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# A classification of maintenance practices for agricultural runoff management structures to enhance climate adaptation scenarios and strategies

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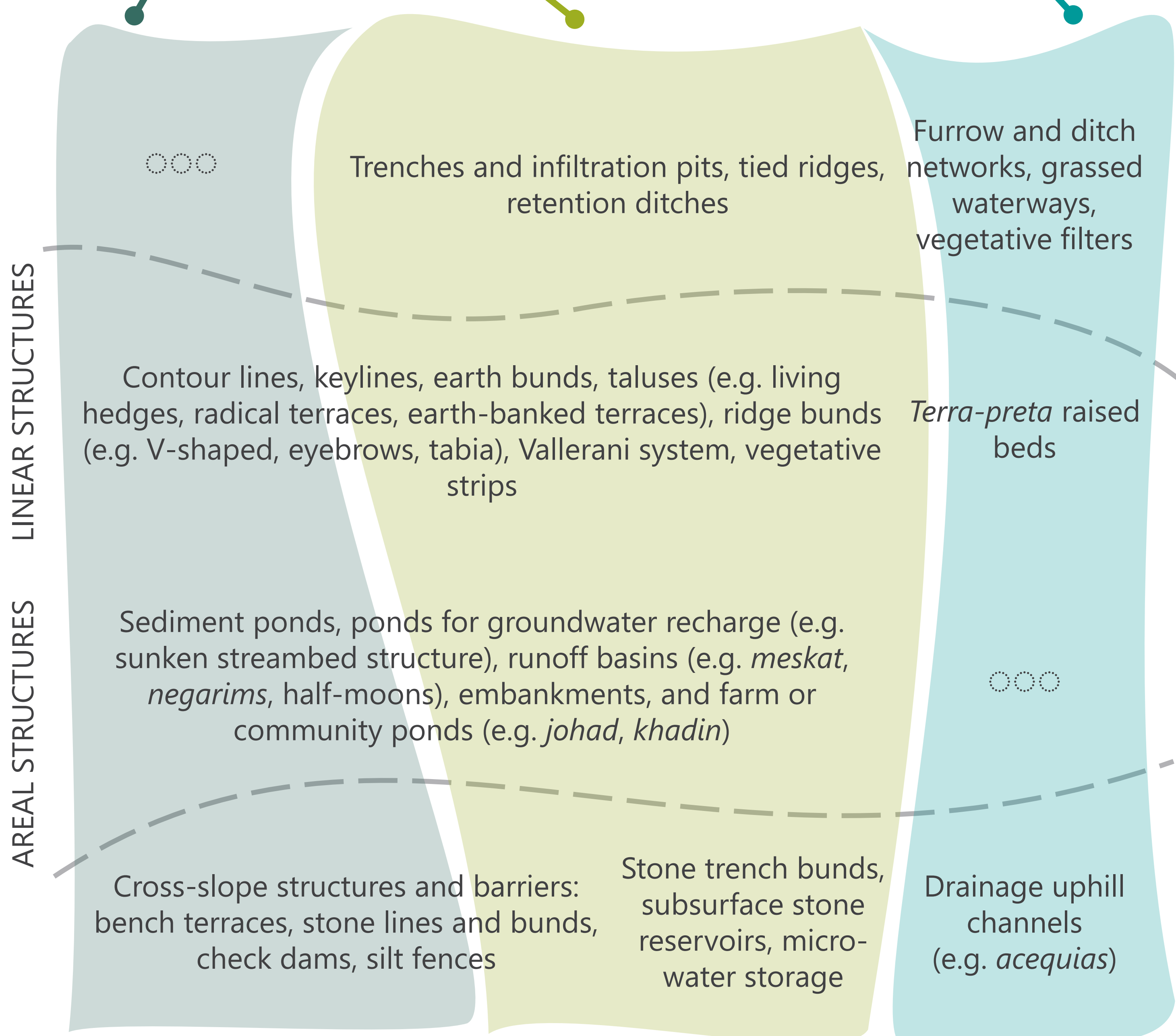
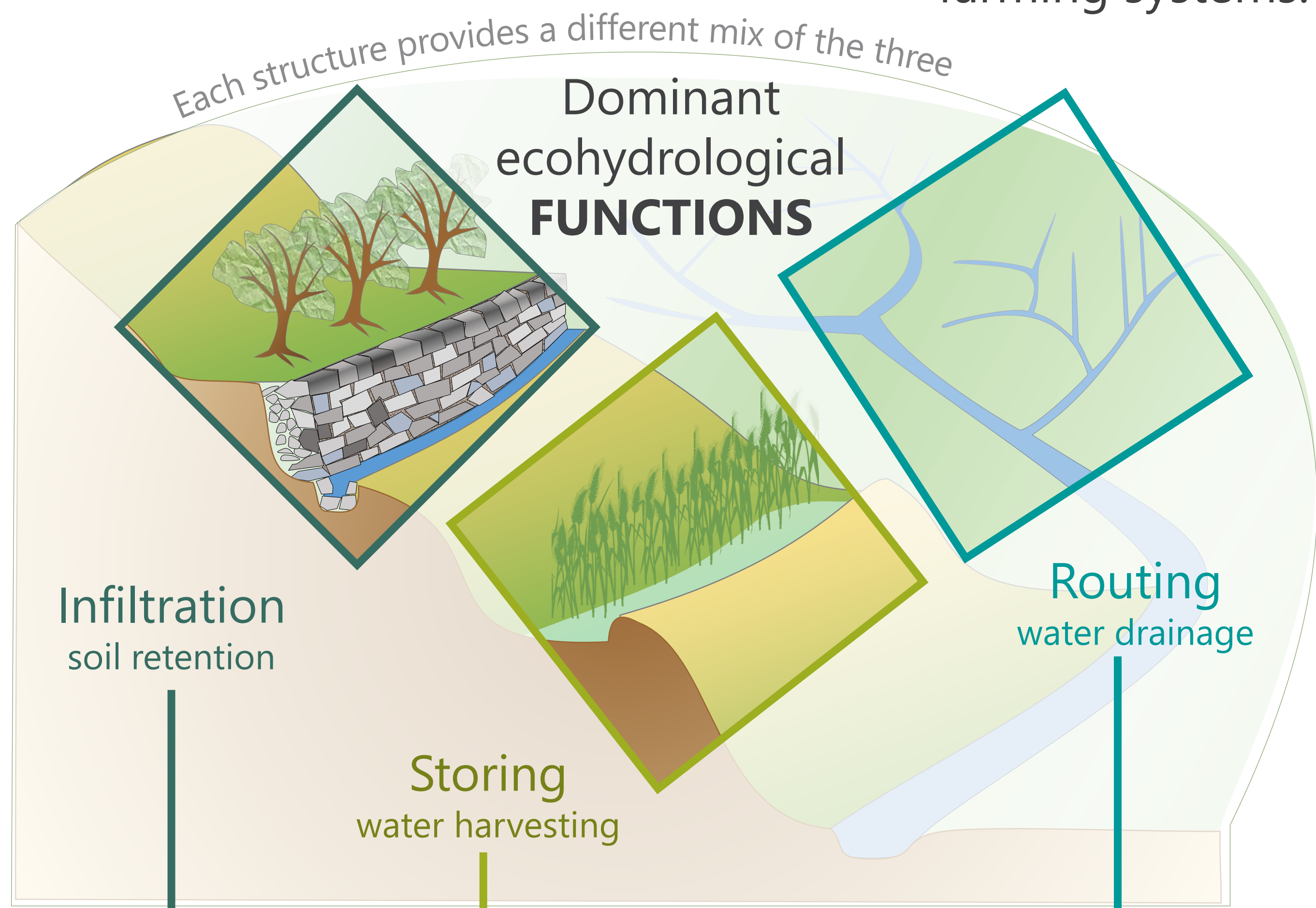
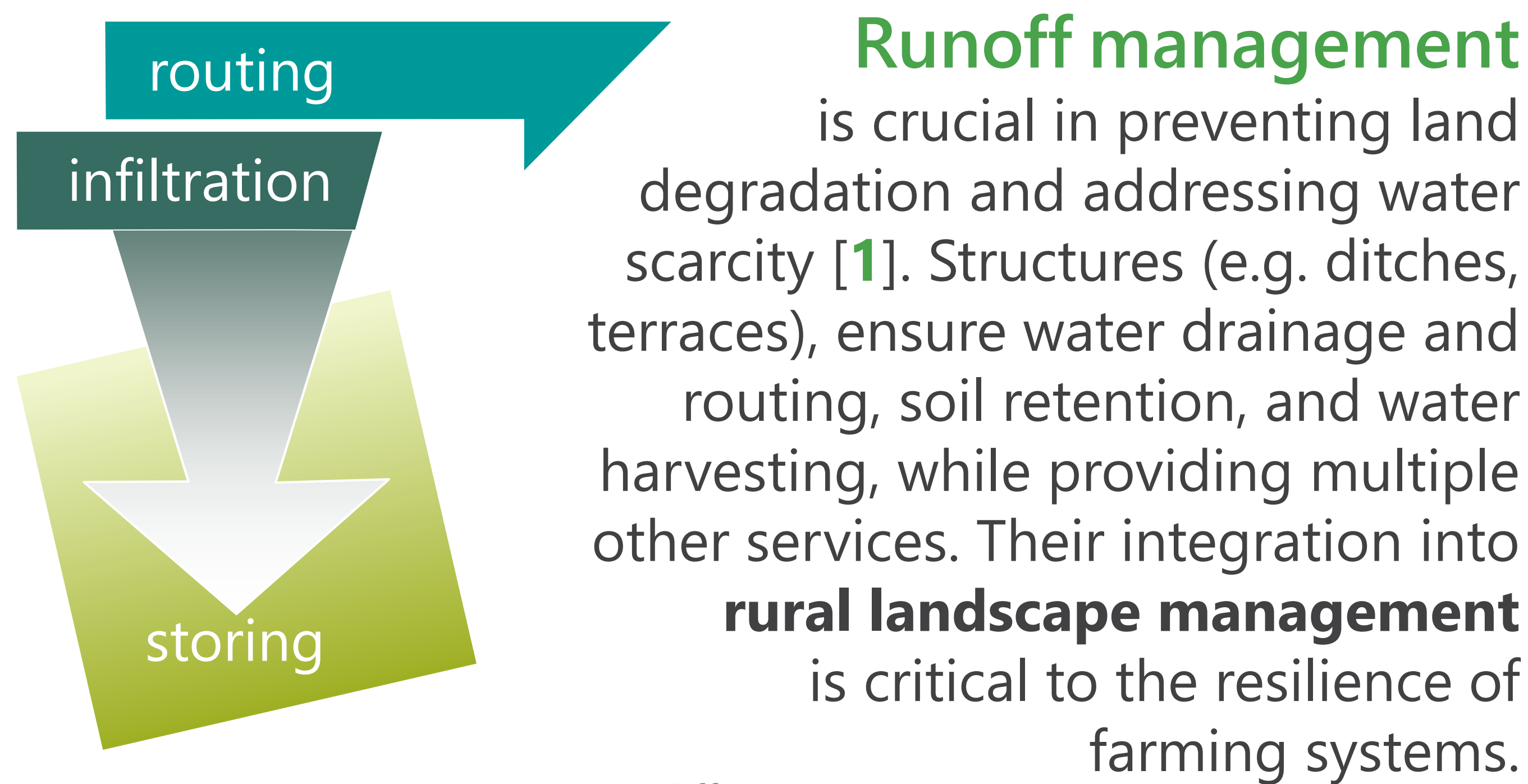


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A classification of maintenance practices for **agricultural runoff management structures** to enhance climate adaptation scenarios and strategies

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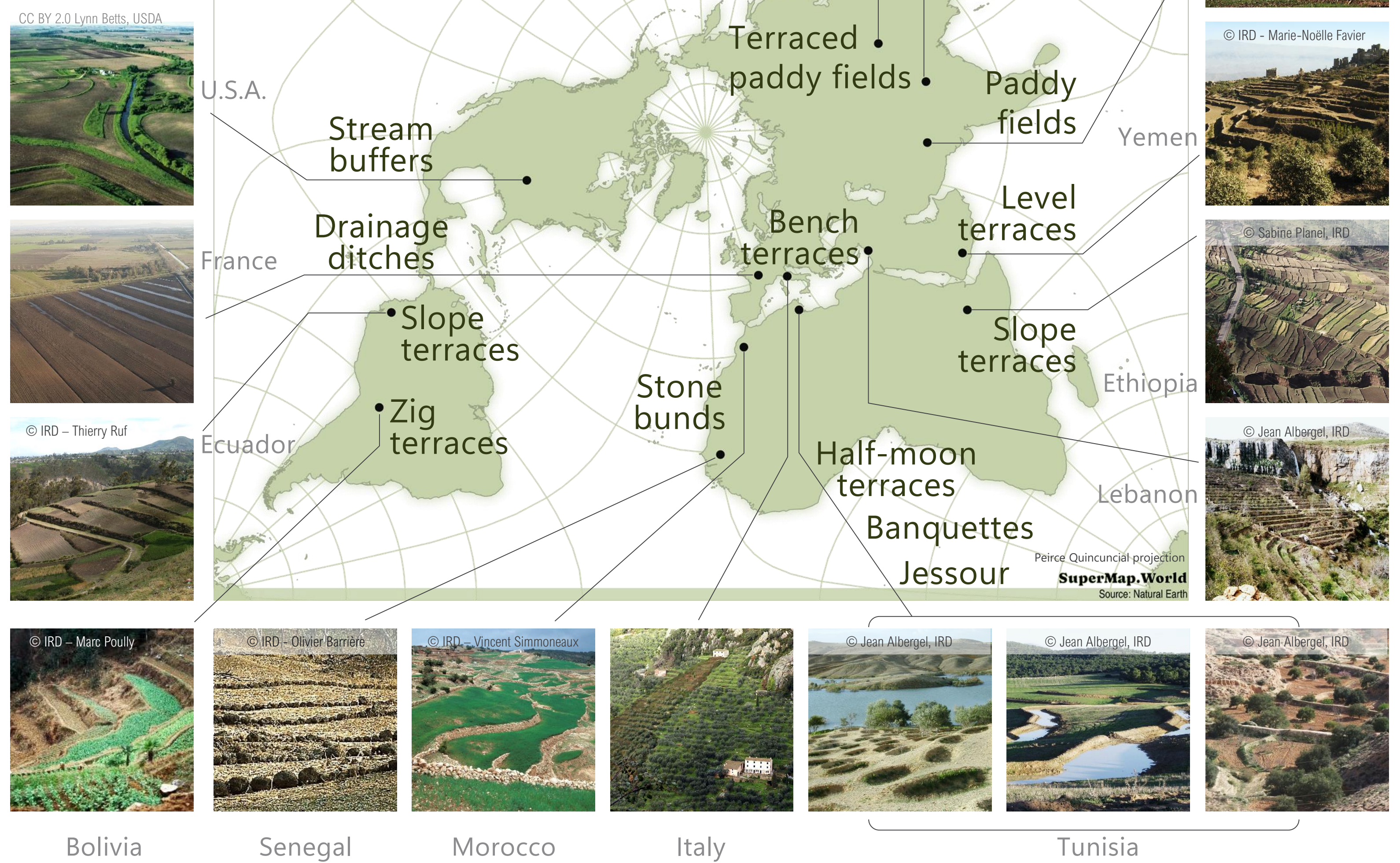
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**Structures** vary widely in shapes, systems, and nomenclature, reflecting local contexts.

**Maintenance practices** are still poorly described, despite their relevance to face **climate change consequences**: soil erosion and flooding risks, droughts and water harvesting needs.

Examples of the heterogeneity of shapes, materials and naming of the onsite runoff management structures worldwide. Terrace naming is based on literature [2,3], unless otherwise specified by the authors of the photos.



**Ditching**  
section cleaning (e.g. vegetation and sediment management)

**Shaping**  
shape and earthwork renovation

**Building**  
reparation, rebuilding, and veget. manag. (+ materials)

We propose to cross three fundamental **construction ACTIONS** based on the ethnological concept of "technical fact" [4] with ecohydrological functions, and geometries.

The result is the definition of a **framework** for harmonising the description of maintenance practices.

Future works should explore the integration of structures' **maintenance** into the farming system and landscape management of soil and water.

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[2] Chen, Wei, & Chen (2017) Effects of Terracing Practices on Water Erosion Control in China: A Meta-Analysis, *Earth-Science Reviews* 173:109–21  
[3] Dorren, & Rey (2004) A Review of the Effect of Terracing on Erosion. In *Briefing Papers*, 97–108. Cinque Terre (Italy): Soil Conservation and Protection for Europe (SCAPE) project  
[4] Gras et al. (1989) *Le Fait technique en agronomie: activité agricole, concepts et méthodes d'étude*, Ed. L'Harmattan, Paris