

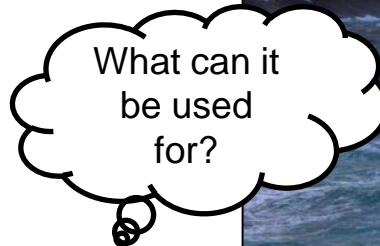
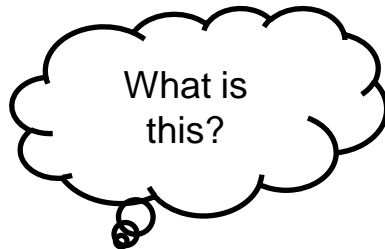
# New climate projections for Norway

Irene Brox Nilsen, 27. April 2022

Nilsen et al. (2022). From climate model output to actionable climate information in Norway. *Frontiers in Climate*. <https://doi.org/10.3389/fclim.2022.866563>

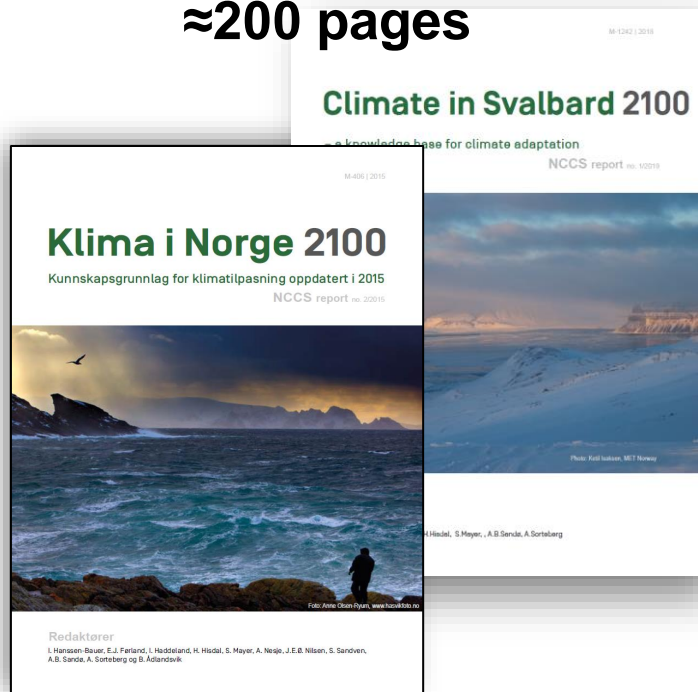
# Report «Climate in Norway 2100»

- National assessment of physical climate change
- Temperature, precipitation  
Floods, runoff  
Snow, glaciers  
Landslides  
Ocean climate



# Knowledge base for climate change adaptation

≈200 pages



≈ 8 pages





# Klimaframskrivninger

Klimaframskrivninger er beregninger av hvordan klimaet vil se ut frem i tid. Velg klimaindeks, utslippsscenario, årstid og geografisk område nedenfor. Klikk på info-boksene for forklaring av valgene.

[Mer om klimaframskrivingene og datagrunnlaget](#). For **havnivå** se [stormflo og havnivåstigning i kart](#) hos Kartverket. For **vind** gir klimamodellene liten eller ingen endring i midlere vindforhold i dette århundret, men usikkerheten i framskrivningene for vind er stor. Se [klimapåslag](#) for fremtidig utvikling av **kraftig nedbør, flom og stormflo**.

Select a climate index [i](#)

Temperatur ▾

Select a time period [i](#)

Hele året ▾

Select climate scenario [i](#)

RCP8.5 - høyt ▾

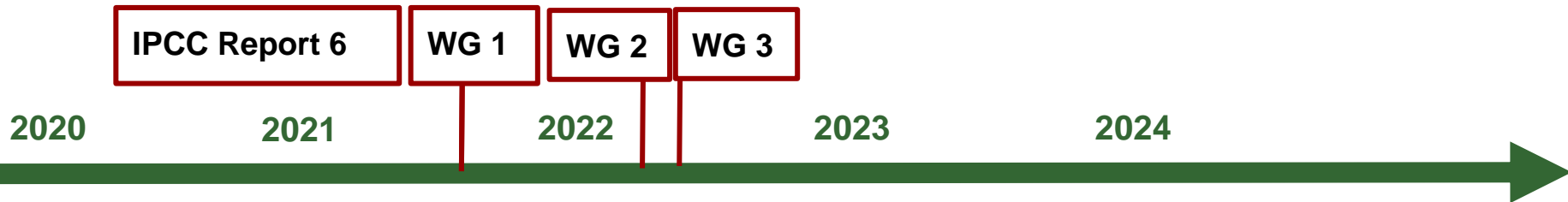
Select an area [i](#)

Norge ▾

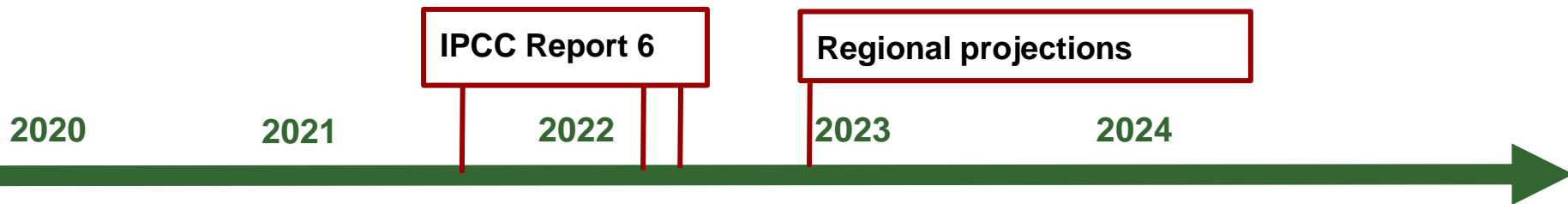
<https://klimaservicesenter.no/climateprojections>



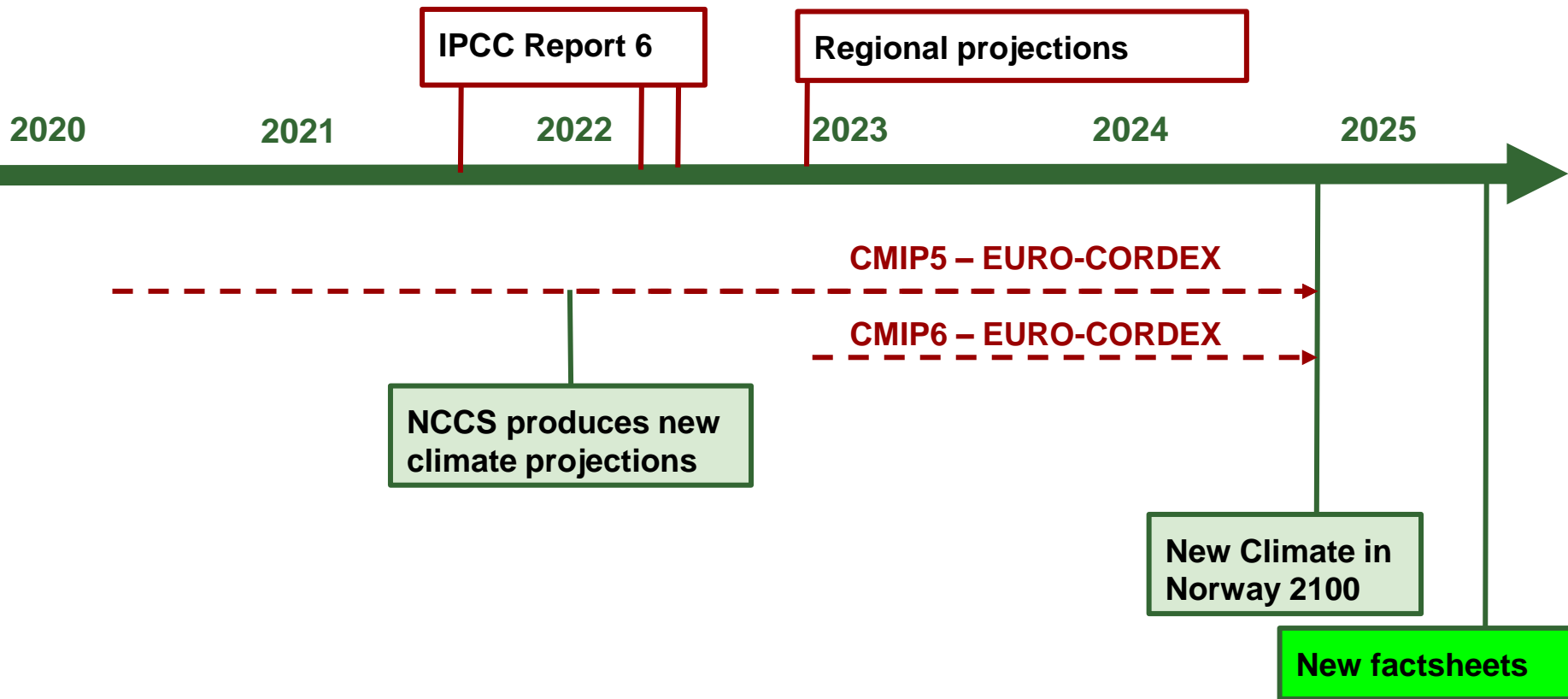
# New version of Climate in Norway is due in 2024



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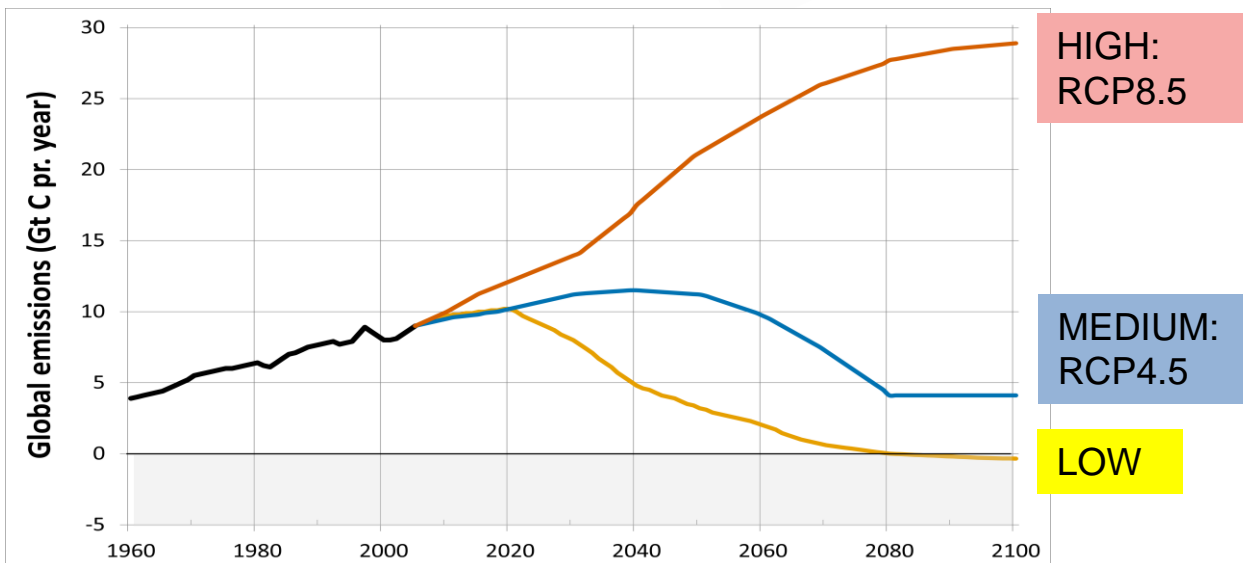
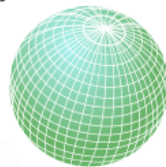
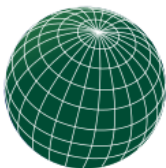


## Scenarios

RCP4.5

RCP8.5

## GCM-RCM combinations (n=10)

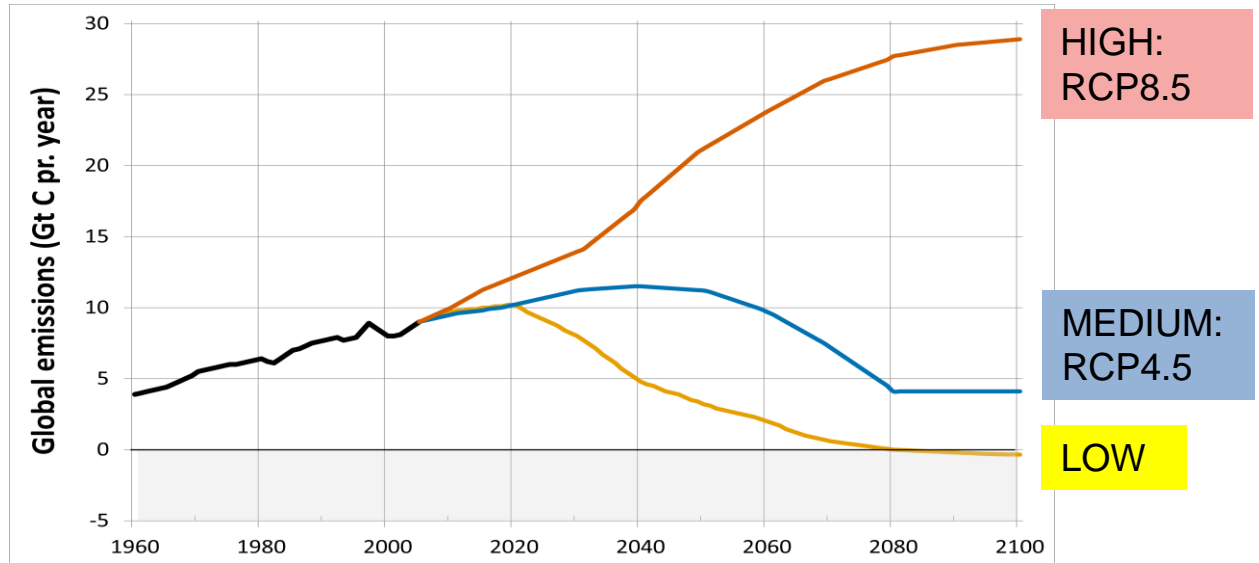
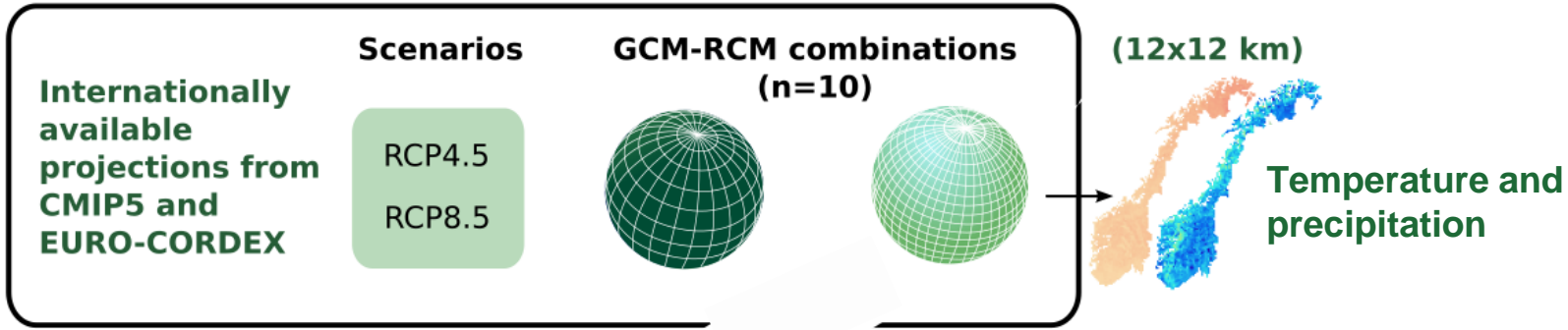


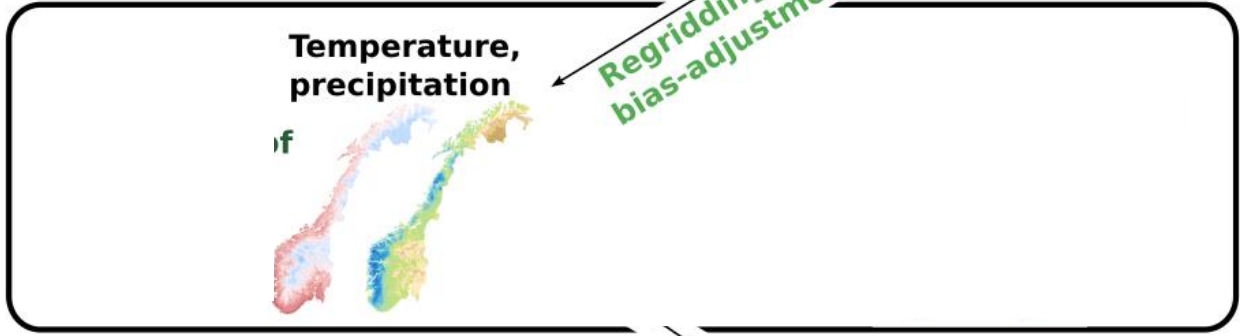
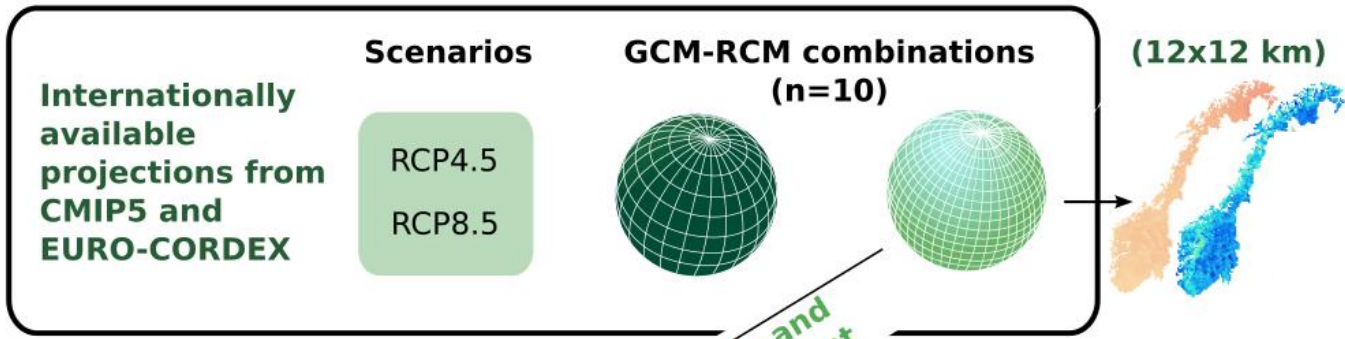
HIGH:  
RCP8.5

MEDIUM:  
RCP4.5

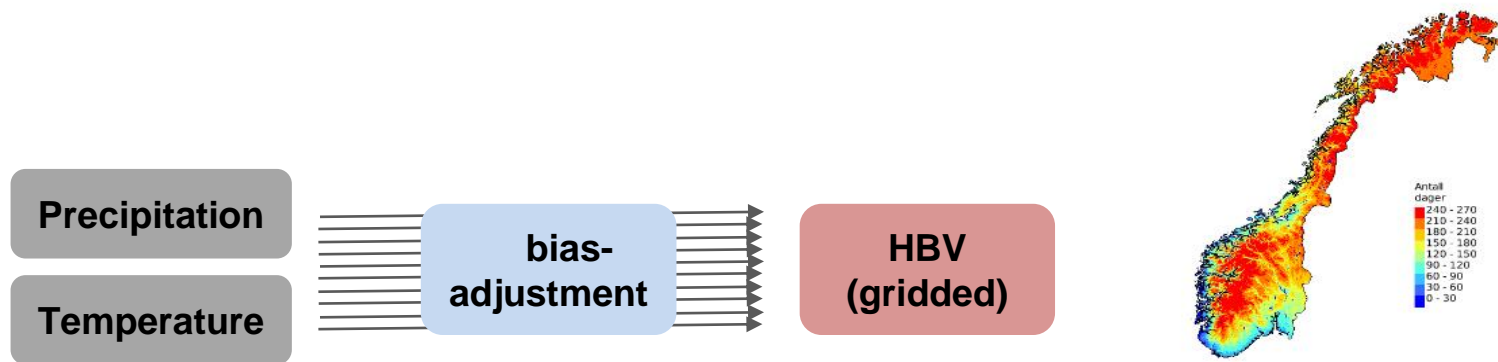
LOW



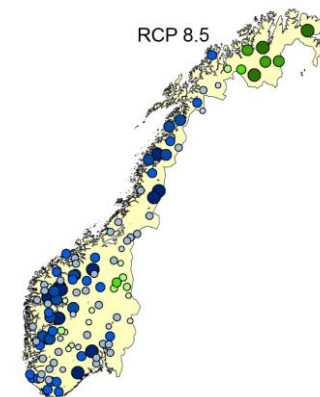
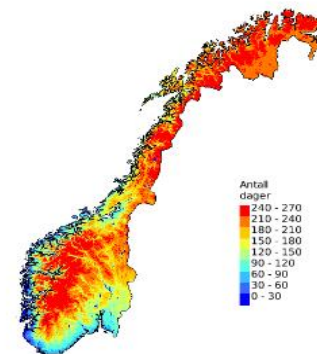
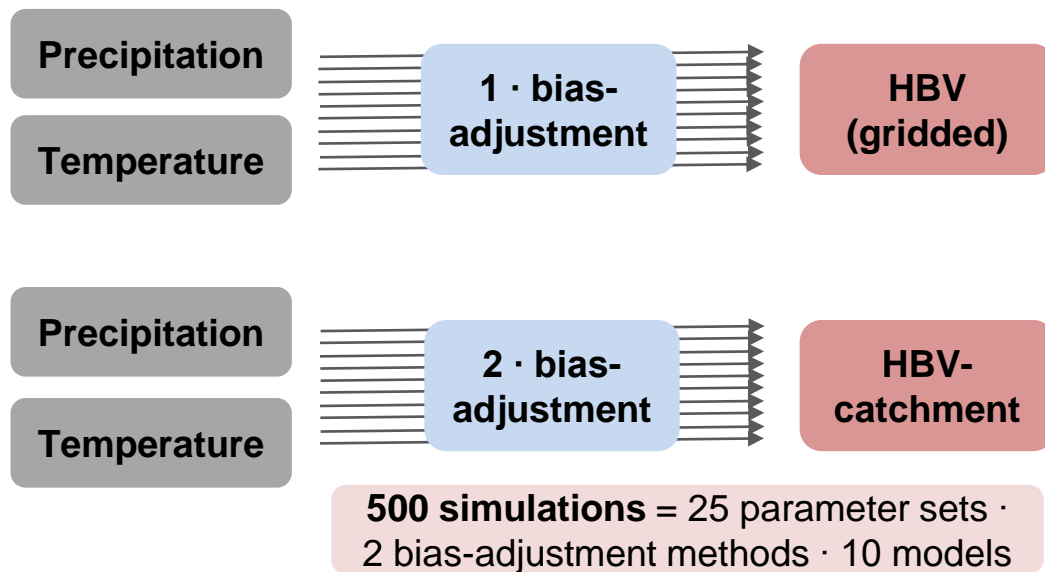




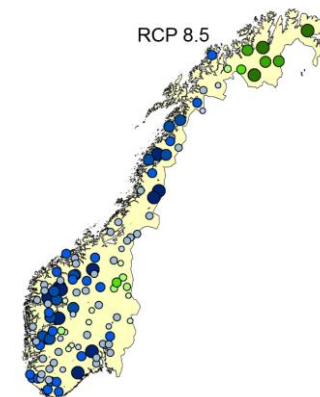
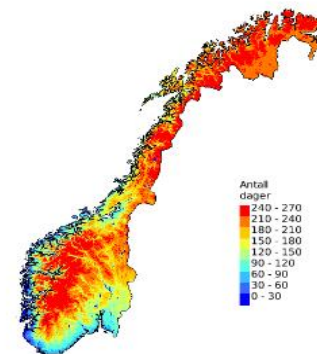
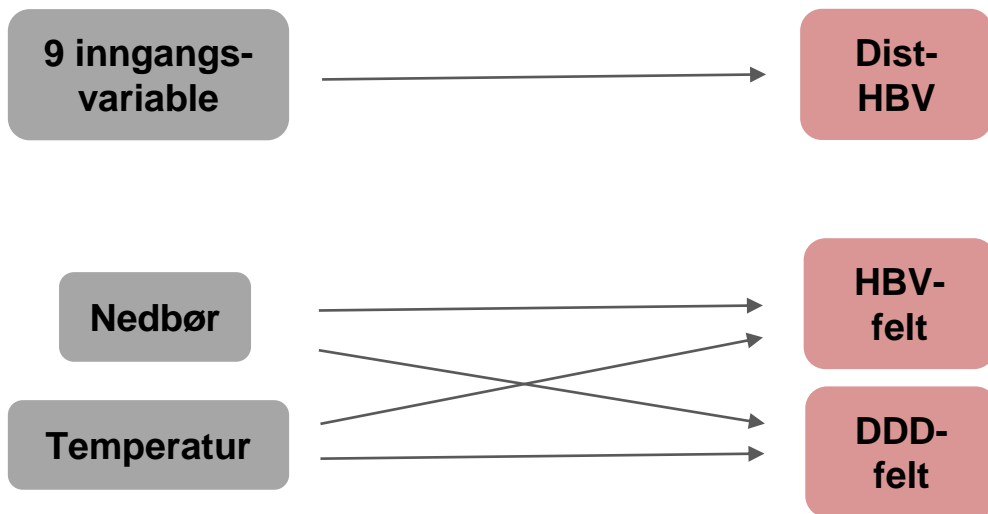
# Each scenario for each model is run through a hydrological model



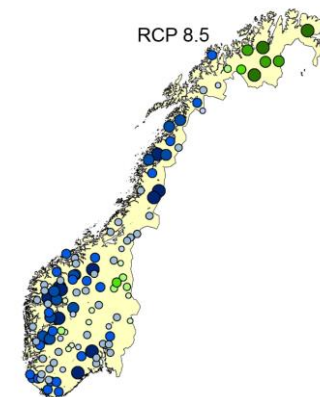
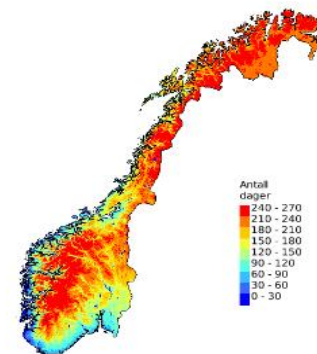
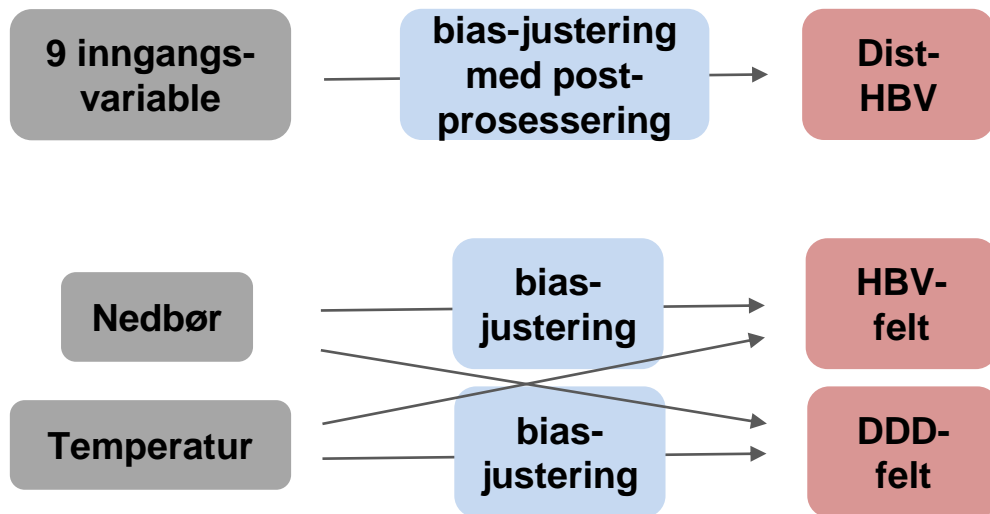
Each scenario for each model is run through a hydrological model, either grid-based or catchment-based

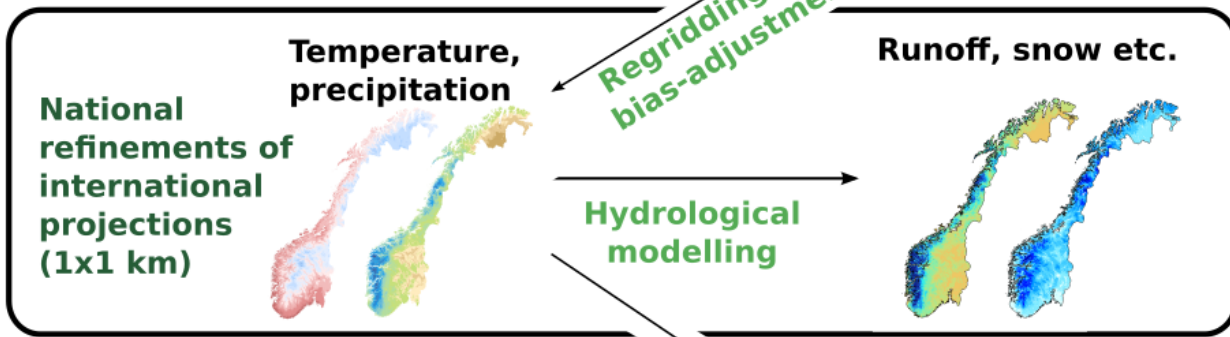
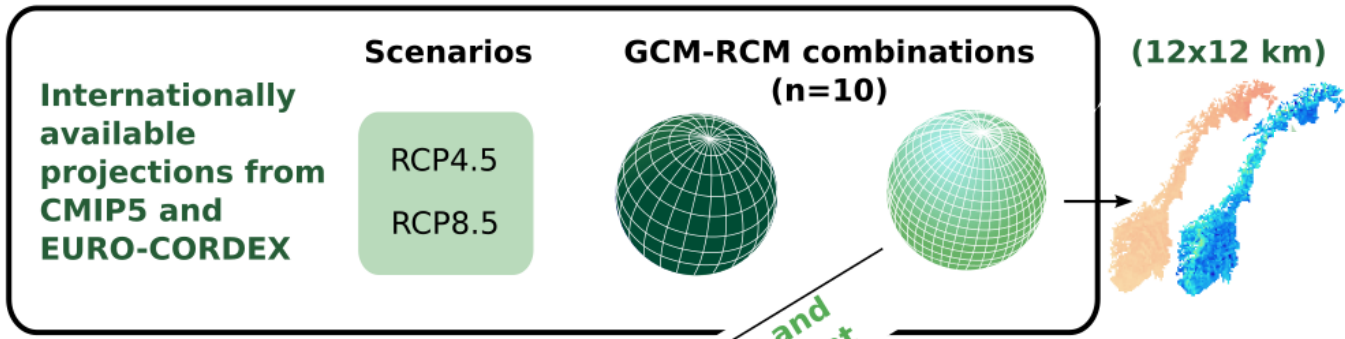


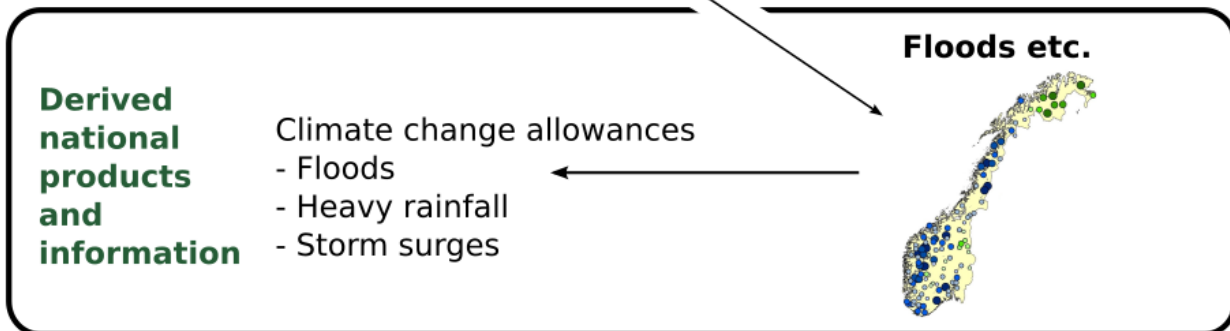
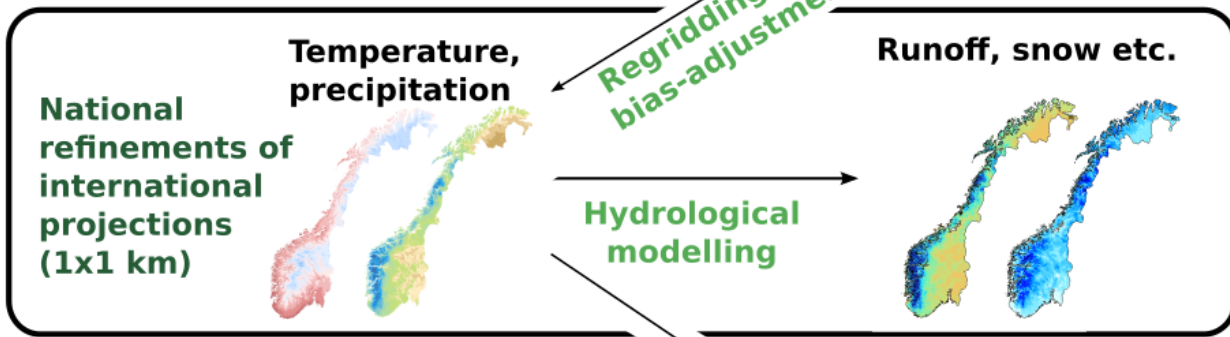
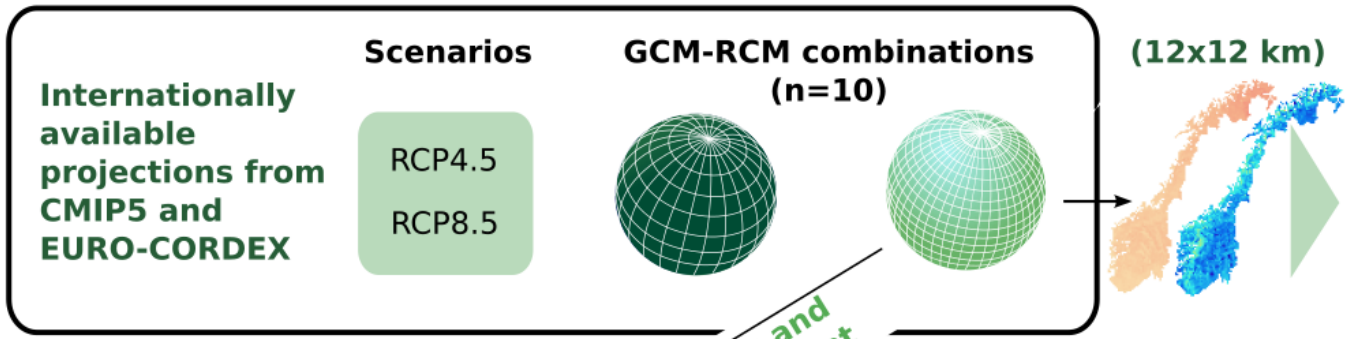
# Flere hydrologiske modeller, feltmodellene kjøres for 3 timer, distHBV har bedre fordampningsrutine ++



# Biasjusteringen inneholder en postprosessering for å gjenskape konsistens i tid, rom og mellom variable







- National products and user groups**
- Products
- Datasets
  - Reports
  - Factsheets
- User groups
- counties, municipalities
  - national authorities
  - industries/sectors
  - impact research



## ...to summarise...

- Knowledge base for climate change adaptation
- More information:
  - Heavy rainfall and stormwater runoff
  - landslides
  - Low-flow / drought?
  - wind ++
  - More models and methods
- Regional models are not ready yet, and downscaling takes time.

