

Project

Theme 6 | Effect of the land surface on precipitation events in the Netherlands

Description of research

My research investigates the influence of the land surface and (historical) land cover changes on regional precipitation events. I will test the sensitivity of the WRF model for surface changes and construct examples of future weather situations under different land-use scenarios for the Netherlands.

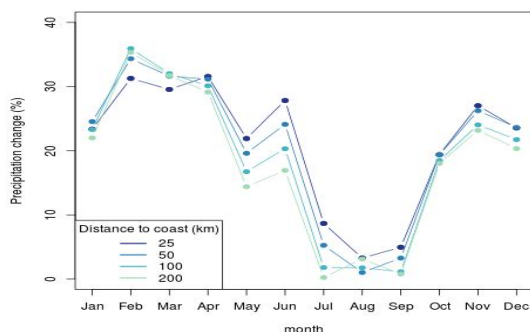


Research question

What is the effect of the land surface on precipitation events in the Netherlands?

The most important conclusions

- The Netherlands has seen an overall increase in precipitation in the last 60 years.
- The major explanatory variable in Dutch precipitation change is distance to the coast.



Possible applications from the project

- Development of sample future weather situations.
- Assessment climatological consequences of

large-scale adaptation measures.

- Insights on the two-way interaction between climate and land cover.



Bottlenecks of the project

- Influence of boundary conditions is larger than from surface variables.
- Model does not accurately simulate precipitation from meteorological forcing.

Opportunities for the project

- Severe weather classification.
- Cooperation with the KNMI to test and use the HARMONIE model.

More information

For more information about this project please contact:

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