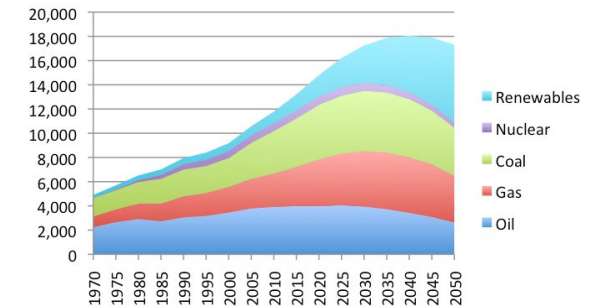
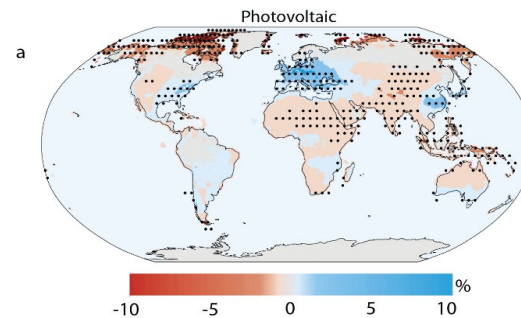
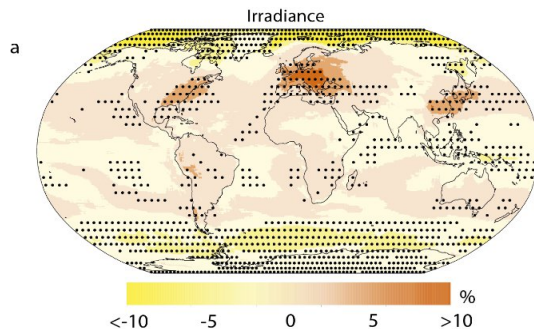


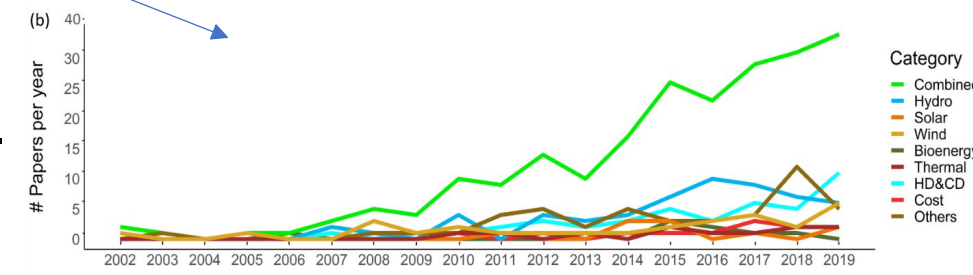
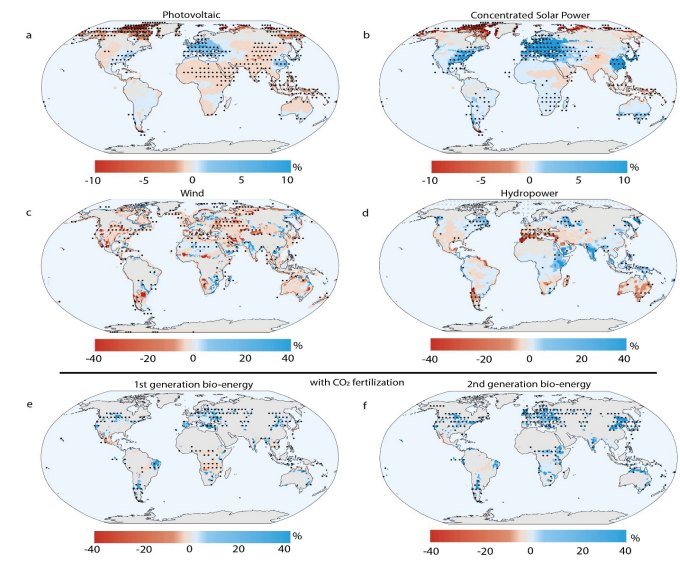
# Energy sector

- We are behind other sectors... first output last year
  - Starting to get good ideas on data needs, model comparison options.
- As a result, we are also not implementing the protocols very formally yet

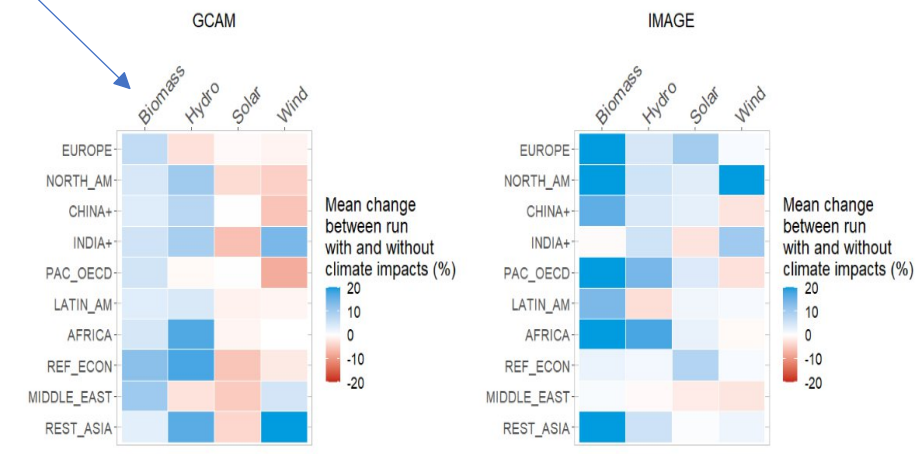


# Paper (plans)

- Gernaat et al. (forthcoming) – impacts on climate change on renewables (single model team)
- Yalew et al. (forthcoming) – literature review of climate change impacts on renewables.
- Zapata et al. (to be written) – analysis of multi-model study on climate change on renewables



Primary Energy Generation



---  
Special Issue on energy system impacts (*Energy and Climate Change*)

# Potential new areas to focus on:

- Cooling / heating demand (several of individual model studies) ☾ multimodel study.
- Impacts of climate change on cooling capacity thermal plants
- Impacts on existing energy infrastructure
- Impacts of extreme events
- Impacts of changes in variability
  - Data needs from ISIMIP

# ISIMIP3

- Not enough energy models 'ready to go'; still little experience in model comparison studies on climate change impact
  - None of the models can run the historical period
  - None of the models can run constant socio-economic circumstances
  - Still very large variability across models in terms of input data
- Look whether work at least identifying energy relevant physical data.