Hydrology and
Earth System
Sciences

Open Access

Discussions

Supplement of

Estimating drought risk across Europe from reported drought impacts, hazard indicators and vulnerability factors

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Supplements

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Table S1, European countries with insufficient vulnerability data

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Albania
Armenia
Azerbaijan
Bosnia and Herzegovina
Belarus
Georgia
Moldavia
Montenegro
Macedonia
Serbia
Russia
Slovenia
Turkey

Table S 2 Results of binary logistic model performance (step one), drought indices used in EDO (2001-2014), I: Maritime Europe, II: Southeastern Europe, III: Northeastern Europe, IV: Western-Mediterranean; white coloring + no '*': no robust model identified, light green coloring + '*': 'poor' model performance, green coloring + '**': 'good' model performance, dark green coloring + '***': 'excellent' model performance

Impact category	A&L				Fo			A&F			E&I			WT			T&R			PWS				WQ			FE			TE	SS			Wf				AQ	H&P			Co		
	I	II	III	IV	I	II	III	I	II	IV	I	II	IV	I	II	IV	I	II	IV	I	II	III	IV	I	II	IV	I	II	IV		I	II	IV	I	II	III	IV	I	I	IV	I	II	IV

fAPAR

Row				
fAPAR Jan				
fAPAR Feb				
fAPAR Mar				
fAPAR Apr				
fAPAR May				
fAPAR Jun				
fAPAR Jul				
fAPAR Aug				
fAPAR Sep				
fAPAR Oct				
fAPAR Nov				
fAPAR Dec				
fAPAR AVG				

pF

Row
pF Jan
pF Feb
pF Mar
pF Apr
pF May
pF Jun
pF Jul
pF Aug
pF Sep
pF Oct
pF Nov
pF Dec
pF AVG

CDI

Row
CDI Jan
CDI Feb
CDI Mar
CDI Apr
CDI May
CDI Jun
CDI Jul
CDI Aug
CDI Sep
CDI Oct
CDI Nov
CDI Dec
CDI annual MAX

Table S 3 Results of binary logistic model performance (step one), SPEI 1, 3, 6, 12, 24; (1970-2012), I: Maritime Europe, II: Southeastern Europe, III: Northeastern Europe, IV: Western-Mediterranean, white coloring + no '*': no robust model identified, light green coloring + '*': 'poor' model performance, green coloring + '**': 'good' model performance, dark green coloring + '***': 'excellent' model performance

Impact category	A&L				Fo				A&F				E&I				WT				T&R				PWS				WQ				FE				TE		SS				Wf				AQ		H&P		Co		
	I	II	III	IV	I	II	III	IV	I	II		IV	I	II		IV	I	II		IV	I	II		IV	I	II	III	IV	I	II	IV	I	II	IV	I	I	II		IV	I	II	III	IV	I	I	IV	I	II	IV

SPEI-1: SPEI-01 Jan, SPEI-01 Feb, SPEI-01 Mar, SPEI-01 Apr, SPEI-01 May, SPEI-01 Jun, SPEI-01 Jul, SPEI-01 Aug, SPEI-01 Sep, SPEI-01 Oct, SPEI-01 Nov, SPEI-01 Dec

SPEI-3: SPEI-03 Jan, SPEI-03 Feb, SPEI-03 Mar, SPEI-03 Apr, SPEI-03 May, SPEI-03 Jun, SPEI-03 Jul, SPEI-03 Aug, SPEI-03 Sep, SPEI-03 Oct, SPEI-03 Nov, SPEI-03 Dec

SPEI-6: SPEI-06 Jan, SPEI-06 Feb, SPEI-06 Mar, SPEI-06 Apr, SPEI-06 May, SPEI-06 Jun, SPEI-06 Jul, SPEI-06 Aug, SPEI-06 Sep, SPEI-06 Oct, SPEI-06 Nov, SPEI-06 Dec

SPEI-12: SPEI-12 Jan, SPEI-12 Feb, SPEI-12 Mar, SPEI-12 Apr, SPEI-12 May, SPEI-12 Jun, SPEI-12 Jul, SPEI-12 Aug, SPEI-12 Sep, SPEI-12 Oct, SPEI-12 Nov, SPEI-12 Dec

SPEI-24: SPEI-24 Jan, SPEI-24 Feb, SPEI-24 Mar, SPEI-24 Apr, SPEI-24 May, SPEI-24 Jun, SPEI-24 Jul, SPEI-24 Aug, SPEI-24 Sep, SPEI-24 Oct, SPEI-24 Nov, SPEI-24 Dec

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23 Table S 4 Results of binary logistic model performance (step one), vulnerability factors, I:

24 Maritime Europe, II: Southeastern Europe, III: Northeastern Europe, IV: Western-

25 Mediterranean; A. = Area of, dens. = density, EC= European Commission, GDP = Gross

26 Domestic Product, GW = Groundwater, norm. = normalised, NC = NUTS-combo region, N2 =

27 NUTS-2, SR = Socioeconomic Relevance, WR= Water Use Relevance

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Impact category	A&L				Fo				A&F				E&I				WT				T&R				PWS				WQ				FE				TE	SS				Wf				AQ	H&P			Co		
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	I	II	IV	I	II	III	IV	I	I	IV	I	II	IV

Adaptive capacity

- Corruption
- Drought awar., norm.
- Drought awareness
- Drought awareness 2
- Drought management tools
- Drought recovery cap., norm.
- Drought recovery capacity
- Education exp. & skilled people
- Innovation capacity
- Law enforc. & corrupt., norm.
- Law enforcement
- Law enforcement & corruption
- Public participation
- Public participation, norm.
- River Basin Management Plans
- Water related Participation
- Water related Participation EC

Sensitivity

- A. agriculture
- A. agriculture, ratio of NC
- A. artificial surfaces
- A. artificial surfaces, ratio of NC
- A. forest
- A. forest, ratio of NC
- A. inland water bodies
- A. inland water bodies, ratio of NC
- A. lakes within region
- A. non irrigated agri.
- A. non irrigated agri, ratio of NC
- A. perm. irrigated. agri.
- A. semi natural areas
- A. semi natural areas, ratio of NC
- A. wetlands
- A. wetlands, ratio of NC
- Aquatic ecosystem status
- Arable land
- A. NUTS-combo region
- Biodiversity, A. protect.
- Dams + GW resources
- Dams + GW resources, norm.
- Dams capacity 2
- Dams resources, norm.
- Economic resources & equity
- Economic wealth
- Education
- Environmental taxes
- GDP by country
- Groundwater resources (GW)
- Groundwater resources, norm.
- Human health & public safety
- Population density N2
- Population dens. & age, norm.
- Population dens. & age.
- Population dens. by country
- PWS by N2
- PWS connection by N2
- Soil type
- SR Agri., norm.
- SR agriculture
- SR indus
- SR industry, norm.
- SR services sector
- SR services sector, norm.
- Tourist beds by country
- Tourist beds by N2
- Water balance
- Water body status
- Water exploitation index
- Water exploitation index, norm.
- Water resources development
- Water use
- Water use Agri
- Water use Indus
- WR agri sector
- WR agri., norm.
- WR industry sector
- WR industry sector, norm.
- WR services sector
- WR services sector 2
- WR services sector, norm.

Combined factors

- SENSITIVITY
- ADAPTIVE CAPACITY
- VULNERABILITY

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