

# Analysis of snow cover seasonality changes in SCERIN using MODIS snow cover products:

## First results

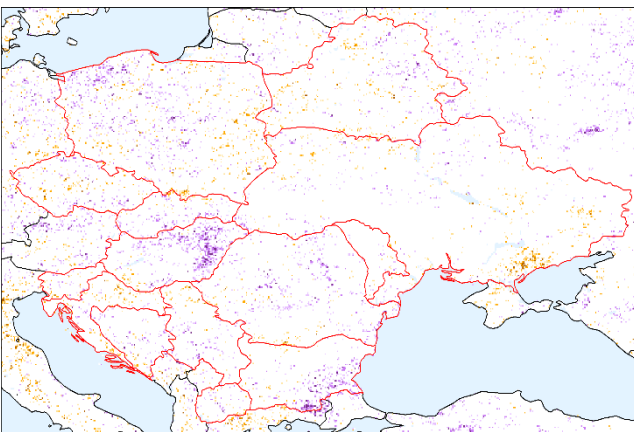
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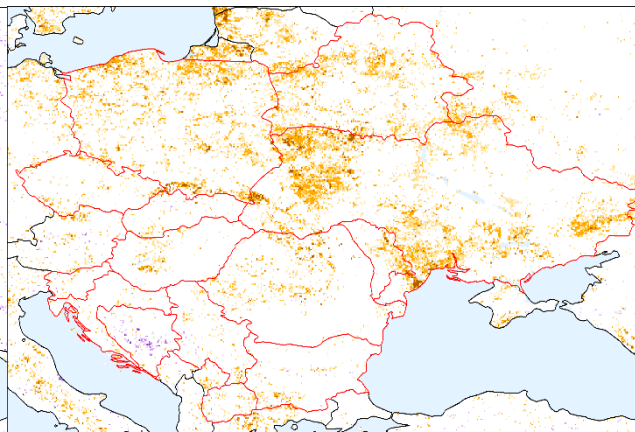
## ANALYSIS

- We explored 8-day NASA (MOD12C2 @5 km) snow products, using five metrics for 2000/01 through 2016/17 :
  - 1) First Date of Snow (FDoS); 2) Last Date of Snow (LDoS); 3) Snow Covered Dates (SCD); 4) Duration of Snow Season (DoSS); 5) Ratio of SCD and DoSS (SCD/DoSS)
- To evaluate the change in snow season metrics, we applied the non-parametric Mann-Kendall trend test and Theil-Sen linear trend estimator.
- We examined the 14 countries to evaluate the area of predominant change (significant trend) in each snow metric.

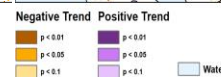
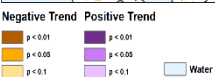
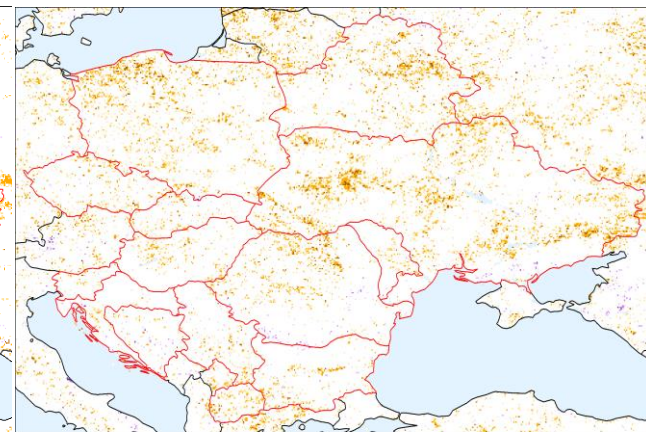
First Date of Snow (FDoS)



Last Date of Snow (LDoS)



Duration of Snow Season (DoSS)



## KEY POINTS

- ❖ Later snow arrival appears across Central – Western part of the region;
- ❖ Earlier snow departure over almost whole region, especially northern and northeastern parts of the region
- ❖ Lower number of dates with snow mostly over the Northern and Central part
- ❖ Shorter snow season across whole region
- ❖ Smaller difference between SCD and DoSS over Eastern part of the region; higher variation over Western and Southern part of the region