Seasonal Outlook for winter 2022/2023 over Mongolia

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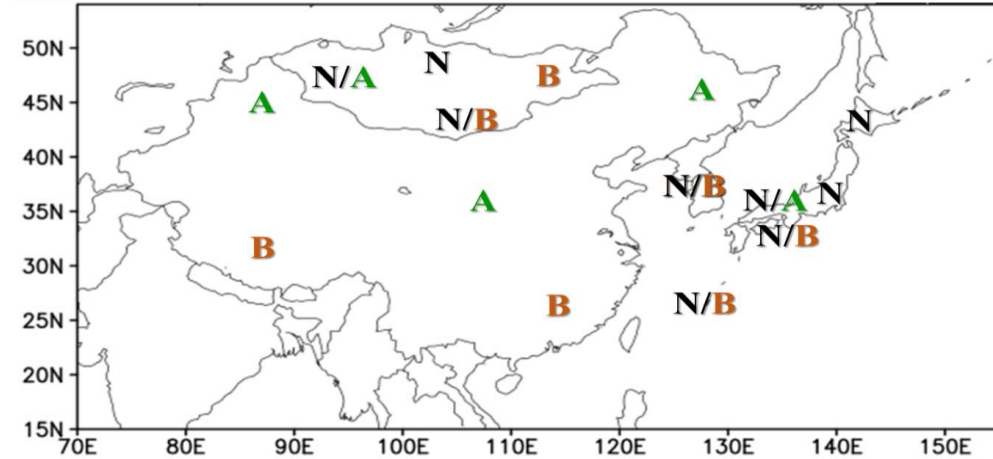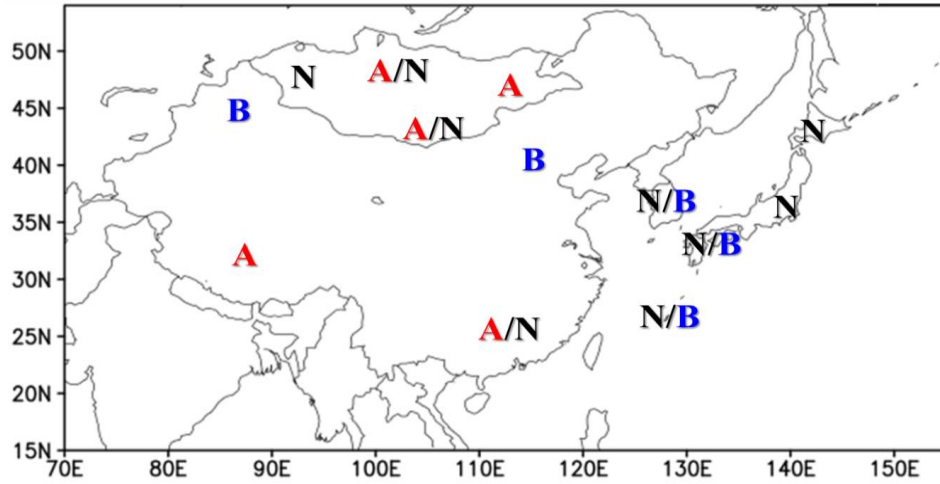*Information and Research Institute of Meteorology, Hydrology and Environment, NAMEM, MONGOLIA*

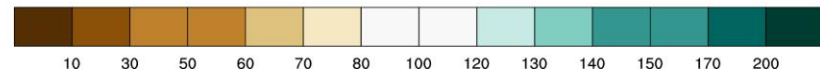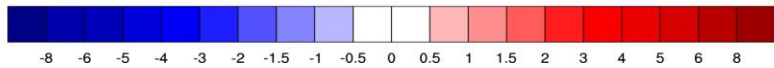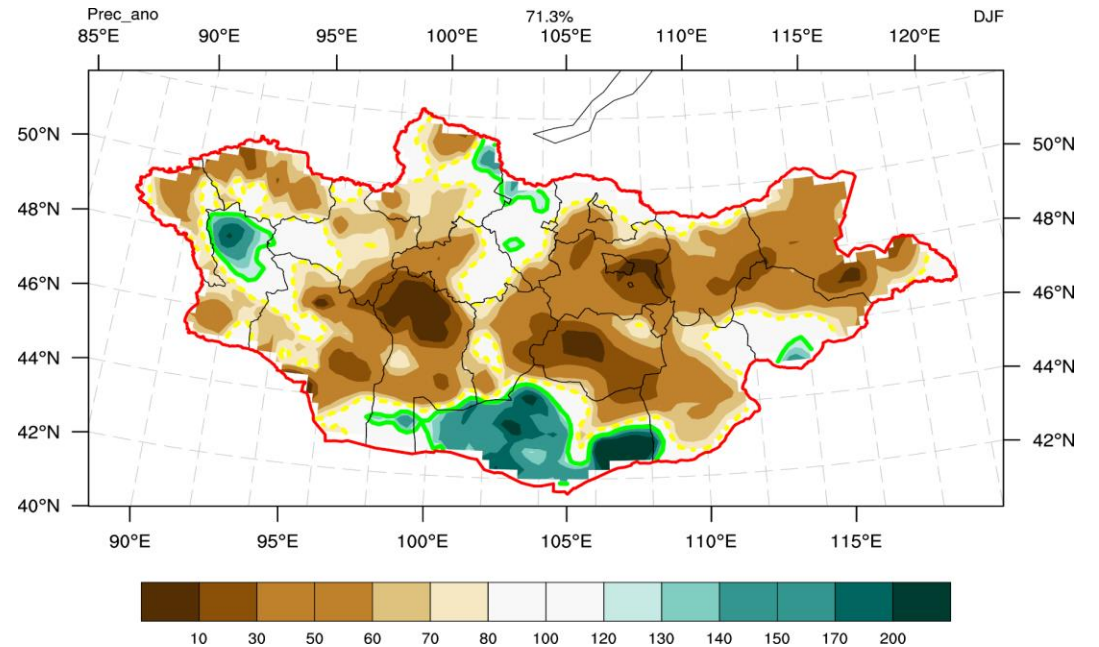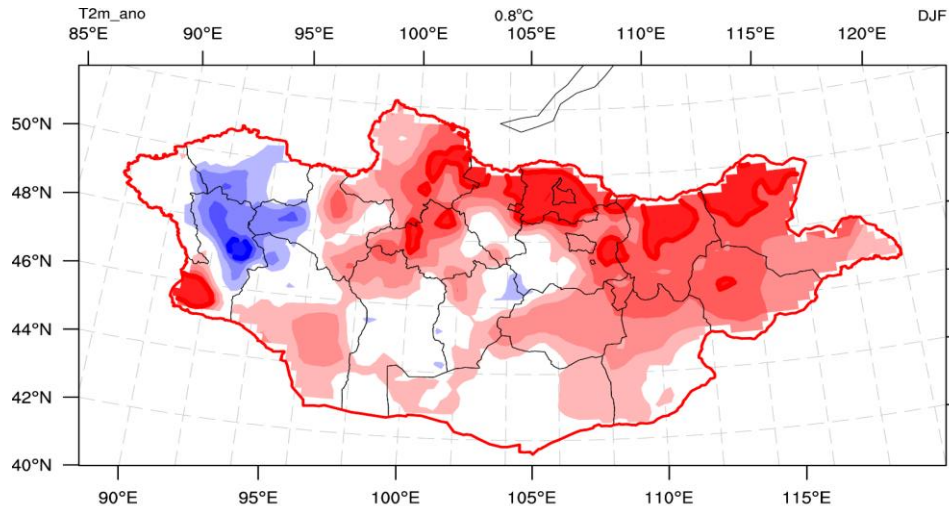10 November 2022

How was last winter forecast? (2021/22)

Temperature

Precipitation

Prediction

Observation

Used models

Data source: https://cds.climate.copernicus.eu/cdsapp#!/dataset/seasonal-postprocessed-pressure-levels?tab=form
https://ds.data.jma.go.jp/tcc/tcc/
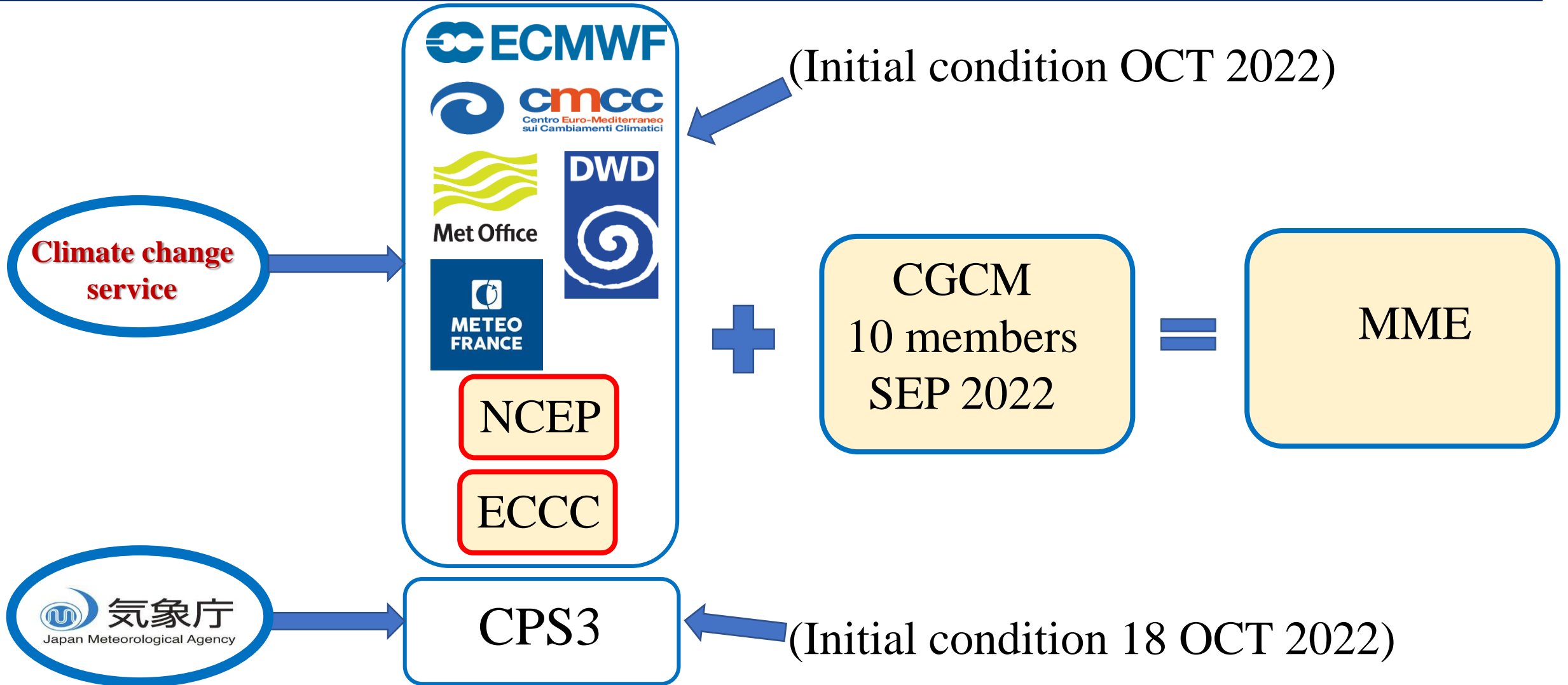
Multi-models ensemble system (MME)
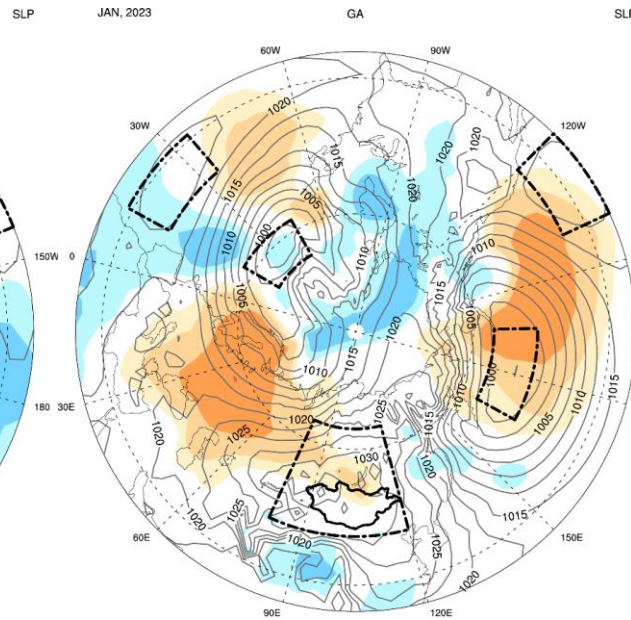
Results of MME for DJF, 2022/23

SLP
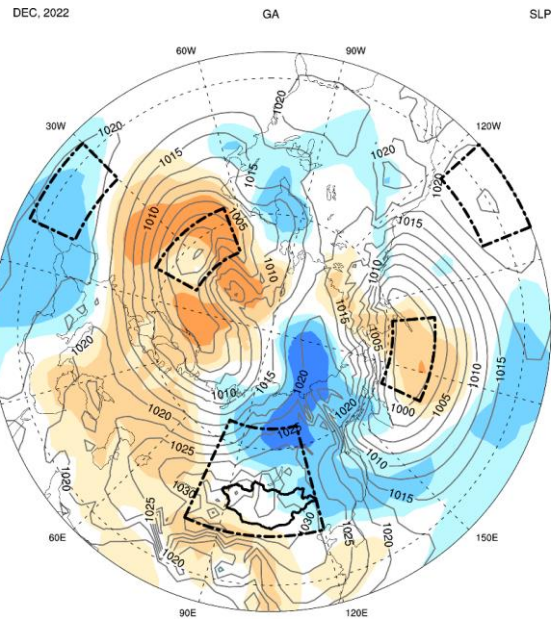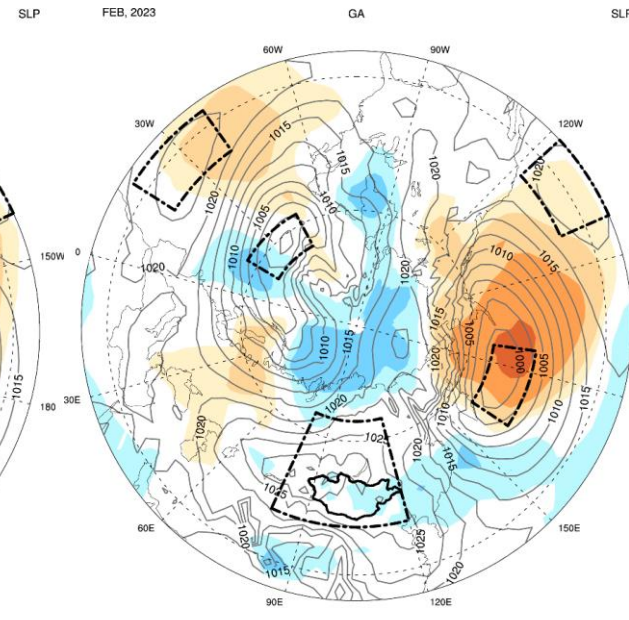
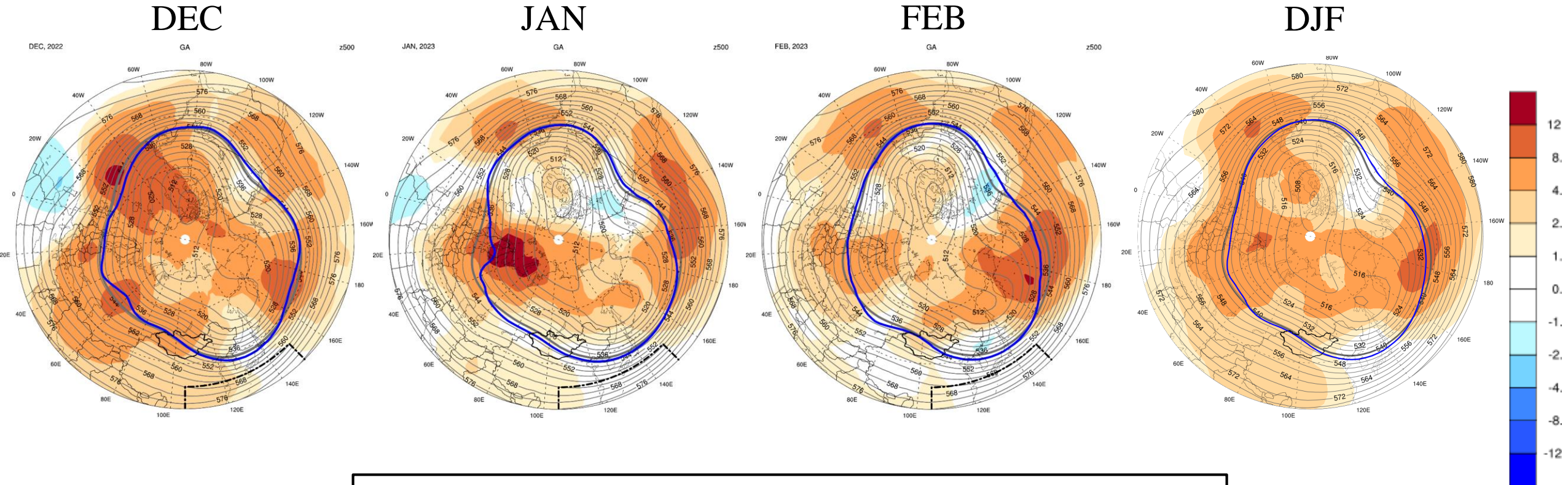DEC   JAN   FEB   DJF
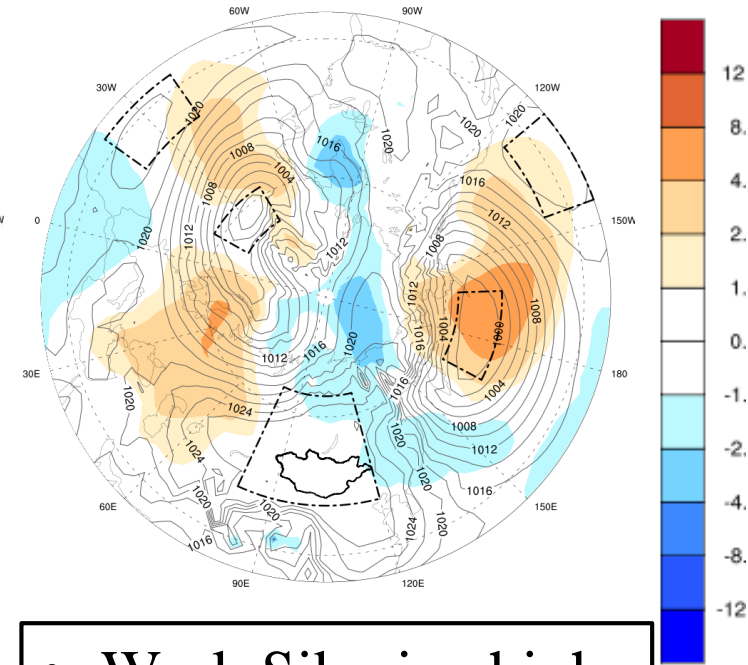
- Weak Siberian high
- Weak Aleutian low
- Islandic low

Results of MME for DJF, 2022/23

500 hPa GH

DEC | JAN | FEB | DJF

- Uralian ridge will be stronger than normal but position is western
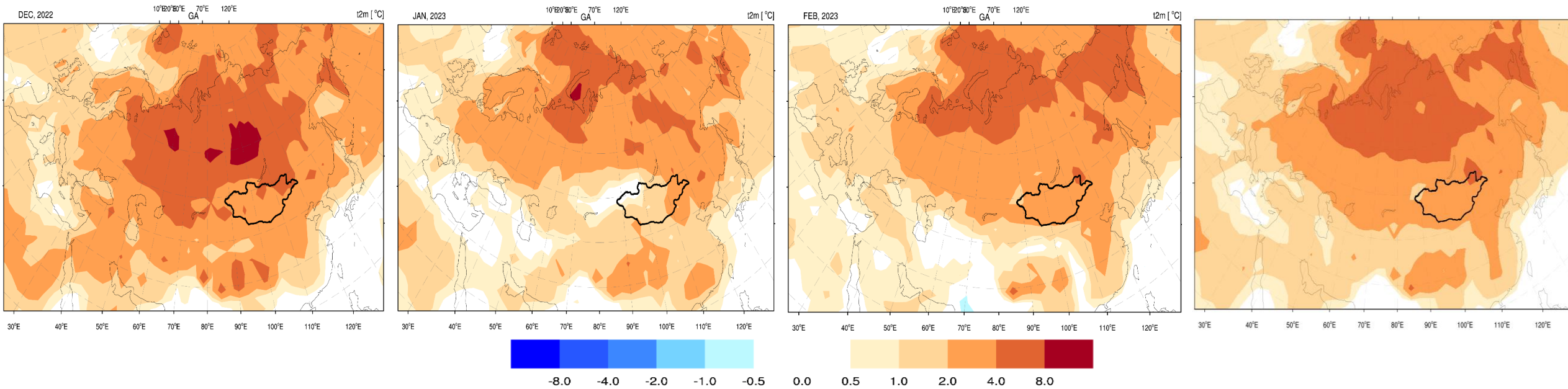- Weak East Asian trough

Results of MME for DJF, 2022/23

Surface temperature

- Above normal temperature over Siberian region.
- Near normal temperature over Mongolian

Results of MME for DJF, 2022/23

Precipitation
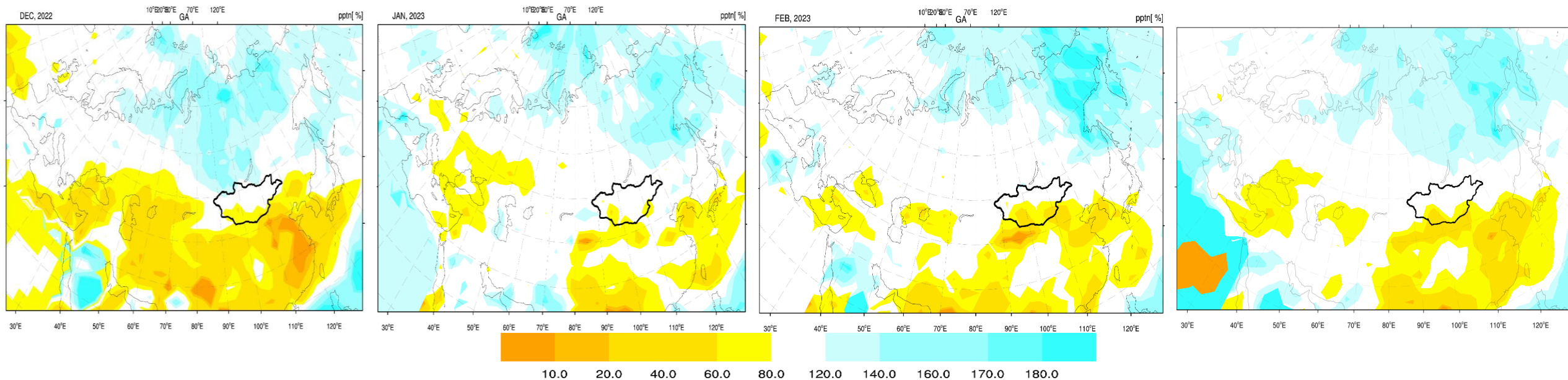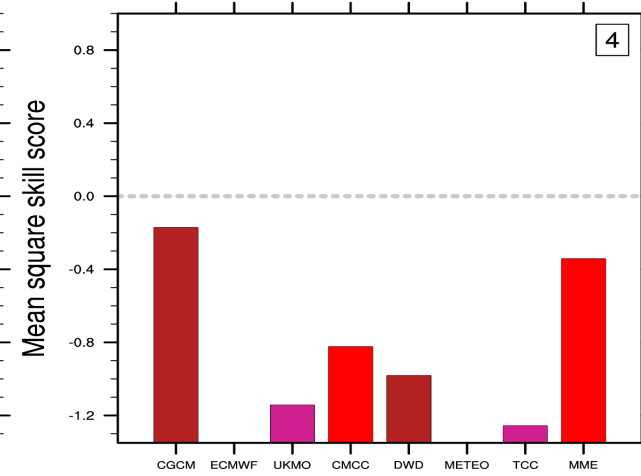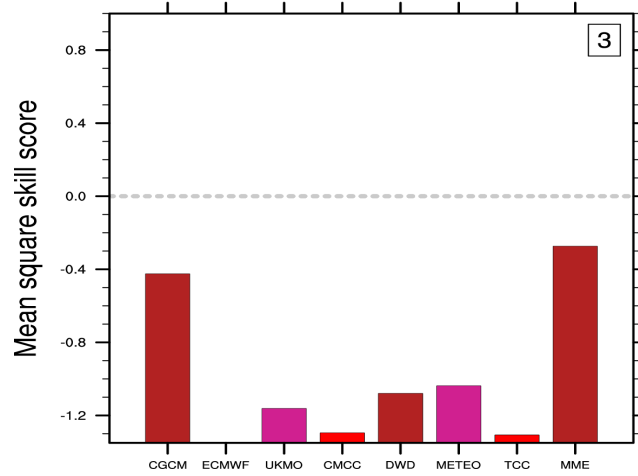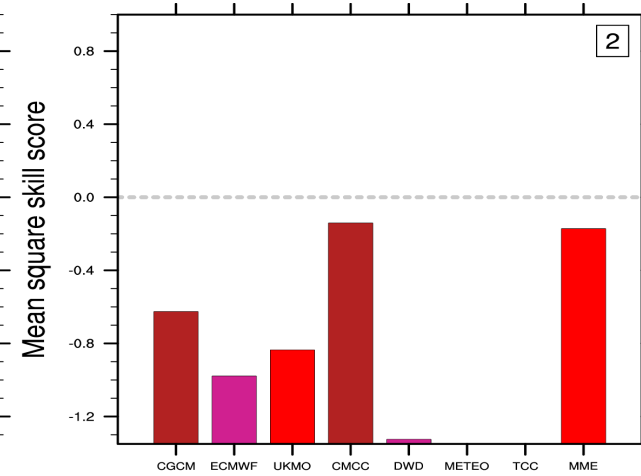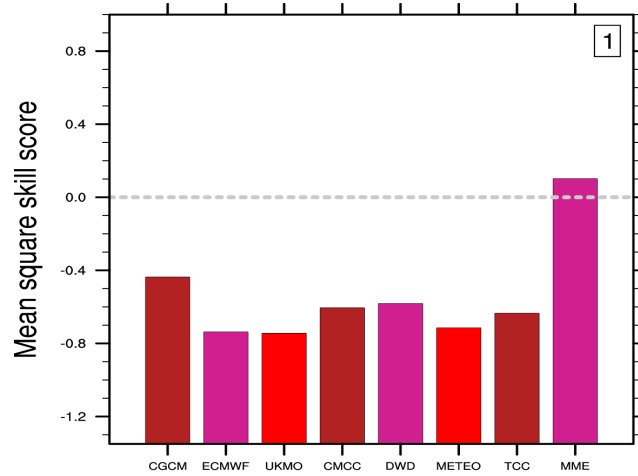
DEC JAN FEB DJF

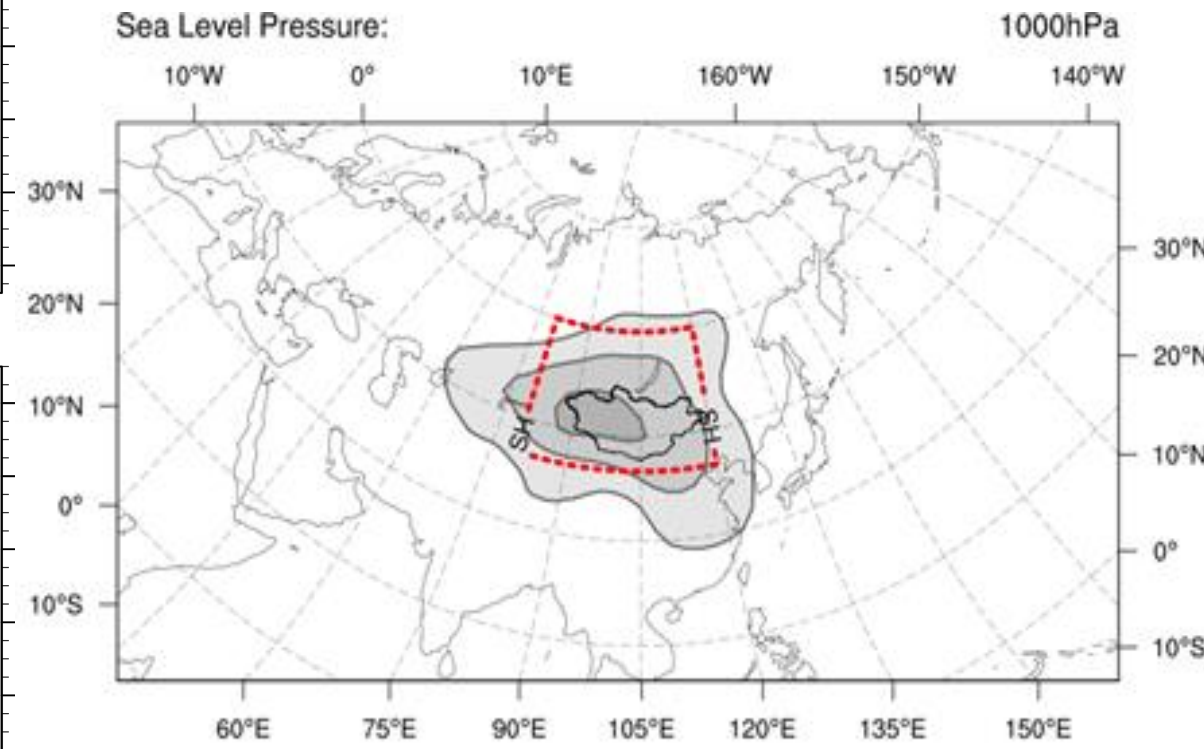
- Weak signal over Mongolia
- Below normal over southern part of Mongolia

Prediction for SHI

$$SH = Area\_ave \left(slp_{Lat=\,40\circ N-65\circ N}^{Lon=80\circ E-120\circ E} \right)$$

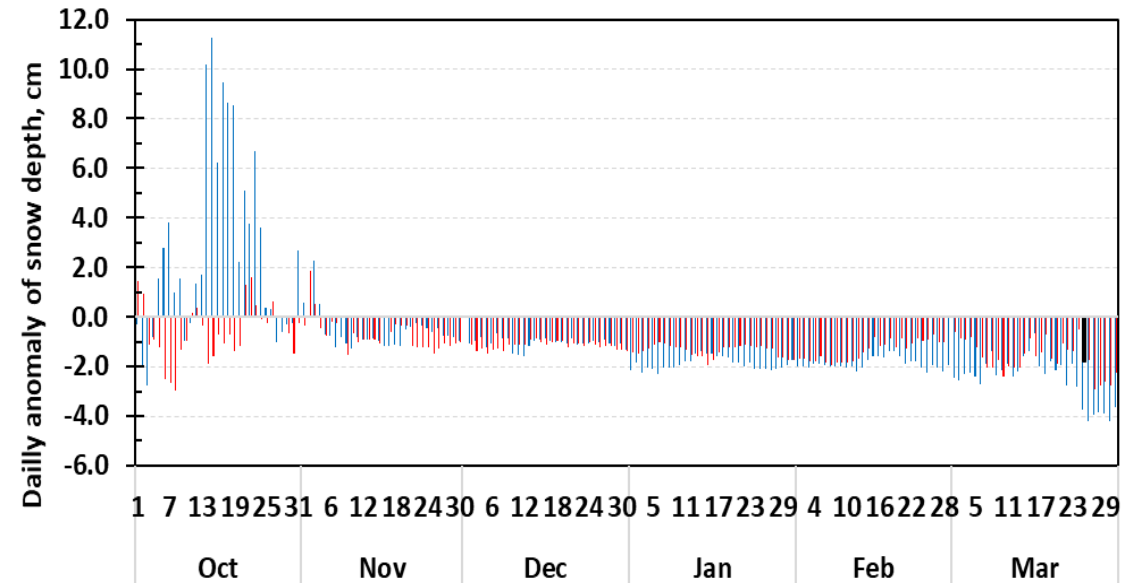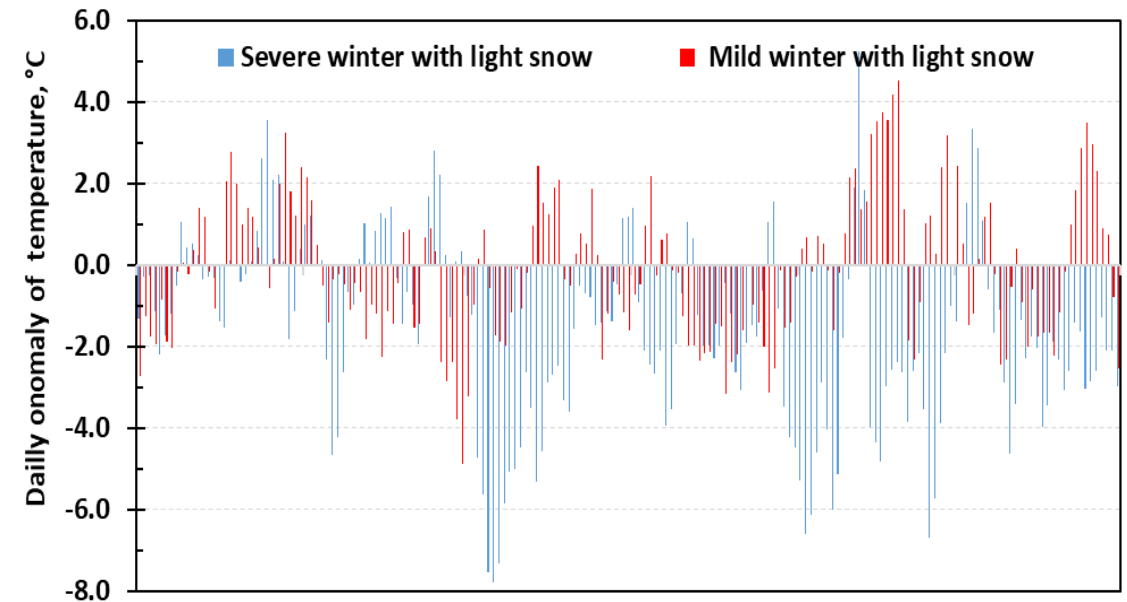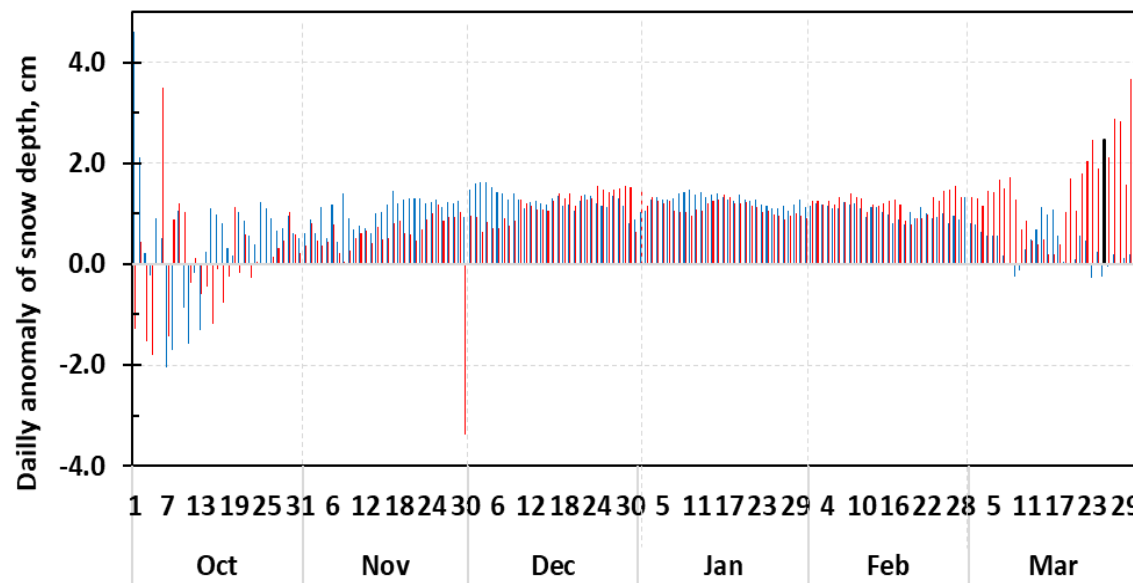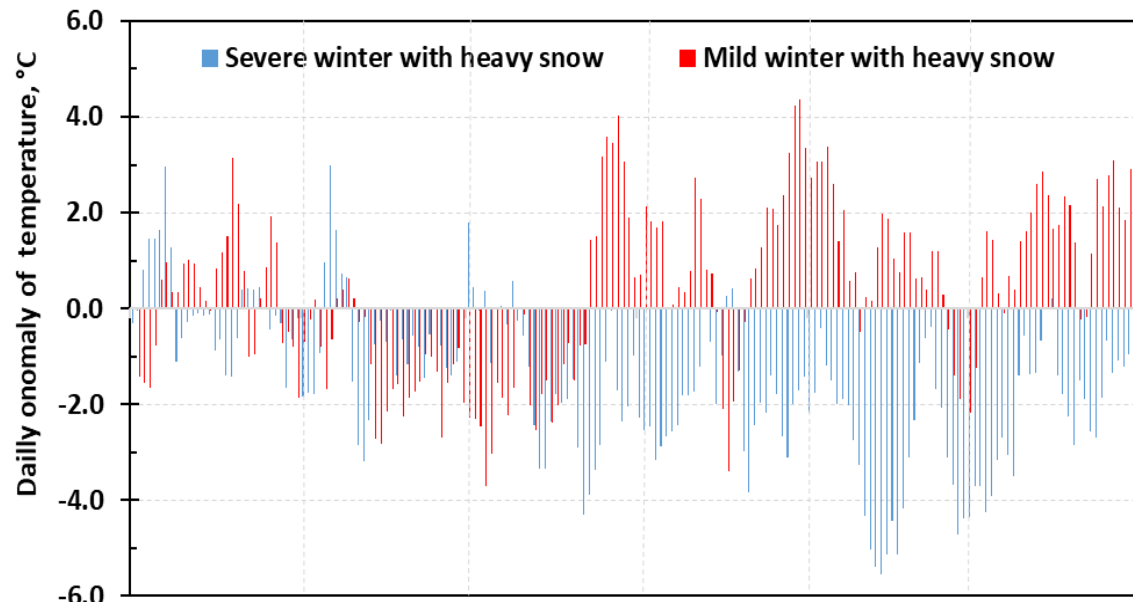Y. Gong and H.Ho (2002)

Prediction for SHI

Observed SLP of OCT 2022
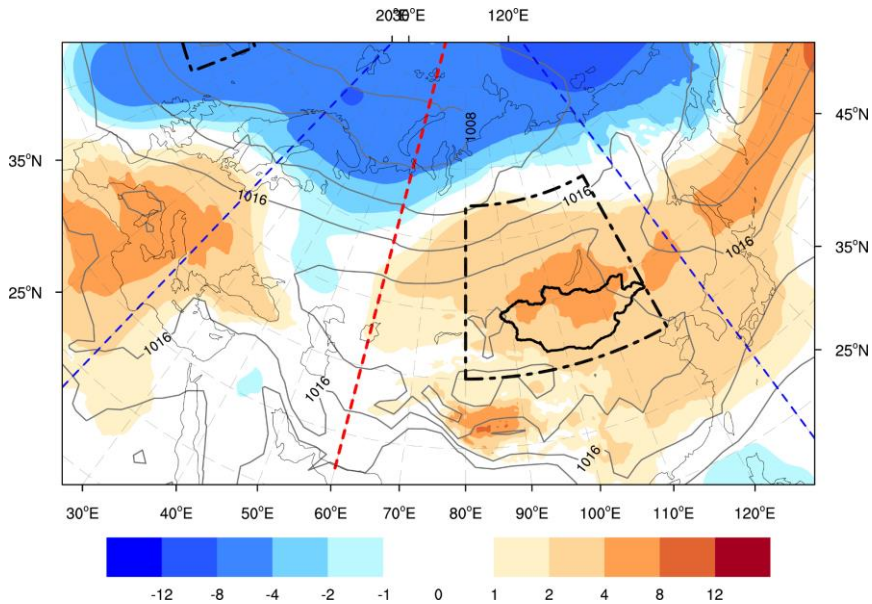
Predicted SLP of 2022 - 2023
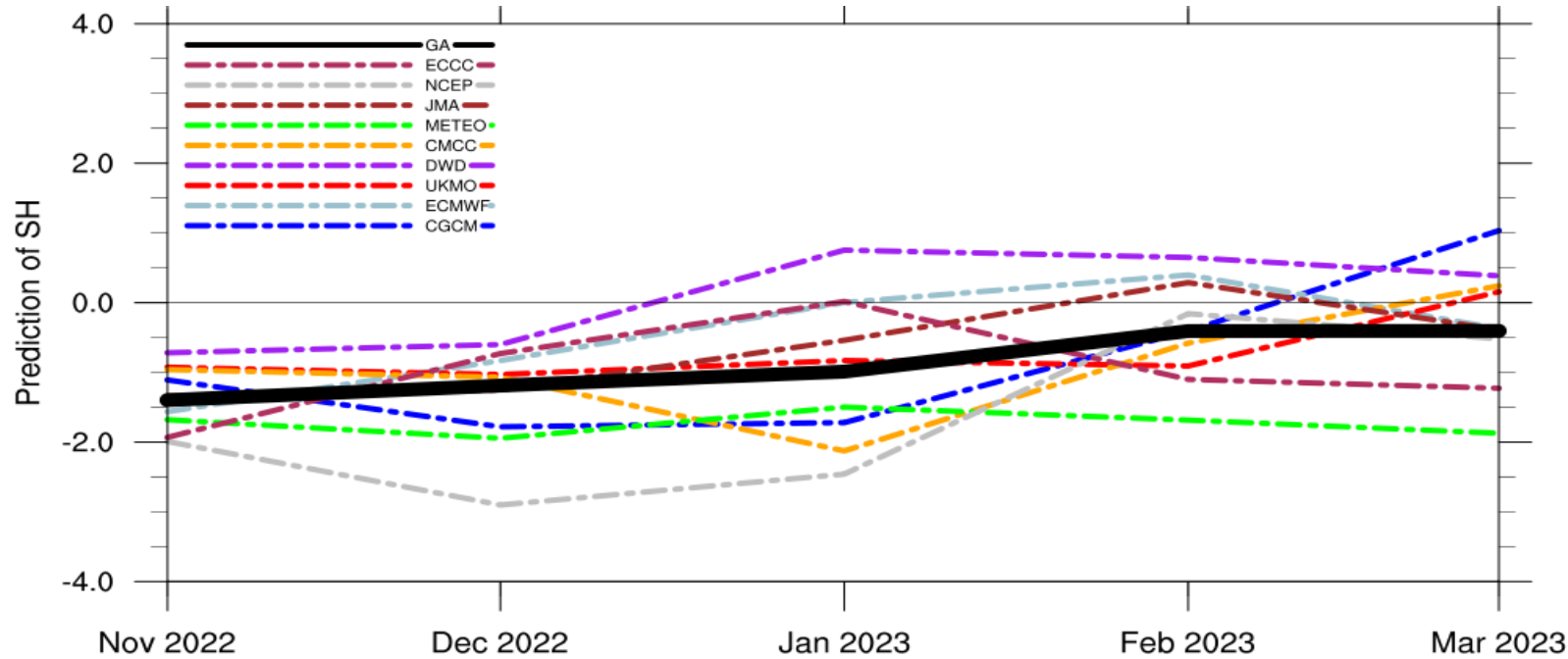
Relationship of snow depth and air temperature

Outlook for 2022/23 winter

	WEST	**CENTER**	**EAST**	**GOBI**
TEMPERATURE				
December	A	N	B/N	N
January	N	N	B/N	B/N
February	N/B	N/B	N/B	N/B
DJF	**N**	**A/N**	**A**	**A/N**
PRECIPITATION				
December	B/N	N	A	N
January	A	A/N	N	N
February	A	A/N	N	N
DJF	**N/A**	**N**		**N/B**

Thank you for your attention