

SUPPLEMENTARY FIGURES

Causes and trends water scarcity in food production

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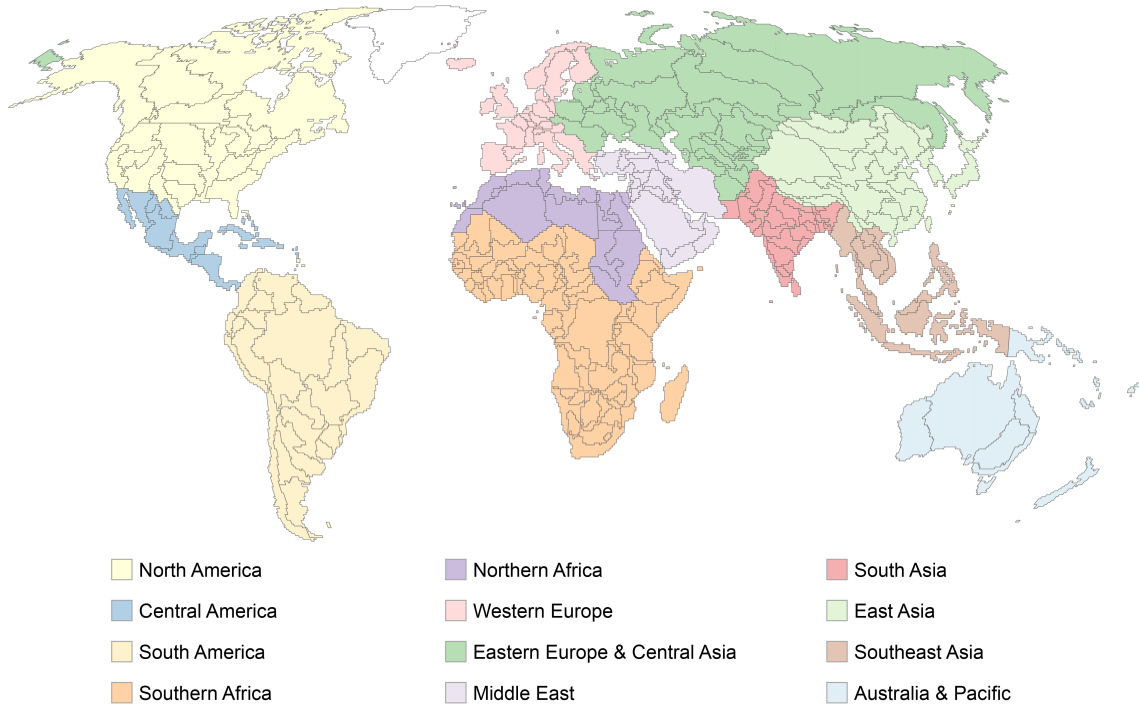


Figure S1. Food production units (FPUs) and their regions.

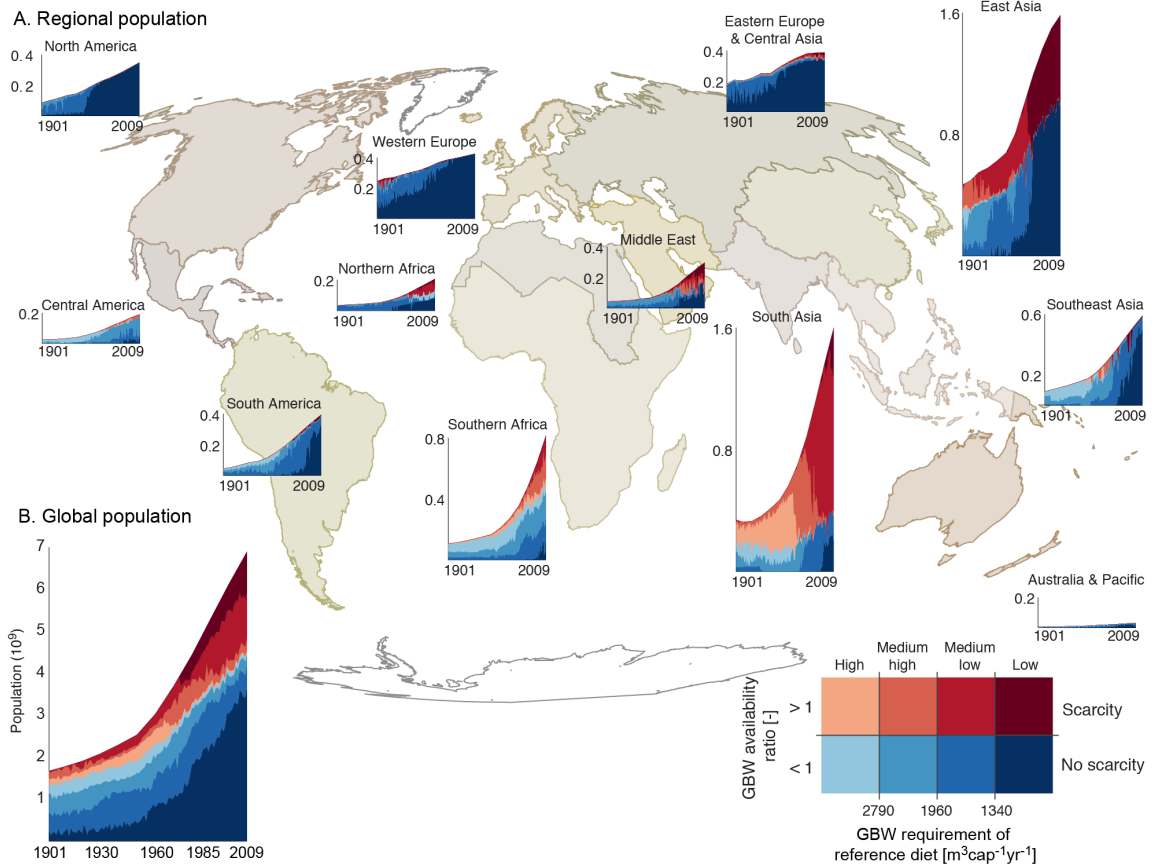


Figure S2. Population in four categories based on GBW requirements and scarcity by regions (A) and globally (B) in the AGROPRAC scenario. Classification for GBW requirement is based on the 2.5%, 25%, 50%, 75% and 97.5% quantiles of the data spanning 1901–2009.

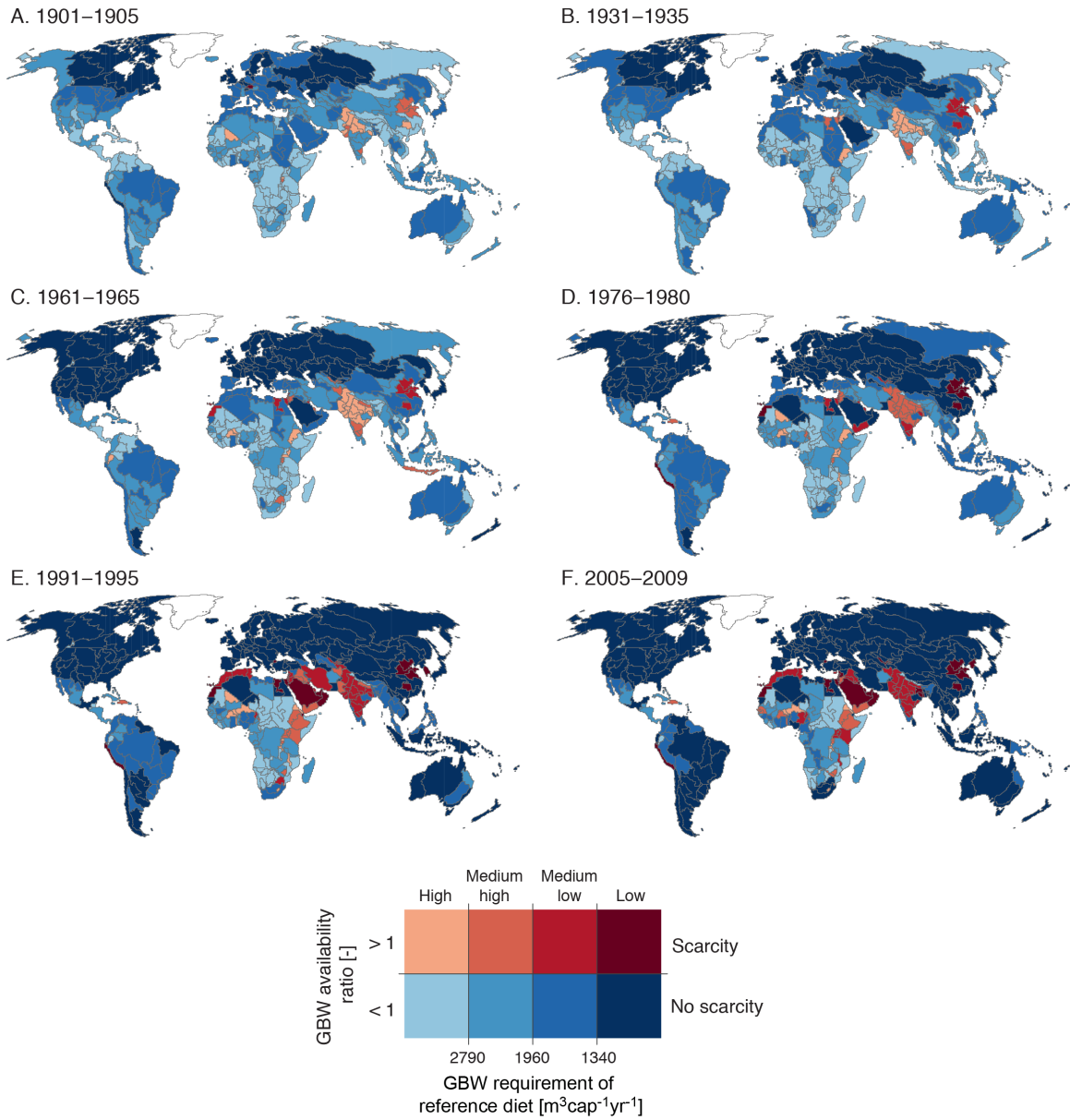


Figure S3. FPU in four categories based on GBW requirements and scarcity. GBW requirements of $>1300 \text{ m}^3\text{cap}^{-1}\text{yr}^{-1}$ are considered high and those $<1300 \text{ m}^3\text{cap}^{-1}\text{yr}^{-1}$ are considered low.

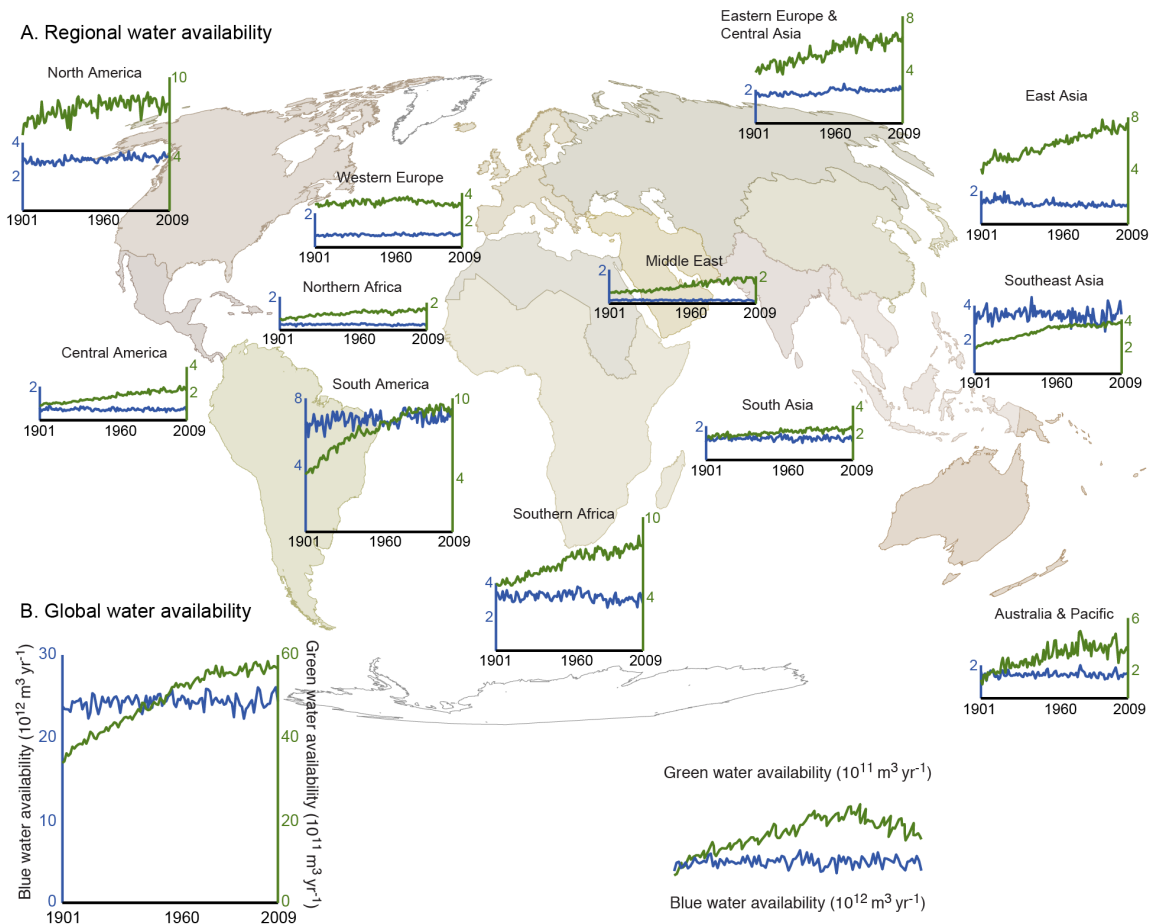


Figure S4. Regional (A) and global (B) total blue and green water availability.

A. Regional GBW requirement

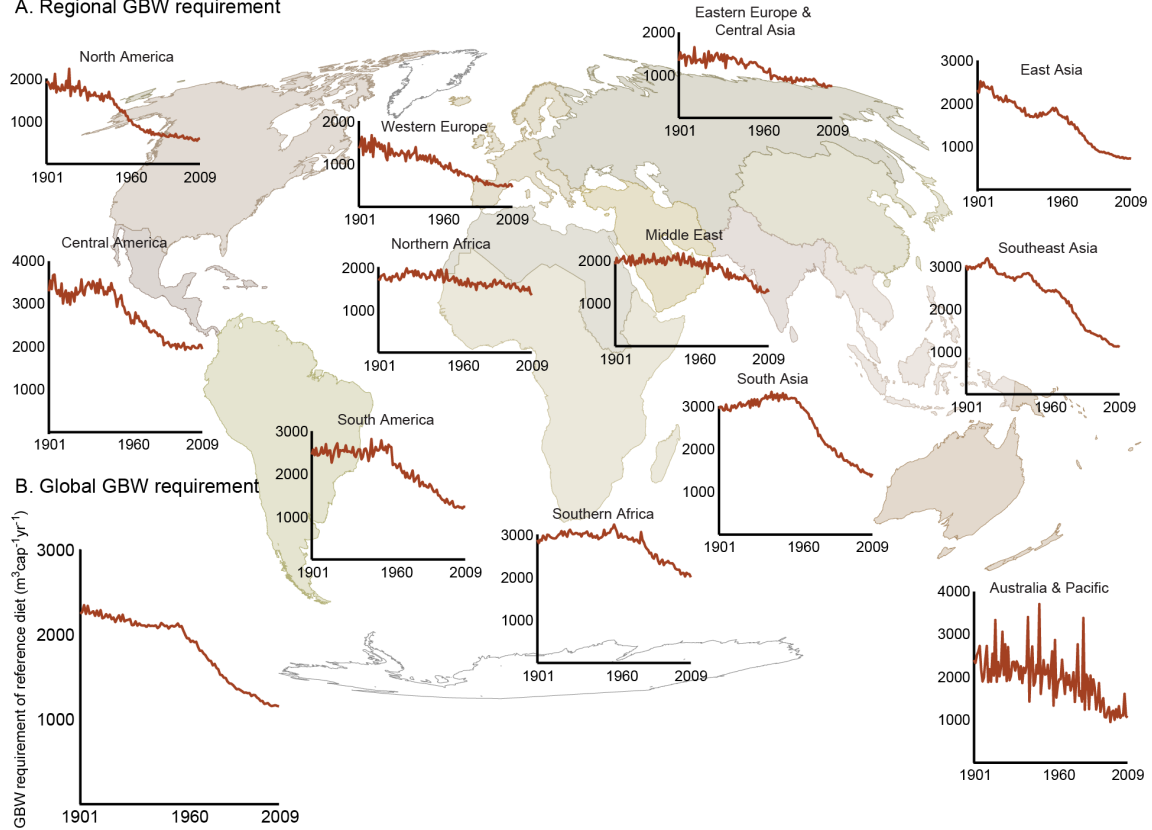


Figure S5. Regional (A) and global (B) requirement of the reference diet (per cap).

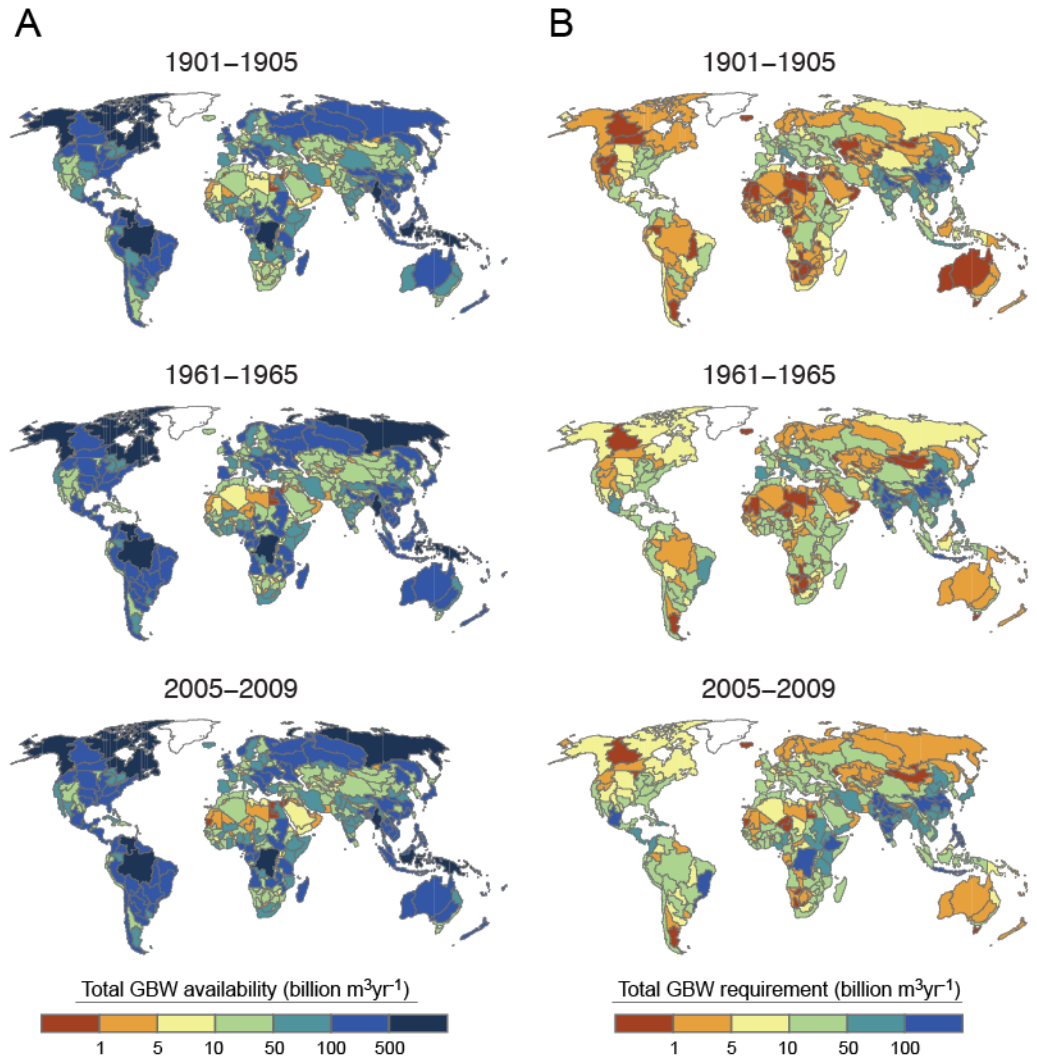
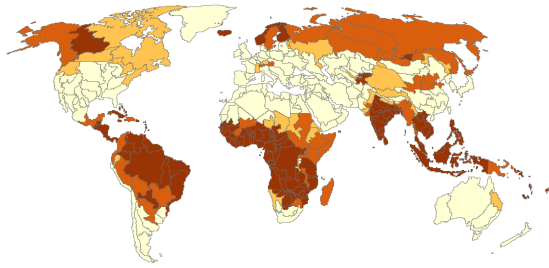
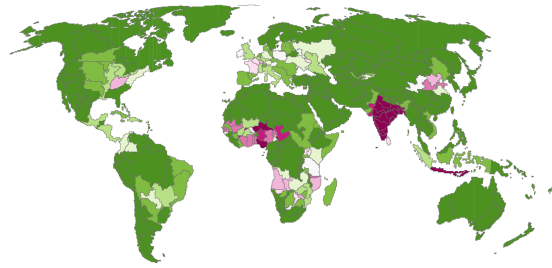


Figure S6. Total GBW availability (A) and GBW requirement of producing the reference diet for all inhabitants of an FPU (B) mapped at three time steps. To minimise the impact of extreme years, numbers used are five-year averages.

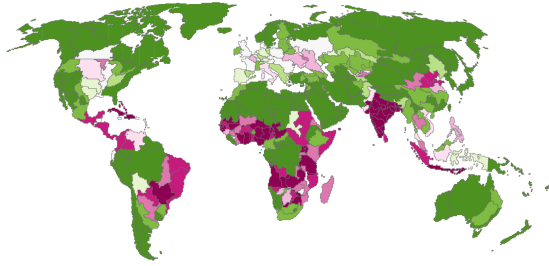
A. Thresholds for sustainable agricultural land use



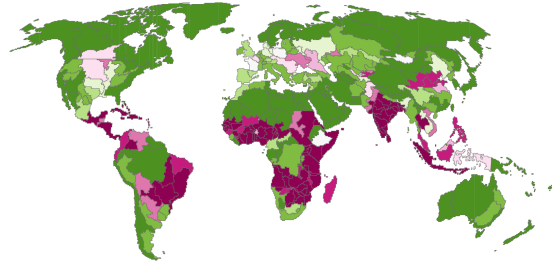
B. 1901–1905



C. 1961–1965



D. 2004–2009



0% 20% 30% 40% 50%
Sustainable land use [% of land area]

Below the limit Over the limit
← →
-50% -25% -15% -5% +5% +15% +25% +50% +100%
Agricultural land use

Figure S7. Thresholds for sustainable agricultural land use (A) and actual (modelled) agricultural land use as % of land available for agriculture in each FPU (B–D) (see Methods in the main text for details).