

Asia | Meteorological drought 2010-2019

- The time series of 2010-2019 of the drought severity and frequency was used to represent the drought and its trends.
- Considering only the decade 2010-2019 and combining severity and frequency, it is possible to identify "hotspots" affected more severely and more frequently by drought: Sri Lanka, Nepal, Mongolia, some countries in southeast Asia (Vietnam, Myanmar and Bangladesh) and Armenia in the Caucasus.
- For the same period 2010-2019, when compared to 1950-2009, increased drought severity was experienced particularly by the Arabian Peninsula (where Jordan reports the largest increase) and the neighbouring Syria, Lebanon and Israel.
- Increased drought frequency (2010-2019, compared to 1950-2009) was experienced in Sri Lanka (the largest increase), and Nepal, as well as across East Asia and Southeast Asia.

¹Severity represents the severity of drought events per decade (per country), and uses the Standardized Precipitation-Evapotranspiration Index at the 3-months accumulation period (SPEI-3). The difference between SPEI-3 values and a threshold is computed for all events, and the results are summed overall to obtain the severity.

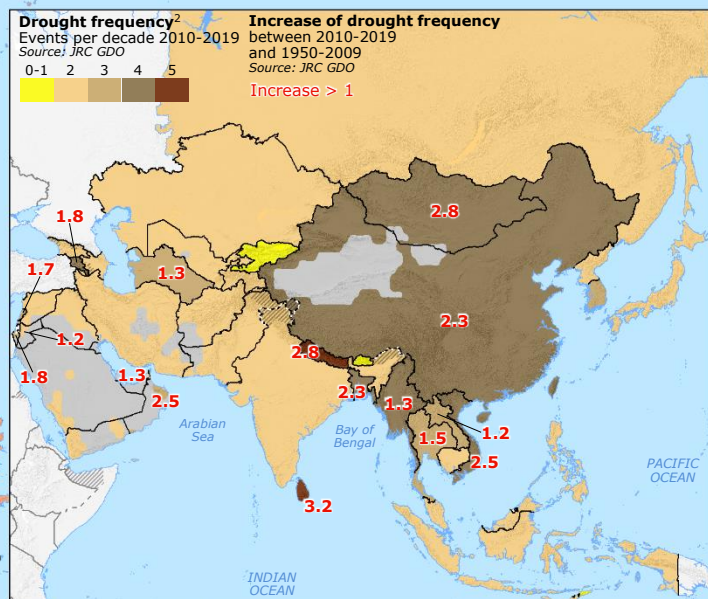
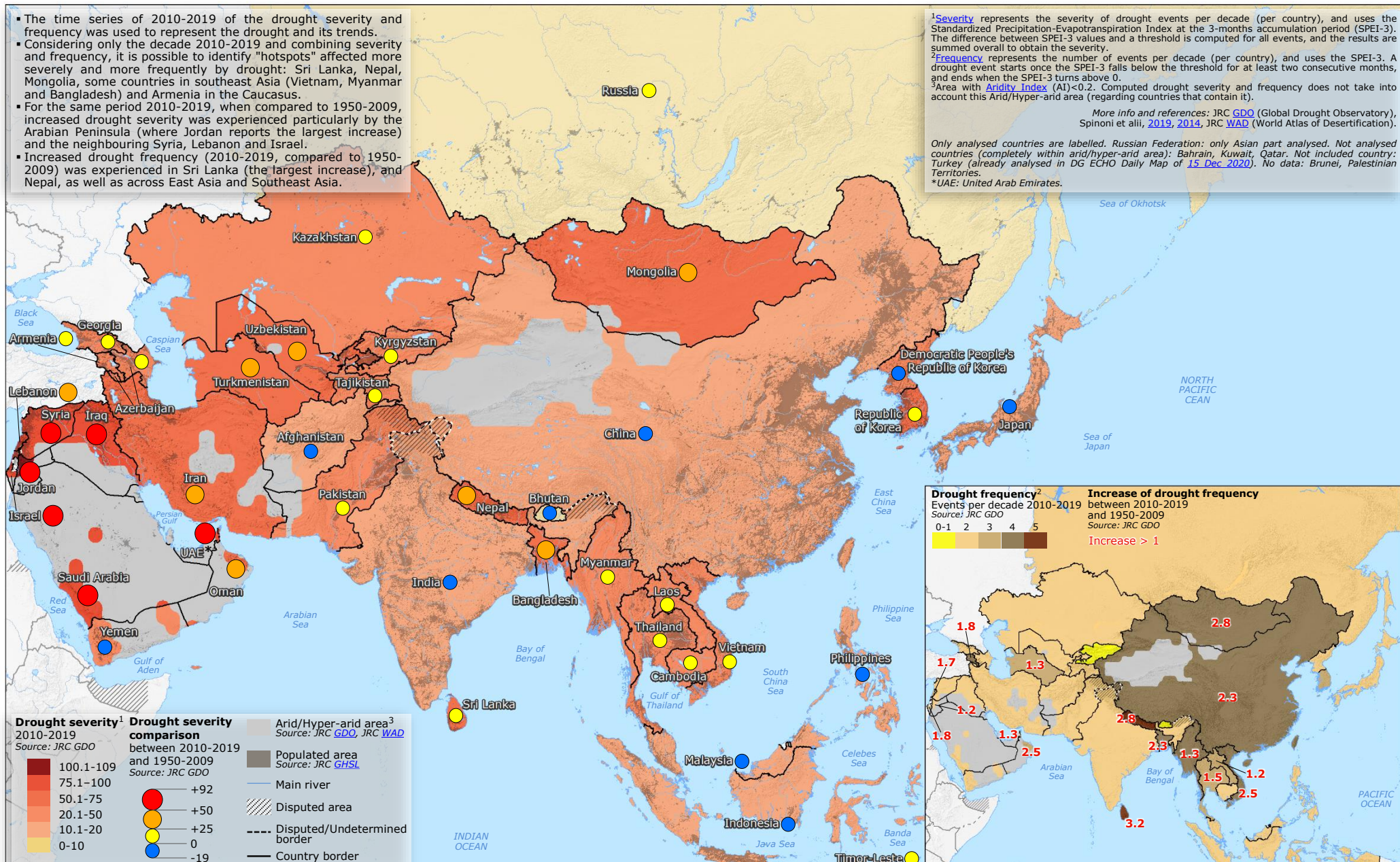
²Frequency represents the number of events per decade (per country), and uses the SPEI-3. A drought event starts once the SPEI-3 falls below the threshold for at least two consecutive months, and ends when the SPEI-3 turns above 0.

³Area with Aridity Index (AI) < 0.2. Computed drought severity and frequency does not take into account this Arid/Hyper-arid area (regarding countries that contain it).

More info and references: JRC GDO (Global Drought Observatory), Spinoni et alii, 2019, 2014, JRC WAD (World Atlas of Desertification).

Only analysed countries are labelled. Russian Federation: only Asian part analysed. Not analysed countries (completely within arid/hyper-arid area): Bahrain, Kuwait, Qatar. Not included country: Turkey (already analysed in DG ECHO Daily Map of 15 Dec 2020). No data: Brunei, Palestinian Territories.

*UAE: United Arab Emirates.



Drought severity¹ 2010-2019
Source: JRC GDO

100.1-109
75.1-100
50.1-75
20.1-50
10.1-20
0-10

Drought severity comparison between 2010-2019 and 1950-2009
Source: JRC GDO

Red circle	+92
Orange circle	+50
Yellow circle	+25
Light yellow circle	0
Blue circle	-19

Arid/Hyper-arid area³
Source: JRC GDO, JRC WAD

Populated area
Source: JRC GHSL

Main river

Disputed area

Disputed/Undetermined border

Country border