

Climatic Stressor Mapping (Exercise II)

The most critical climatic stressors and chances that affect vulnerability and adaptation in Estonian TA and for the implementation cases are marked with red.

Climate parameters and impacts	How significant the change of climate parameter or impact is for Estonian TA?	Likely direction of the change? How much / how often / for how long / where these stresses can occur?
No of cold days and nights (below 0°)	Not significant?	Duration of cold periods has decreased
Heat waves	Not significant	No significant heat waves in Estonia
Day and night temperature fluctuations around 0°	Significant impact	
Total precipitation/rainfall	Significant impact	Total precipitation has increased, especially in winter as rain and sleet
Periods with heavy precipitation	Significant impact if the periods last several days and frequency is increasing	
Storms (wind)	Significant impact	Models show that frequency is increasing
Cloudiness	Significant, but few data	
Snow cover duration	Significant impact	Decreasing trend
Ice cover extent	Significant impact in sea	Decreasing trend
Beginning of spring events	Significant impact	Has shifted to an earlier time
Spring peak discharge	Not very significant impact	Has shifted to an earlier time, the amount of water has decreased
Modification of water regime (incl. warming of lakes and rivers)	Impacts due to climate change likely not significant	There are not many water bodies in the TA.
Droughts	Significant impact in spring	More droughts in spring. Frequency of thunder has not changed.
Floods	Significant impact locally, but not for TA as a whole	Locally this year winter with heavy snow might have impact on spring flooding. Also caused by storms.
Length of the vegetation period	Neutral impact	Likely increase
Crop productivity	Neutral impact	In warmer and more humid climate, productivity might grow. No firm evidence on increasing productivity in long-



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		term perspective. Crop species and varieties will change.
Forest fires -> landscape fires (forest, bog, grass)	Significant impact	Risk is increasing due to more frequent droughts
Shifts in distribution of animal, plant and pest species, changes in abundance of populations	Not enough evidence	Some plant pest species have shifted to north.
Changes in allergic pollen (distribution)	Not known	Distribution might be affected by atmospheric humidity.
Vectors of infectious diseases (distribution)	No firm evidence	Infections of Lyme disease (tick borrelia) have increased
Ground instability – landslides	Not significant	More instable in SW Estonia
Coastal erosion	Not significant	Increases in coastal areas
Coastal flooding	Not significant	In certain areas
Loss of coastal wetlands	Not significant	
Sea level rise	Not significant	