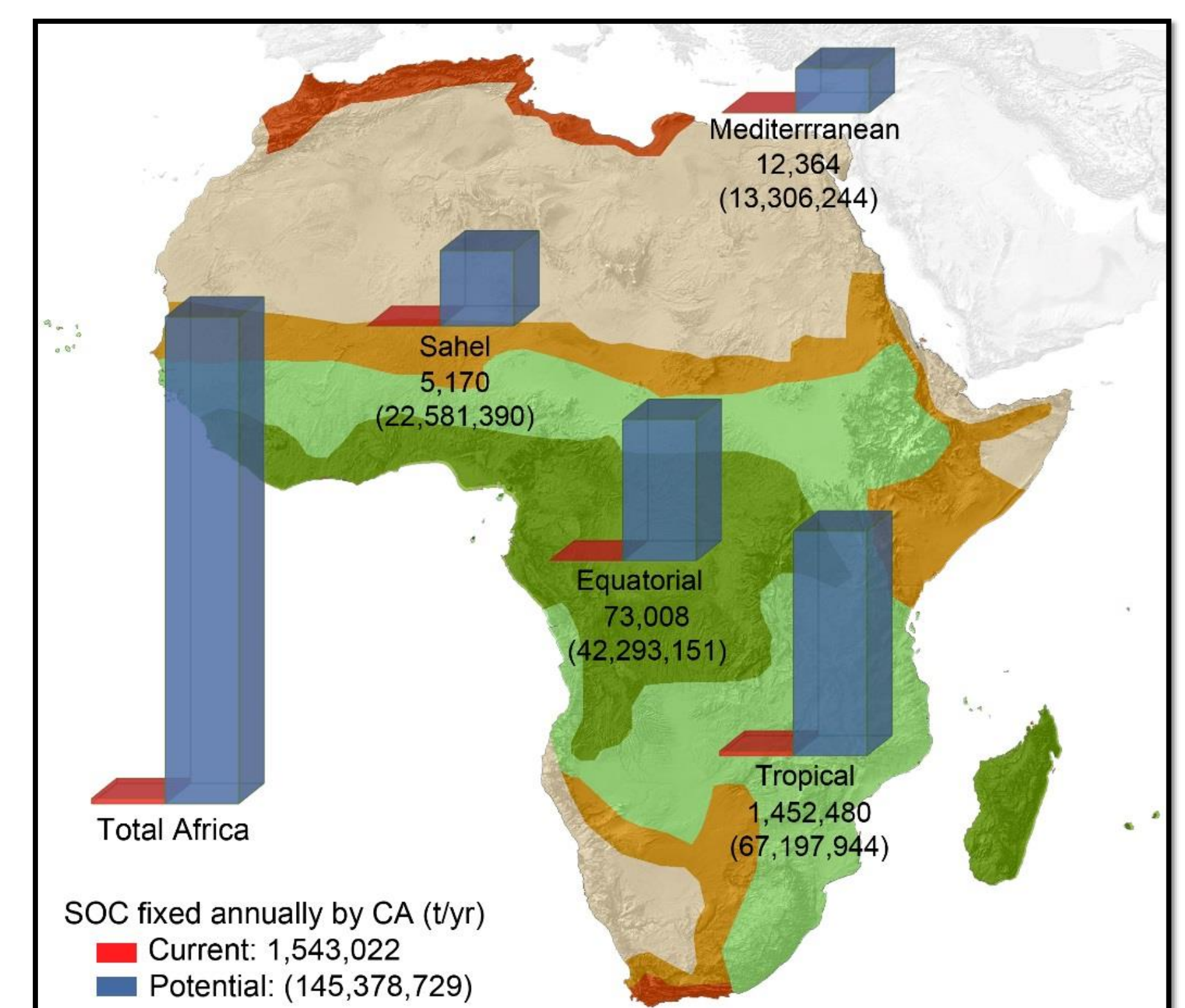


Figure 3. Current and potential SOC fixed in agricultural soils in Africa through CA. Source: Report "Making Climate Change Mitigation and Adaptability Real in Africa with Conservation Agriculture" (González-Sánchez et al, 2018).

PROJECT PARTNERS



AUTHORS

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