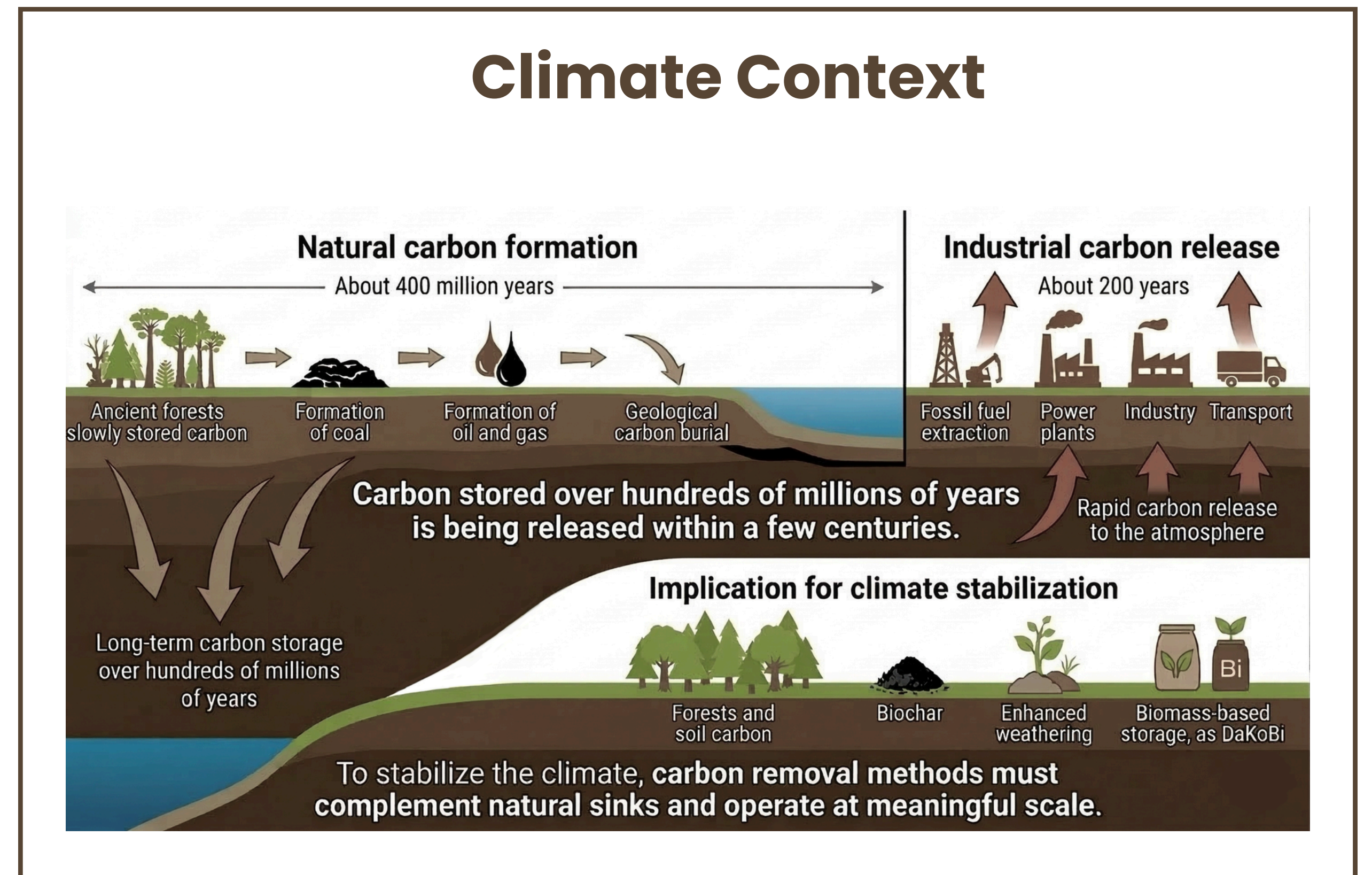


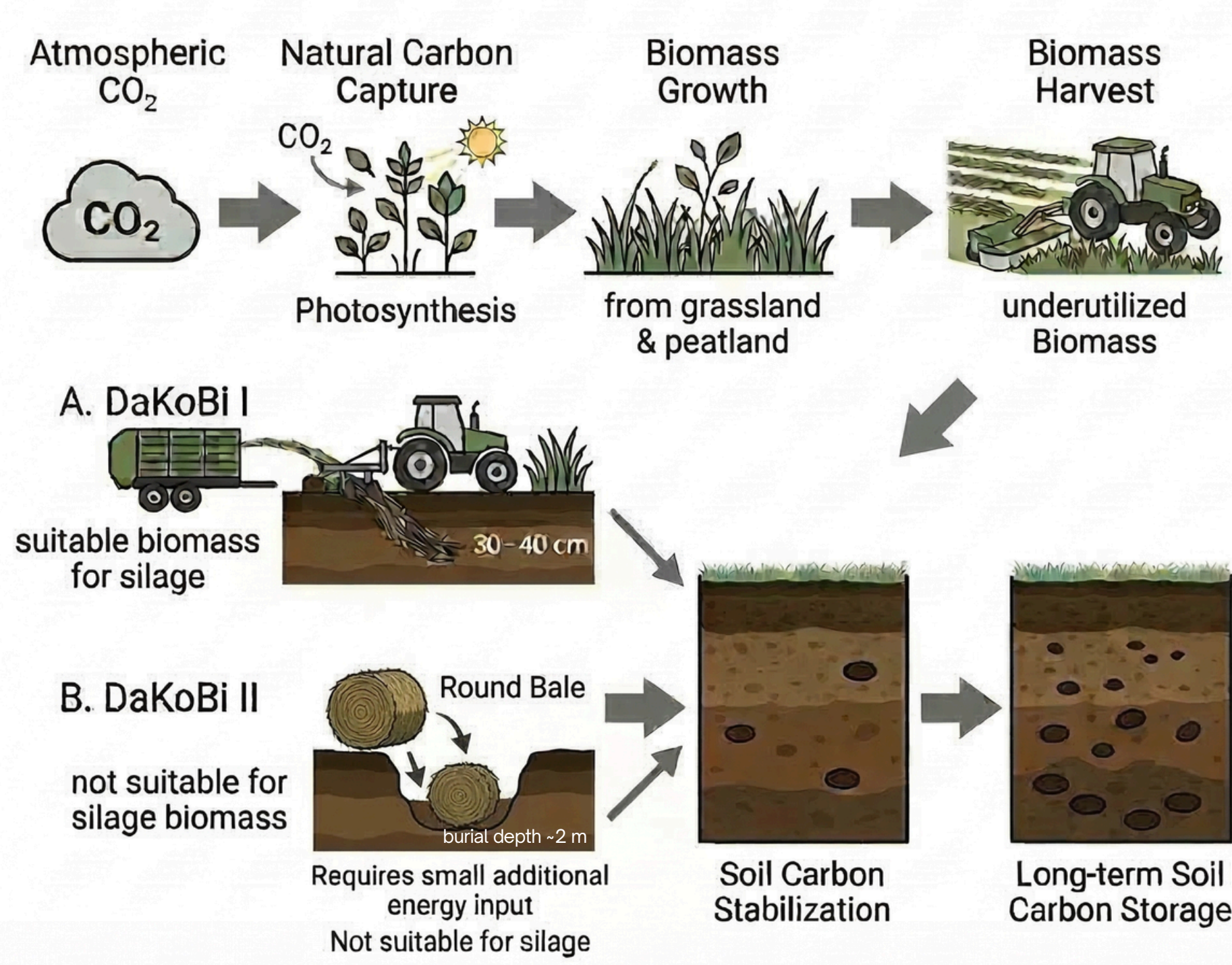
DaKoBi – Low-Energy Deep Soil Carbon Stabilization

Utilizing residual landscape biomass for scalable carbon removal in agricultural systems

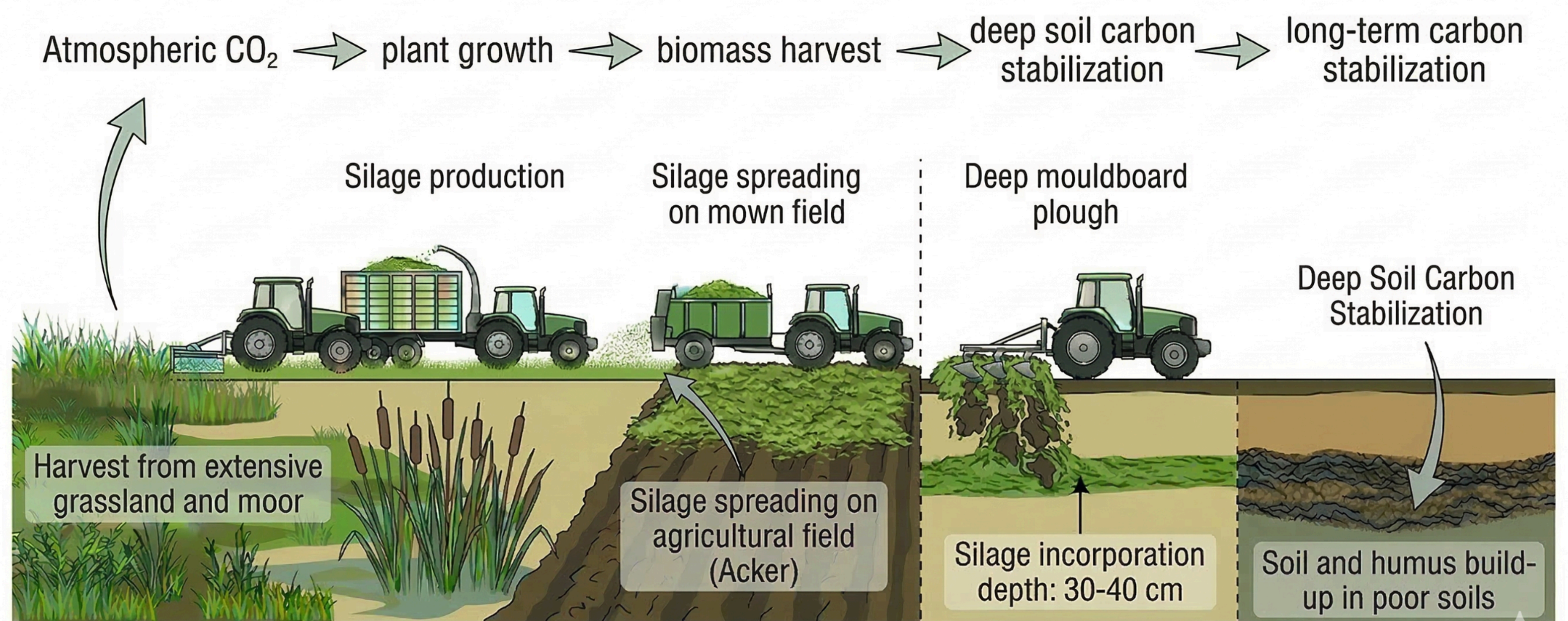


Concept

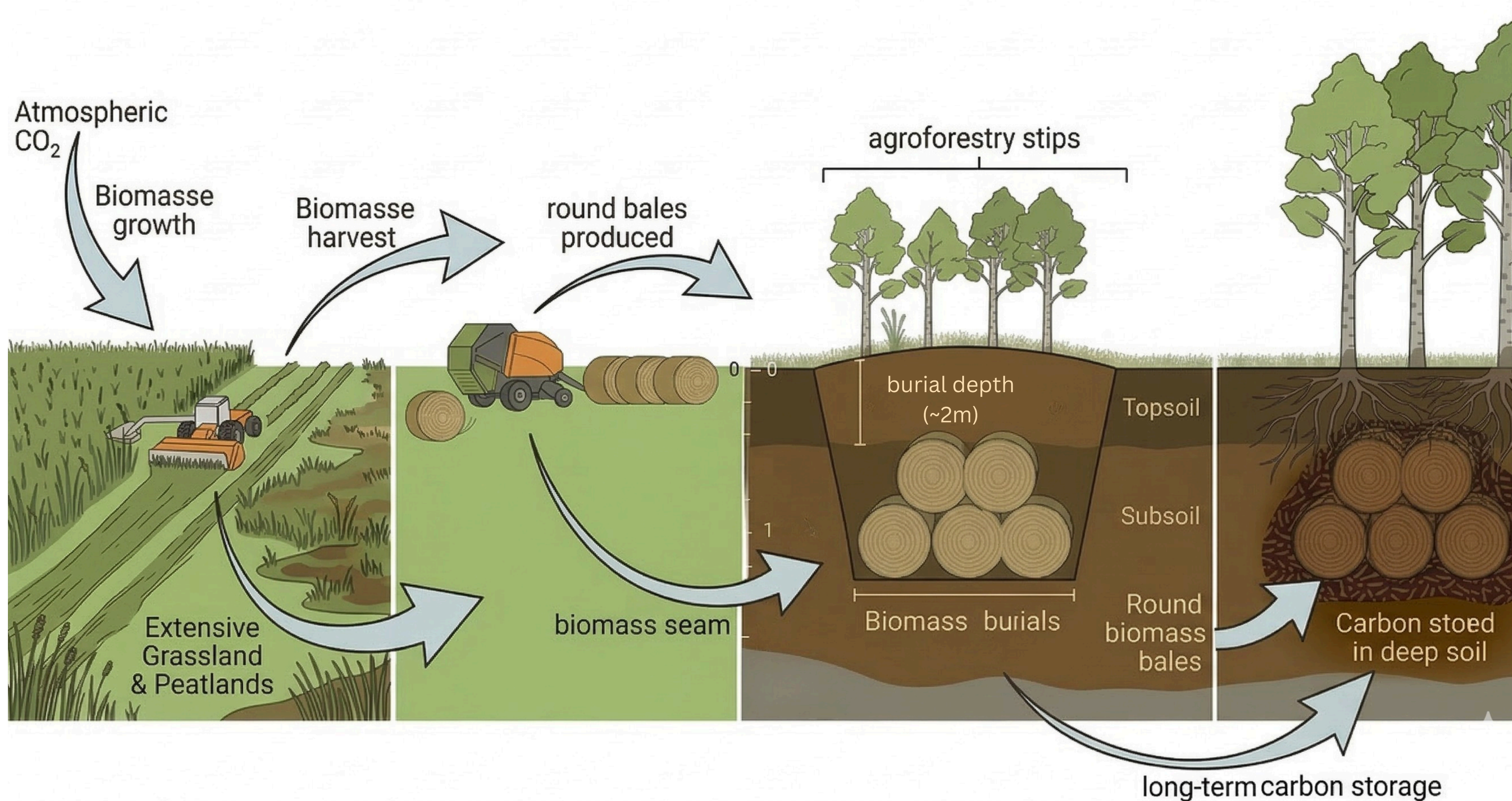
Bridging soil carbon farming and industrial carbon removal. Conceptually related to biomass-based CDR (BIRCS).



Method I – Deep Incorporation of Silage



Method II – Biomass Seams



Comparison with other Carbon Removal Approaches

| Energy intensity | 0 | 3 | 6 | 9 | 12 |
|---------------------|-----|-----|-----|------|-----------------------|
| Low Energy | | | | | |
| Afforestation | 0.3 | | | | medium to low Storage |
| DaKoBi 1 | 0.3 | | | | medium Storage |
| DaKoBi 2 | 1.5 | | | | high Storage |
| Mid Energy | | | | | |
| Enhanced Weathering | | 3.0 | | | medium Storage |
| Biochar | | 3.0 | | | medium Storage |
| High Energy | | | | | |
| BECCS | | | 8.0 | | high Storage |
| DACCS | | | | 12.0 | high Storage |

Indicative energy demand compared with other carbon removal pathways. DaKoBi approaches operate within the low-energy range of biomass-based CDR.

Potential co-benefits:

improved soil structure → increased water retention → utilization of underused landscape biomass → integration with agroforestry systems

Scientific Status

DaKoBi is a conceptual carbon sequestration approach currently under scientific evaluation. The working paper provides the basis for pilot projects, validation studies and the exploration of potential regulatory pathways. Letters of support from initial partners have been received, and further collaboration is sought with research institutions, MRV experts, pilot farms and funding partners.

more information



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