Closing Remarks

Additional primary climate forcing

for ISIMIP3a and ISIMIP3b

ISIMIP3a attribution set-up:

GSWP3-W5E5 based counterfactual climate forcings will become available for download next week, other pairs of factual-counterfactual climate forcings to follow

Do we want to add a 1km version for a subset of pairs?

ISIMIP3b

For which subset do we want to provide 1km data?
In the long run: We would like to provide high temporal resolution and are thinking about approaches and funding.

Demand for additional climate forcing beyond the ISIMIP3a/b protocol

Potential Secondary climate forcing

Additional GCM-based attribution set-up

Interest in bias-corrected **histnat** as secondary input

Additional future projections

Interest in additional bias-corrected GCM simulations for the scenarios selected in ISIMIP3b as secondary

Interest in bias corrected version of overshoot scenario in secondary forcing

Development of SOC forcing data for ISIMIP3b, group III

LU patterns

- We may get LU projections from three modelling teams (IMAGE, MAgPIE, GLOBIOM)!
- Still some work on the details but the way for generating the no-adaptation / adaptation projections is getting clearer and clearer.
- Which outputs are needed by other sector (land us, fertilizer input, irrigations fractions + ???)

Growing seasons adjustments

- There will be a way to account for growing seasons adjustments to climate change (adapation set-up) in a ‚rule-based' approach
- Not yet clear how to implement a no-adaptation setting where growing seasons (i.e. cultivars) will only be adjusted in response to socio-economic development.

Future dam locations and operating rules

cost-optimal locations for hydropower production (Gernaat et al. 2017), populated to match hydropower use from IAM scenario

no adaptation: optimal locations under current climate

adaptation: dam locations modified in response to climate change (details TBD)

operation rules: based on Gernaat et al. assumptions for hydropower production?

Sea Water Desalination and Inter-Basin Transfers:

Will be based on existing H08 and/or GCAM estimates but need updates and extensions - will be tackled in small working group.
IBT harder to implement, not clear if feasible.

Non-irrigation water withdrawals: Most promising strategy is to use water demand modeled and downscaled with GCAM. To be discussed further in smaller group.

Health

ISIMIP3a: Better accounting for SOC drivers in historical period: collection of data such as # of hospital beds per 1000 people from OECD, livestock density

ISIMIP3b, group III: Focus on forcings that are relevant for more than one sub-sector such as air condition für labor productivity und heat-related mortality (→ energy sector), forest cover (→ biomes sector)

Water quality assessments:

Let‘s make it happen!

Organize dedicated workshop to discuss the required interactions between the
agricuture, water, lakes, and marine ecosystems/ fisheries sector