

## Supplementary Files

For this study, spatial-explicit map calculations were made in ArcGIS Pro 2.4.3, using the projected coordinate system Palestine\_1923\_Palestine\_Grid. Shapefiles were converted to raster maps with a cell size of 25m (or larger, when the spatial resolution of input data was larger).

**Table S1.** Three suitability types for implementation of eyebrow terraces with olive trees analyzed in this study.

Suitability types	Land use base layer	Rainfall	Slope	AWC
Rainfall & slope	+	+	+	
Rainfall & AWC	+	+		+
AWC & slope	+		+	+

**Table S2.** Estimated olive yield for the three suitability zones in the West Bank (see Figure 2) for the business-as-usual (BAU) and terracing scenarios based on results from the crop-water balance models.

Suitability zones	Scenario	Olive yield reduction (%)	Olive yield (tonne/ha)
Rain & slope	BAU	27.8	1.75
	Terracing	13.4	2.09
Rain & AWC	BAU	23.4	1.85
	Terracing	13.6	2.09
Slope & AWC	BAU	26.0	1.79
	Terracing	14.3	2.07

**Figure S1.** Curve number map of the West Bank [37].

