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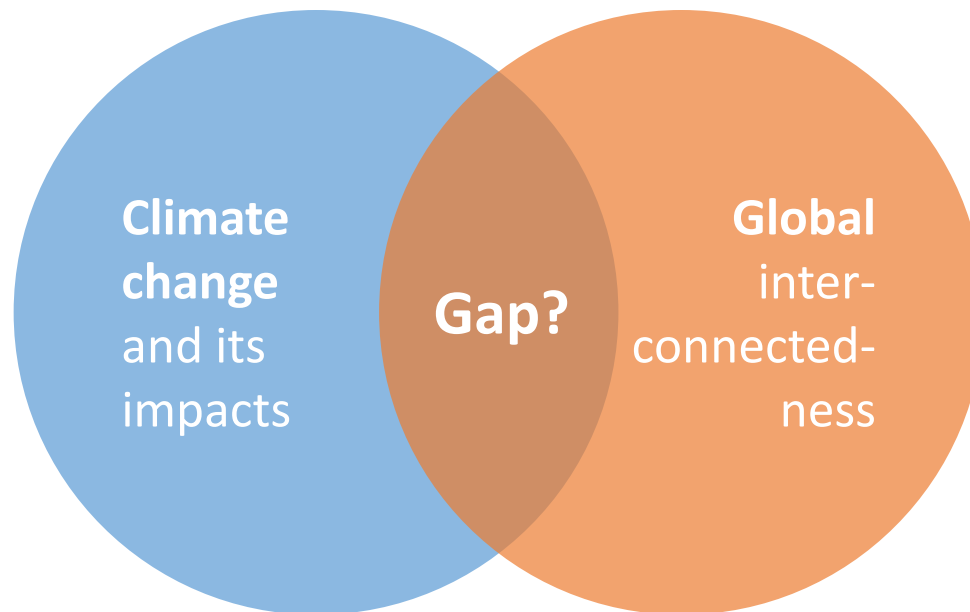
# Research challenges in assessing indirect international impacts of climate change

Workshop in Zurich, 26 September 2017

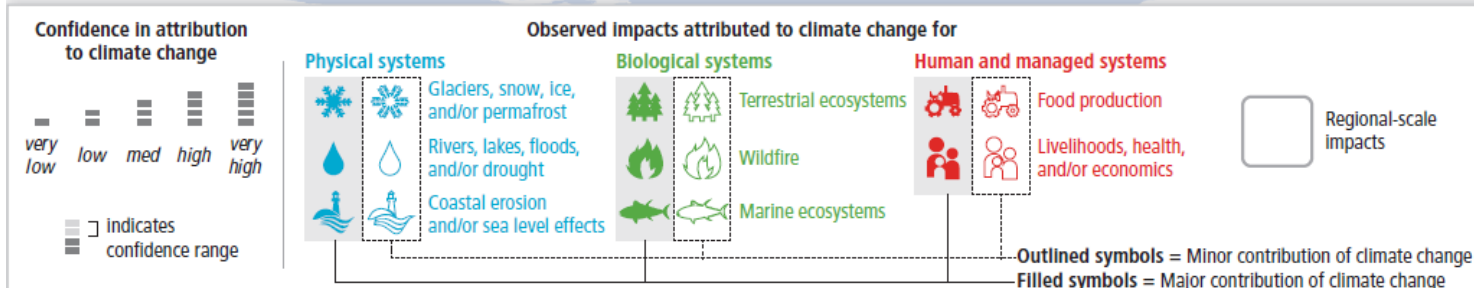
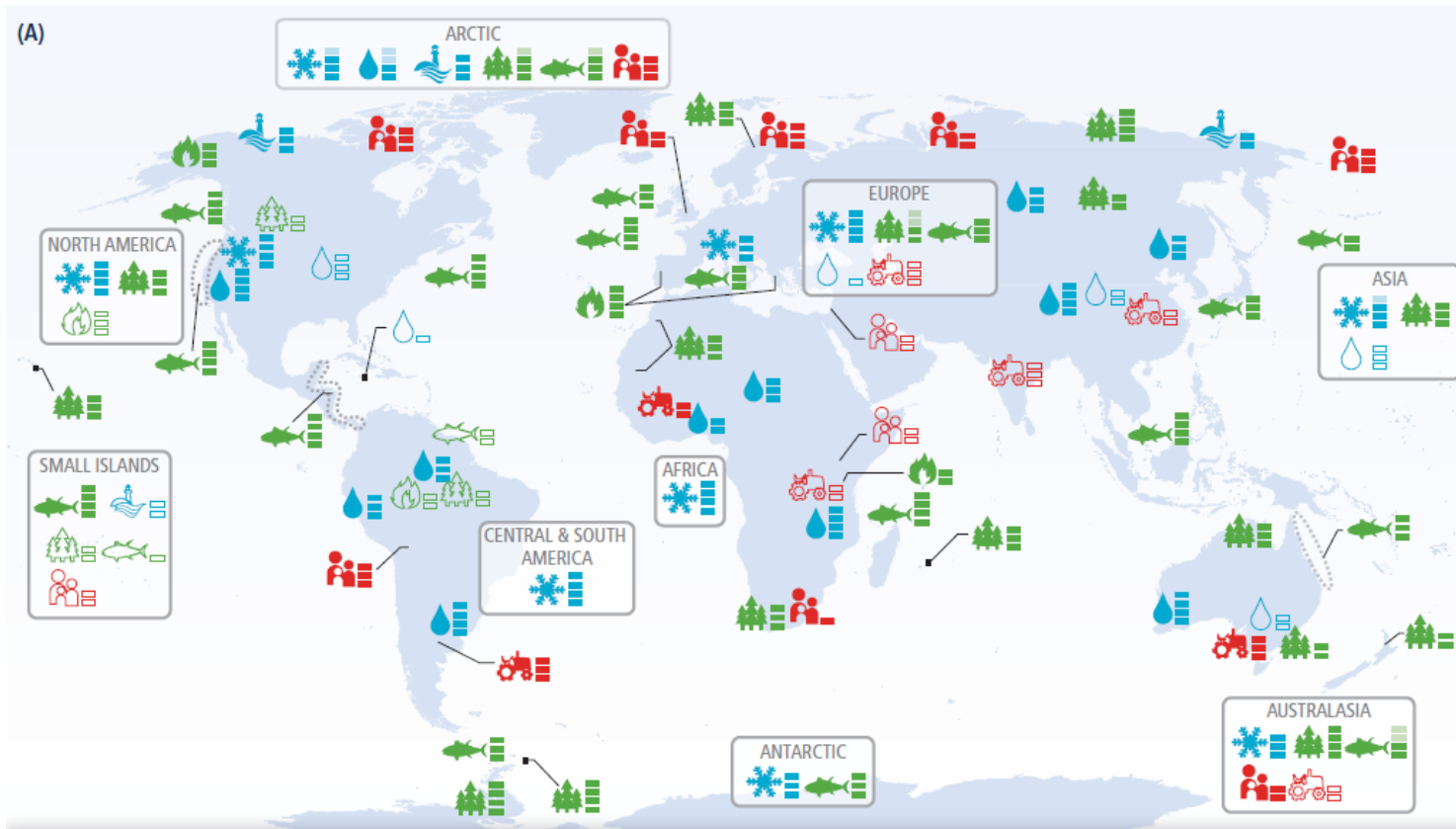


# Research on indirect international impacts

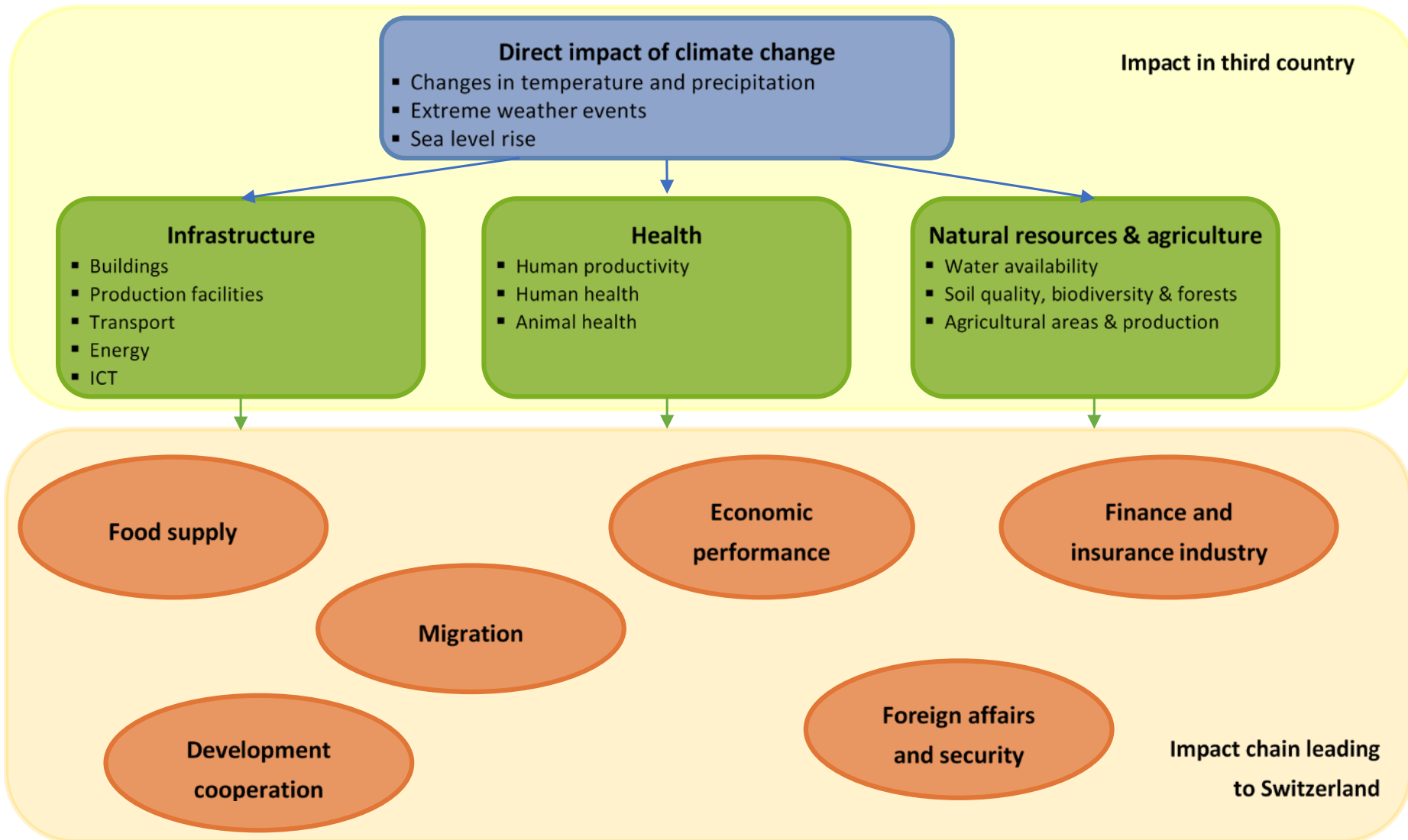
- Research combines many different research disciplines, datasets and tools
  - Research on climate change and its impact on physical, natural and human systems
  - Globally interconnected socio-economic systems – economy, trade, security, migration, aid



# IPCC WG II summary: impacts on physical, biological, human and managed systems



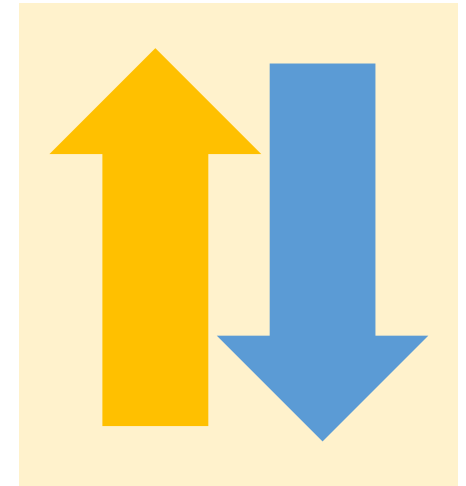
# Preliminary mapping of impacts and topics



# Research approach

## Combining research approaches in UBA project:

- **Bottom-up:** Case studies from literature, stakeholder interviews as input for developing impact chains and semi-quantitative extrapolation
- **Top-down:** using global dataset (e.g. ND Gain, CRI) as proxy for climate impact input in a global general equilibrium model



Combining approaches allows for a more comprehensive understanding of impact chains and helps to identify and fill knowledge gaps



# Research challenges

## Observations in projects:

- Complex impact chains: everything is connected to everything else
- Overview of potential impact chains and prioritizing: what is important?
- Low data availability on indirect international impacts
- Mismatch in scale: available global (country level) datasets on impacts are too coarse grained to model impact e.g. on production
- High (layering) uncertainties along impact chains

## Outlook:

- For many countries, international indirect impacts of climate change may be at least as significant as direct impacts
- Emerging topic – lots of puzzle pieces to be connected
- Tapping into new data sources: e.g. Task Force on Climate-related Financial Disclosures

# Thank you

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