



## Supplement of

## Global-scale drought risk assessment for agricultural systems

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## **Supplementary Material**



Figure S1. Social-environmental susceptibility and lack of coping capacity by country

Indicator	CODE					
Social susceptibility (SOC_SUS)						
Prevalence of conflict/insecurity	C_STA1					
Dependency ratio (Population ages 15-64 (% of total population))	E_DEP					
Unemployment, total (% of total labor force) (national estimate)	E_EMP					
Share of GDP from agr., forestry and fishing in US\$ (%)	E_INC					
GINI index	E_INQ					
Proportion of population living below the national poverty line (%)	E_POV					
Insecticides and pesticides used (ton/ha)	F_INPE					
Electricity production from hydroelectric sources (% of total)	P_ELE					
Population using at least basic sanitation services (%)	P_W&S2					
Access to improved water sources (% of total population with access)	P_W&S1					
DALYs (Disability-Adjusted Life Years)(DALYs per 100,000, Rate)	S_DISP					
Literacy rate, adult total (% of people ages 15 and above)	S_EDU					
Gender Inequality Index	S_GNDR					
Healthy life expectancy (HALE) at birth (years)	S_LEB					
Prevalence of undernourishment (% of population)	S_NUT					

Table S2. Final indicators for the vulnerability assessment and their respective code

Rural population (% of total population)	S_RUR					
Ecological susceptibility (ECO_SUS)						
Average land degradation in GLASOD erosion degree	E_DEGR					
Terrestrial and marine protected areas (% of total territorial area)	E_PROA					
Average soil erosion	E_SOIL2					
Fertilizer consumption (kilograms per hectare of arable land)	F_FERT					
Lack of coping capacity (COP)						
Saved any money in the past year (% age 15+)	E_SAV					
Corruption Perception Index (CPI)	G_CORP					
Government Effectiveness: Percentile Rank	G_REP					
Total renewable water resources per capita (m3/inhab/year)	P_RW					
Travel time to cities $\leq 30 \min$ (population) (%)	P_TRNS					
Total dam storage capacity per capita. Unit: m3/inhab	P_WAT					



**Figure S3.** Weighted normalized vulnerability indicators scores for the five countries with highest drought risk for combined agricultural systems (irrigated and rain-fed)



**Figure S4.** Weighted normalized vulnerability indicators scores for the five countries with lowest drought risk for combined agricultural systems (irrigated and rain-fed).

**Table S5.** Number of grid cells and harvested area of rainfed crops for the thresholds 10%, 20% and 50% for the deviation of the annual ratio AET/PET from the long-term median of the ratio AET/PET in different percentile classes. A percentile of 0.01 means that such an event can be expected every 100 years, a percentile of 0.5 means that such an event can be expected every 2 years.

	10		20		50	
Percentile	Grid cells	Harv. Area (%)	Grid cells	Harv. Area (%)	Grid cells	Harv. Area (%)
0	3997	7.15	11877	28.44	32265	91.80
< 0.01	4611	8.47	13137	32.12	33280	94.14
< 0.02	5450	10.85	14823	37.23	34172	96.26
< 0.05	7730	17.17	19082	50.89	35639	98.94
<0.10	11115	26.62	24384	69.66	36495	99.76
<0.20	19119	51.09	31656	91.09	37095	99.96
<0.30	28461	81.17	35785	98.87	37241	100.00
<0.50	37195	99.96	37264	100.00	37265	100.00