Welcome to the ISIMIP-PROCLIAS Cross-sectoral Workshop

5.-8.6.2023

Katja Frieler & Christopher Reyer

Leibniz
Association

30
Celebrating 30 years of
integrated climate impact research
at the Potsdam Institute.

109 onsite
187 online

PROCLIAS aims and structure

"*in close cooperation with ISIMIP, PROCLIAS aims to develop common protocols, harmonized datasets and a joint understanding of how to conduct cross-sectoral, multi-model climate impact studies at regional and global scales allowing for attribution of impacts of recent climatic changes and robust projections of future climate impacts.*"

- Support ISIMIP networking
- Allow new scientists to join the network and contribute to ISIMIP
- Allow new scientists to learn how to use climate impact models and the data they produce
- Go beyond ISIMIP

PROCLIAS WG1

Active Task Groups represented at workshop

TG 1.1: Land-use pattern for ISIMIP3b, groupiii ⇒*test data available, presentation by Edna Molina*

TG 1.2: Automatic QC/QA of impact model output ⇒*QC operational, see ISIMIP highlights, break-out group/talk later by Hannes Müller-Schmied et al.*

TG 1.5: ISIMIP3 protocol and data paper ⇒*several protocol papers on the way*

TG 1.7: High resolution climate data for ISIMIP3 ⇒*presentation by Johanna Malle, break-out group*

TG 1.11: Groundwater modeling protocol ⇒*side-meeting*

Scenario set-up and forcing data for impact model evaluation and impact attribution within the third round of the Inter-Sectoral Model Intercomparison Project (ISIMIP3a)

Katja Frieler ✉, Jan Volkholz, Stefan Lange, Jacob Schewe, Matthias Mengel, María del Rocío Rivas López, Christian Otto, Christopher P. O. Reyer, Dirk Nikolaus Karger, Johanna T. Malle, Simon Treu, Christoph Menz, Julia L. Blanchard, Cheryl S. Harrison, Colleen M. Petrik, Tyler D. Eddy, Kelly Ortega-Cisneros, Camilla Novaglio, Yannick Rousseau, Reg A. Watson, Charles Stock, Xiao Liu, Ryan Heneghan, Derek Tittensor, Olivier Maury, Matthias Büchner, Thomas Vogt, Tingting Wang, Fubao Sun, Inga J. Sauer, Johannes Koch, Inne Vanderkelen, Jonas Jägermeyr, Christoph Müller, Jochen Klar, Iliusi D. Vega del Valle, Gitta Lasslop, Sarah Chadburn, Eleanor Burke, Angela Gallego-Sala, Noah Smith, Jinfeng Chang, Stijn Hantson, Chantelle Burton, Anne Gädeke, Fang Li, Simon N. Gosling, Hannes Müller Schmied, Fred Hattermann, Jida Wang, Fangfang Yao, Thomas Hickler, Rafael Marcé, Don Pierson, Wim Thiery, Daniel Mercado-Bettín, Matthew Forrest, and Michel Bechtold

A framework for ensemble modelling of climate change impacts on lakes worldwide: the ISIMIP Lake Sector

Malgorzata Golub, Wim Thiery ✉, Rafael Marcé, Don Pierson, Inne Vanderkelen, Daniel Mercado-Bettin, R. Iestyn Woolway, Luke Grant, Eleanor Jennings, Benjamin M. Kraemer, Jacob Schewe, Fang Zhao, Katja Frieler, Matthias Mengel, Vasiliy Y. Bogomolov, Damien Bouffard, Marianne Côté, Raoul-Marie Couture, Andrey V. Debolskiy, Bram Droppers, Gideon Gal, Mingyang Guo, Annette B. G. Janssen, Georgiy Kirillin, Robert Ladwig, Madeline Magee, Tadhg Moore, Marjorie Perroud, Sebastiano Piccolroaz, Love Raaman Vinnaa, Martin Schmid, Tom Shatwell, Victor M. Stepanenko, Zeli Tan, Bronwyn Woodward, Huaxia Yao, Rita Adrian, Mathew Allan, Orlane Anneville, Lauri Arvola, Karen Atkins, Leon Boegman, Cayelan Carey, Kyle Christianson, Elvira de Eyto, Curtis DeGasperi, Maria Grechushnikova, Josef Hejzlar, Klaus Joehnk, Ian D. Jones, Alo Laas, Eleanor B. Mackay, Ivan Mammarella, Hampus Markensten, Chris McBride, Deniz Özkundakci, Miguel Potes, Karsten Rinke, Dale Robertson, James A. Rusak, Rui Salgado, Leon van der Linden, Piet Verburg, Danielle Wain, Nicole K. Ward, Sabine Wollrab, and Galina Zdorovennova

CHELSA-W5E5: Daily 1 km meteorological forcing data for climate impact studies

Dirk Nikolaus Karger ✉, Stefan Lange, Chantal Hari, Christopher P. O. Reyer, Olaf Conrad, Niklaus E. Zimmermann, and Katja Frieler

Funded by the European Union

PROCLIAS WG2

Active Task Groups represented at workshop

TG 2.1: Methods for climate impact attribution ⇒*webinar, workshop in Brussels in September, session Tuesday morning*

TG 2.3: Novel approaches to model uncertainty assessments ⇒*paper presented by Olalla Diaz in forest session*

TG 2.5: Country-scale forest modelling ⇒*contributes to TG1.7, meeting on Tuesday*

Accuracy, realism and general applicability of European forest models

Mats Mahnken ✉, Maxime Cailleret, Alessio Collalti, Carlo Trotta, Corrado Biondo, Ettore D'Andrea, Daniela Dalmonech, Gina Marano, Annikki Mäkelä, Francesco Minunno, Mikko Peltoniemi, Volodymyr Trotsiuk, Daniel Nadal-Sala, Santiago Sabaté, Patrick Vallet, Raphaël Aussenac, David R. Cameron, Friedrich J. Bohn, Rüdiger Grote, Andrey L. D. Augustynczik, Rasoul Yousefpour, Nica Huber, Harald Bugmann, Katarina Merganičová, Jan Merganic, Peter Valent, Petra Lasch-Born, Florian Hartig, Iliusi D. Vega del Valle, Jan Volkholz, Martin Gutsch, Giorgio Matteucci, Jan Krejza, Andreas Ibrom, Henning Meesenburg, Thomas Rötzer, Marieke van der Maaten-Theunissen, Ernst van der Maaten, Christopher P. O. Reyer

First published: 12 August 2022 | https://doi.org/10.1111/gcb.16384 | Citations: 1

WEBINAR SERIES
Climate impact attribution

27 Jan. 1pm CET	Classical climate change detection & attribution (G Hegerl)
3 Mar. 1pm CET	Attributing of extreme weather events (F Otto)
28 Apr. 1pm CET	Concepts of climate impact attribution (K Frieler & M Mengel)
9 May. 1pm CET	Machine-learning for climate impact attribution (M Callaghan & Q Lejeune)
23 May. 1pm CET	Attribution of European heavy rainfall event of July 2021 (J Tradowsky)
14 Jun. 1pm CET	Attribution of crop production loss in West Africa (B Sultan)
5 Jul. 1pm CET	Attribution of physical changes in freshwater lake systems (L Grant)

PROCLIAS WG3

Active Task Groups represented at workshop

TG 3.2: Impact of heat on labour and mortality, incorporating adaptation effects ⇒ *several STSMs, third meeting already*

TG 3.9: Global water quality modelling protocol ⇒ *webinar series, workshop 2022 and 2023, sessions later this week*

TG 3.11: Incorporating adaptation in heat-related mortality ⇒ *expert elicitation meeting this week*

THE LANCET
Public Health

Volume 7, Issue 11, November 2022, Pages e942-e965

Countdown
The 2022 Europe report of the *Lancet* Countdown on health and climate change: towards a climate resilient future

Kim R van Daalen MPhil [a d], Marina Romanello PhD [a], Prof Joacim Rocklöv PhD [e f], Prof Jan C Semenza PhD [e], Cathryn Tonne ScD [h i j], Prof Anil Markandya PhD [k], Niheer Dasandi PhD [l], Prof Slava Jankin PhD [m], Hicham Achebak PhD [h], Joan Ballester PhD [h], Hannah Bechara PhD [m], Max W Callaghan MPP [n o], Jonathan Chambers PhD [p], Shouro Dasgupta PhD [q r], Paul Drummond MSc [b], Zia Farooq MSc [f], Olga Gasparyan PhD [m], Nube Gonzalez-Reviriego PhD [s], Prof Ian Hamilton PhD [c], Risto Hänninen DSci [t]... Prof Rachel Lowe PhD [s ab ac]

ARTICLES | VOLUME 5, ISSUE 7, E455-E465, JULY 2021

Effects of climate change on combined labour productivity and supply: an empirical, multi-model study

Shouro Dasgupta, PhD • Nicole van Maanen, MSc • Prof Simon N Gosling, PhD • Franziska Piontek, PhD • Christian Otto, PhD • Carl-Friedrich Schleussner, PhD

Open Access • Published: July, 2021 • DOI: https://doi.org/10.1016/S2542-5196(21)00170-4 • Check for updates

PROCLIAS WG4

⇒ **New lead Albert Nkwasa, session on Wednesday morning**

TG 4.2: Stakeholder mapping ⇒ ongoing but needs support

TG 4.3: Communication

TG 4.4: ISIpedia

Short-term Scientific Missions & ITC Grant 2022/2023

Konstantin Gregor @ **UC Berkeley**

Laura Dobor @ **ETH Zürich**

Shouro Dasgupta @ **LSE**

Athanasios Tsilimigkras @ **UKCEH & Met Office**

Michael Wögerer @ **PIK & PBL**

Jan Volkholz @ **Tokyo University**

Doroteja Bitunjac @ **Slovak Academy of Sciences & CZU**

Rogert Sorí Gómez @ **Sofia University**

Johanna Malle @ **PIK**

Mats Mahnken @ **LESSEM**

Sarah Hilfiker @ **TUM**

Hamdi Tekin @ International Agricultural, Biological and Life Science Congress Turkey
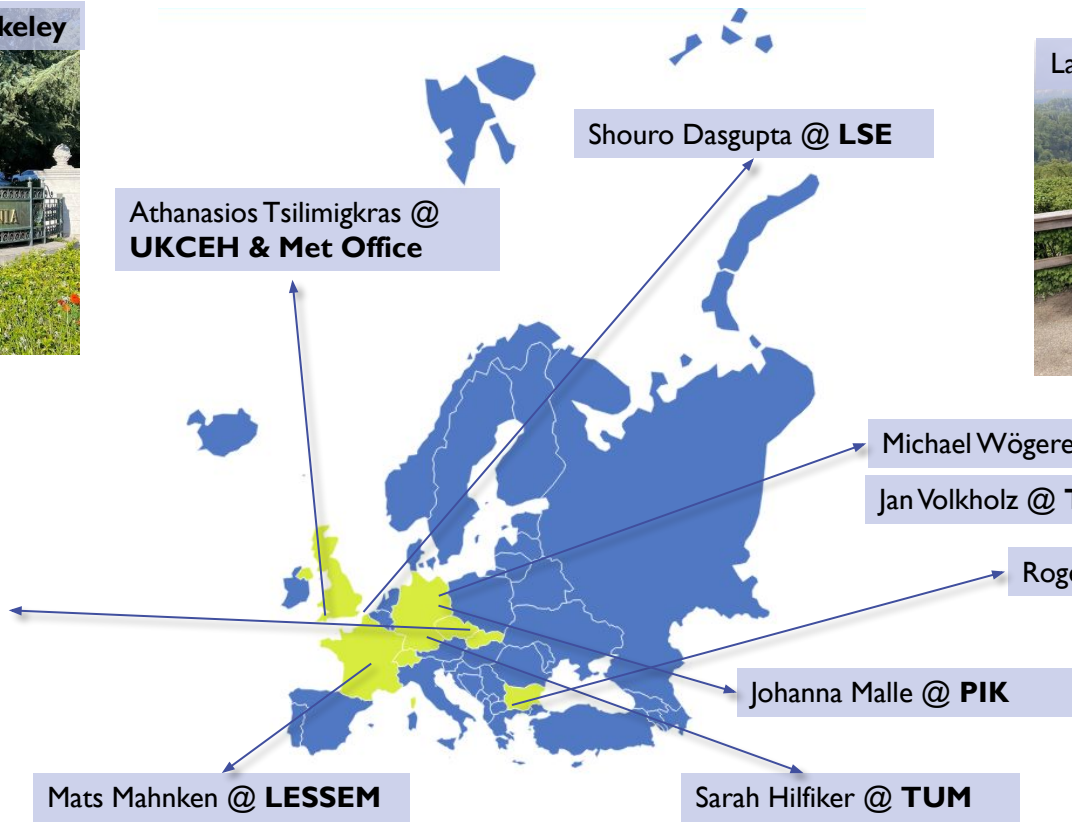
Webinars and Meetings

- 2022 PROCLIAS-ISIMIP Webinar Series on **Water Quality**
- 2022 PROCLIAS-ISIMIP Webinar Series on **Climate Impact Attribution**
- 06/2022 PROCLIAS TG 2.3 Workshop on **Tree Regeneration Modeling**
- 08/2022 PROCLIAS-ISIMIP **Global Water Quality Modelling** Protocol Workshop
- 08/2022 PROCLIAS-ISIMIP Webinar on **IPBES Nexus Assessment Report**
- 09/2022 ISIMIP Water Sector **Paper Writing** Workshop
- 09/2022 PROCLIAS TG 3.2 Workshop: **Labour productivity**
- 09/2022 PROCLIAS TG 3.11 Workshop: **Incorporating adaptation in heat-related mortality**
- 03/2023 ISIMIP **Lake Sector Paper Writing** Workshop
- 03/2023 Three Sessions of ISIMIP/PROCLIAS-related scientists at the **EGU General Assembly**

See: PROCLIAS Website *> Reports from Meetings*
(https://proclias.eu/output/past-meetings)

Interdisciplinary summer school on forest ecosystems

Ljubljana, Slovenia, 10-14 July, 2023.

Application deadline: 31 March, 2023

Organizers from 3 COST Actions:

3DForEcoTech, Bottoms-up, PROCLIAS

Aim of the summer school is to link forest dynamics models with modern technologies and comprehensive biodiversity data

Paper collections

Nature cross-journal collection of papers - Attribution
Now open to submissions to NCC. Papers not accepted there will trickle down to other journals.
3 expected submissions in June (fire, West Nile Virus, stillbirths)
4 expected submissions before summer break (biomes, wildfire-health, labour, food security)
more submissions after summer (2x agriculture, heat-related mortality, …)
aim: keep the collection open to additional papers inspired by the first batch.

Regional water sector Special Issue in Climatic Change - Attribution
2 papers accepted, 6 under review, one Editorial

FishMIP Special Issue in Earth's Future: Past and Future of Marine Ecosystems

Covered topics: Projections and uncertainties, model evaluation, detection and attribution of past change, and future human-use scenarios to better support policy and decision-making.

Submission deadline: **Sunday, 31 December 2023**

New sectors

- Labour supply and labour productivity
  (Shouro Dasgupta)

- Water quality
  (Maryna Strokal)

- Groundwater
  Robert Reinecke

- Food security and Malnutrition
  (Elizabeth Robinson, Shouro Dasgupta)
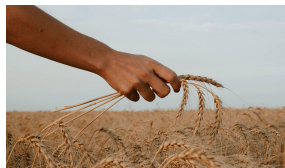
Status of the protocol

ready for publication

under development

under development

ready for publication

New person responsible for the climate-related forcings

- Dánnell Quesada

Updates: Data portal, QC-Tool…

- Migration to the new **ISIMIP repository** at https://data.isimip.org is now complete. The archive contains 262,876 datasets (~115 Tb).
- **DOI** for ISIMIP2a/2b output data and ISIMIP3a/3b input data are available: https://data.isimip.org/doi
- **Caveats and updates** system https://data.isimip.org/caveats/ to inform modellers and data users about changes to the data. Please subscribe to `isimip-data_updates@listserv.dfn.de`.
- The **ISIMIP quality control tool (isimip-qc)** can be used to check the formal conformity with the protocol by both, modellers and the data team. https://github.com/ISI-MIP/isimip-qc ⇒**developed in PROCLIAS TG1.2**
- We are working on a similar **ISIMIP quality assessment (isimip-qa)** to check for problems with the data content of the files ⇒**developed in PROCLIAS TG1.2**
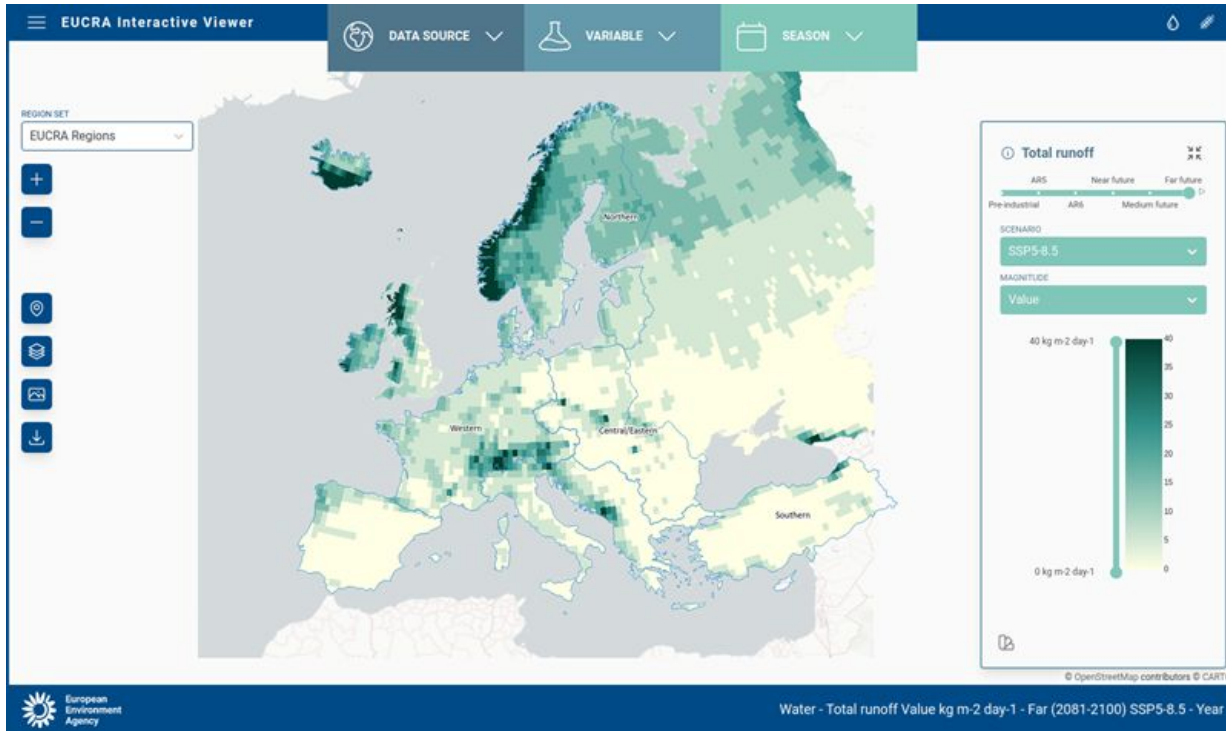
EUCRA Interactive Viewer

Developed under contract by the European Environment Agency (EEA) to support / complement the ongoing European Climate Risk Assessment (EUCRA)
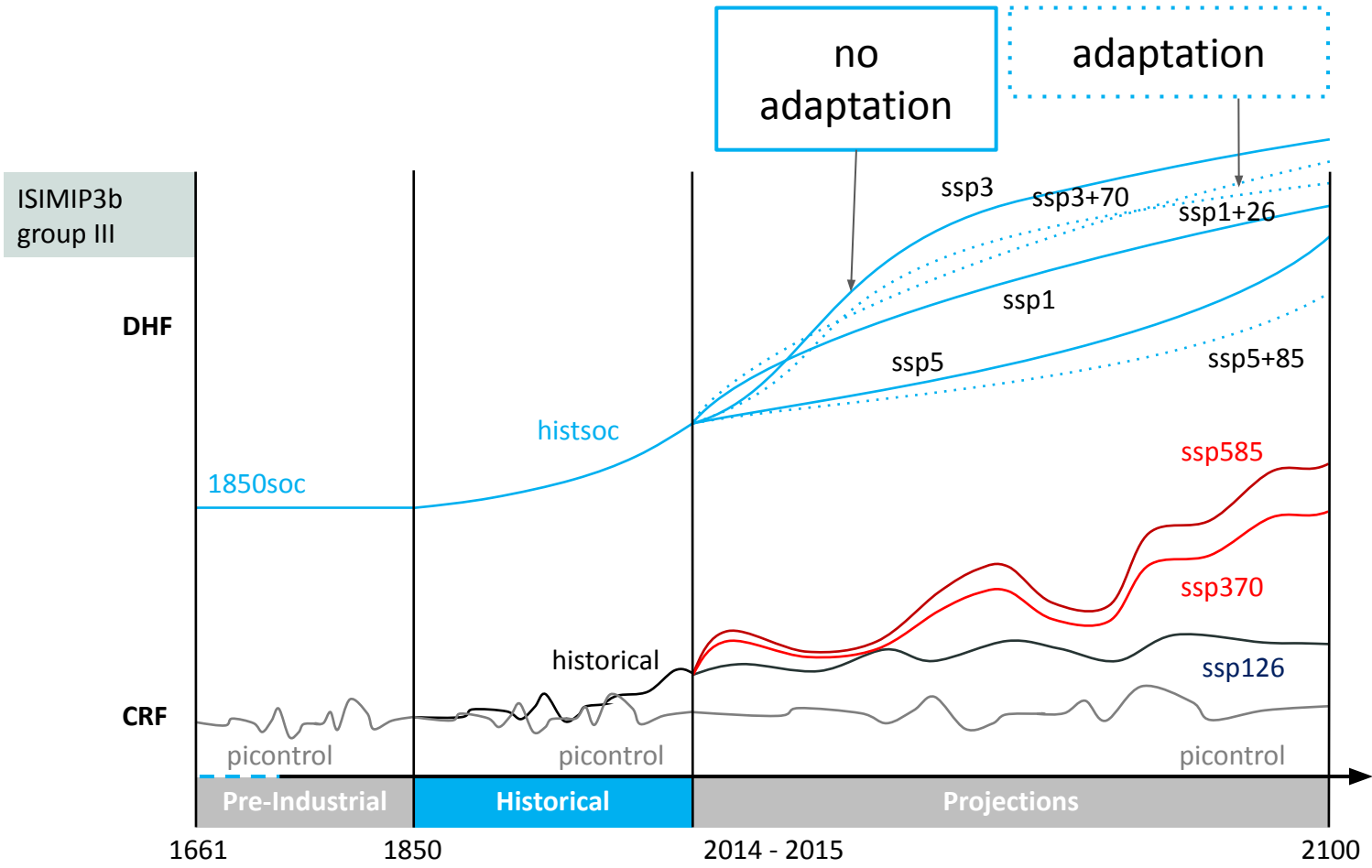
https://eea-eucra.predictia.es

Username: predictia

Password: demo

Look for Ana Casanueva to discuss questions on the viewer & presentation by Julie Berckmans on Wednesday

ISIMIP3b group III

no adaptation

adaptation

DHF

ssp3
ssp3+70
ssp1+26
ssp1
ssp5
ssp5+85

histsoc

1850soc

ssp585
ssp370

historical
ssp126

CRF

picontrol
picontrol
picontrol

Pre-Industrial
Historical
Projections

1661
1850
2014 - 2015
2100

Online protocol draft

RCP2.6 2015soc-from-histsoc 1st priority	Identical to the similar **picontrol/1850soc** run above.	historical	ssp126
ISIMIP3b agriculture biodiversity biomes diarrhea fire health coastal labour lakes_global lakes_local marine-fishery_global marine-fishery_regional peat permafrost water_global water_regional		histsoc	2015soc-from-histsoc
RCP2.6 2015soc 1st priority	Does not have to be simulated, spin-up should be based on the 2015 DHF (see note below the table).	historical	ssp126
ISIMIP3b agriculture biodiversity biomes coastal diarrhea fire health coastal labour lakes_global lakes_local peat permafrost water_global water_regional		2015soc	2015soc
RCP2.6 1850soc 2nd priority	Identical to the similar **picontrol/1850soc** run above.	historical	ssp126
ISIMIP3b biomes lakes_global lakes_local peat permafrost water_global		1850soc	1850soc
RCP2.6 nat 2nd priority	Does not have to be simulated, spin-up should not use any DHF (see note below the table).	historical	ssp126
ISIMIP3b biomes peat marine-fishery_global marine-fishery_regional		nat	nat
RCP2.6 ssp126soc 1st priority	Identical to the similar **picontrol/1850soc** run above.	Identical to the similar **historical/histsoc** run above.	ssp126
ISIMIP3b agriculture biodiversity biomes diarrhea fire health coastal labour lakes_global lakes_local marine-fishery_global marine-fishery_regional peat permafrost water_global water_regional			ssp126soc-noadapt
RCP2.6 ssp126soc-adapt 1st priority	Identical to the similar **picontrol/1850soc** run above.	Identical to the similar **historical/histsoc** run above.	ssp126
ISIMIP3b agriculture biodiversity biomes diarrhea fire health coastal labour lakes_global lakes_local marine-fishery_global marine-fishery_regional peat permafrost water_global water_regional			ssp126soc-adapt

	no adaptation	adaptation	To do
LU patterns	SSP1/ SSP3/ SSP5	SSP126/ SSP370/ SSP585	harmonization of GLOBIOM, IMAGE patterns
irrigation patterns	SSP1/ SSP3/ SSP5	SSP126/ SSP370/ SSP585	harmonization of GLOBIOM, IMAGE patterns, quality check
fertilizer input rates	SSP1/ SSP3/ SSP5	SSP126/ SSP370/ SSP585	bias adjustment of LUM national rates to LUH2 rates, addition of manure
growing seasons	fixed present day	SSP126/ SSP370/ SSP585	ready
hydropower dam locations	SSP1/ SSP3/ SSP5	SSP126/ SSP370/ SSP585	map to 0.5 degree grid, add upstream areas for inclusion into models
irrigation techniques shares	SSP1/SSP3/SSP5	SSP126/ SSP370/ SSP585	can be provided but needs clarification how to apply in models
non-irrigation water use	SSP1/SSP3/SSP5	-	under development (electricity inputs ready)

	no adaptation	adaptation	To do
sea water desalination	SSP1/SSP3/SSP5	SSP126/ SSP370/ SSP585	ready
inter-basin water transfer	existing/under construction	existing/under construction/planned	ready
population patterns	SSP1/ SSP3/ SSP5	-	harmonization of gridded data to national totals
GDP	SSP1/ SSP3/ SSP5	-	harmonization of gridded data to national totals
fishing intensities	SSP1/ SSP3/ SSP5	SSP126/ SSP370/ SSP585	under development (see presentation by Olivier Maury)
heat-related mortality	?	?	under development
labour productivity	?	?	under development

# Adaptation challenge: Other measures to take into account?

… by additional / more detailed data sets on DHF:

- drainage of wetlands (peat)
- more detailed specification of land use (biodiversity)

… in a more rule-based approach:

- Changes in fire management (fire, biomes)
- changes in agricultural practices (agriculture)
- dam operations (global / regional water)
- flood protection levels (water / coastal systems)
- forest management (biomes / regional forest)

What level of adaptation do we want to consider in these additional measures?
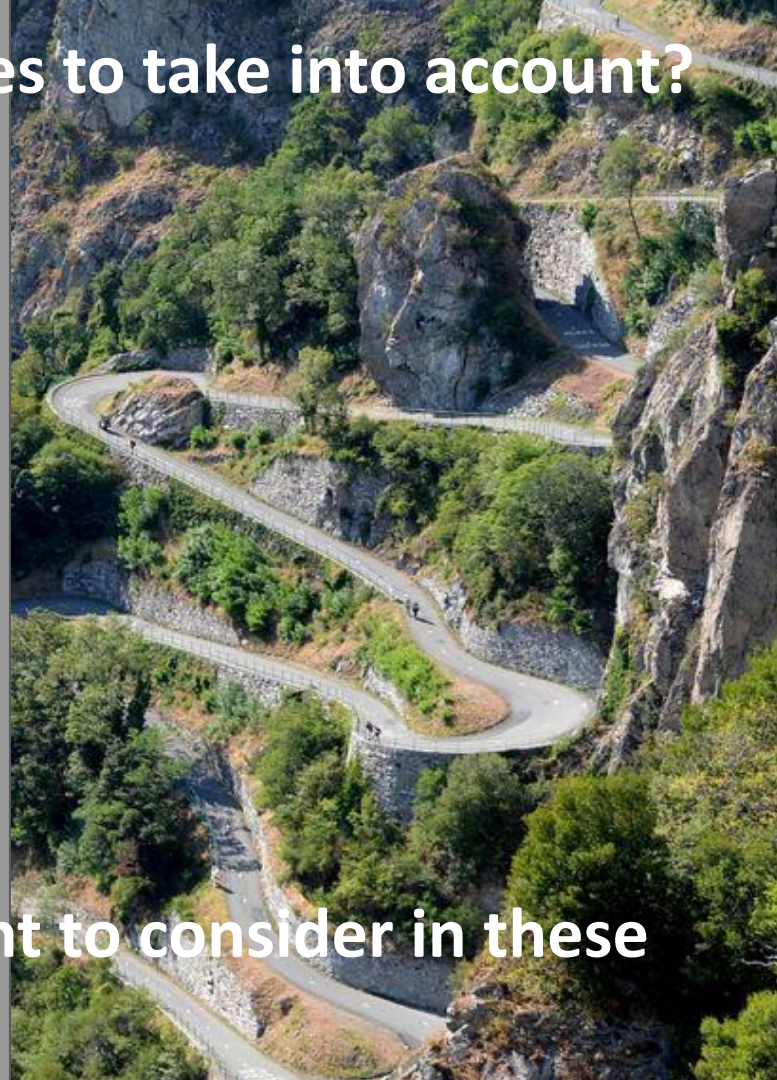
The key risks challenge

Climate data

Observational
Counterfactual
GCM-based

Direct
Human Forcing
LU and irrigation pattern, water and agricultural management, dams, reservoirs, population pattern, GDP…

Observational
SSP-based

Impact
Models

Water
Agriculture
Coastal
systems
Ecosystems
Health
Fishery
Energy

ISIMIP
Inter-Sectoral Impact Model
Intercomparison Project

Biophysical indicators

Discharge
Soil moisture
Crop yields
Vegetation coverage

Areas affected by extremes

Areas suitable for West Nile Virus, malaria…

Development of empirical or process-based models

Code	Representative key risk
RKR-A	Risk to low-lying coastal socio-ecological systems
RKR-B	Risk to terrestrial and ocean ecosystems
RKR-C	Risks associated with critical physical infrastructure, networks and services
RKR-D	Risk to living standards
RKR-E	Risk to human health
RKR-F	Risk to food security
RKR-G	Risk to water security
RKR-H	Risks to peace and to human mobility

"Look into the future" challenge AR7

CMIP7… ISIMIP4…

ScenarioMIP workshop:

Pathway to next generation scenarios for CMIP7 and AR7, Reading, 20-22 June

"Important characteristics of the ScenarioMIP experimental design from the IAV perspective"

Upcoming survey on the demands

1. What sector do you most identify with?

2. Should CMIP7 consider new scenarios or update the existing ones based on the next generation of ESMs?

3. If you could only select two scenarios for CMIP7 which ones would you use?

- SSP119
- SSP126
- SSP434
- ssp534-over (RCP3.4 overshoot scenario branching from SSP58.5)
- SSP245
- SSP460
- SSP370
- SSP585

4. If you could set only one priority to improve the CMIP6 Tier 1 simulations (ssp585, ssp370, ssp245, ssp126) where would you set it?

- higher resolution climate simulations
- one new scenario (please specify)
- extent scenarios to 2300
- more detailed socio-economic background
- addition of ensemble members to individual scenario climate model runs
- other: …

The next days

- sign the participant list everyday
- put up your poster & upload your presentations in time

Legend:

General session: broad relevance	Break out session: of general interest	Technical break out session: for particularly interested audience	Closed session: upon invitation only

Schedule

Monday 05 June

Time (UTC+2)	
9:00 - 10:00	**Registration**
10:00 - 11:00	Sector meeting: **Lakes** (10:00-11:00)
11:00 - 12:00	Sector meeting: **Water regional** (11:00-12:00)
	Lunch in the mensa (on own costs)
12:00 - 13:30	Sector meeting: **Water global 1** (12:30-13:30)
13:30 - 15:00	**Opening Session** (13:30-15:00)
15:00 - 15:30	Coffee Break and Group Photo (30 min)
15:30 - 17:30	Automatic QA/QC of impact model output (PROCLIAS TG1.2) (15:30-17:30) • High resolution forcing data (PROCLIAS TG1.7) (15:30-17:30) • Sector meeting: **Energy** (15:30-17:00) • Sector meeting: **Labour**
17:30 - 19:00	**Poster Session 1** (Welcome Reception)
19:00	

Sector meeting: **Fisheries** (9:30-13:30)

Tuesday 06 June

Time	
9:00 - 10:00	ISIMIP sector presentation (9:00-10:15)
10:00 - 11:00	Coffee Break (10:15-10:30)
10:30 - 12:00	Presentation of **ISIMIP 3a Simulation results** (10:30-12:00)
12:00 - 13:30	Lunch Break (12:00-13:15)
	Sector meeting: **Forest** (12:45-14:15) • Sector meeting: **Water global 2** (13:15-14:15) • Sector meeting: **Fisheries** (12:15-14:15)
13:30 - 15:00	15 min Break
	Plenary: **Agriculture - Water - Food - Health Nexus** (14:30-15:30) • **Career planning Panel** for Early-Stage Researcher (14:30-15:30) • Country-scale Forest modeling (14:30-15:30)
15:30 - 17:30	**Poster session 2** (Coffee) (15:30-16:30)
	Sector meeting: **Biomes/Fire/Permafrost** (16:30-17:30) • Sector meeting: **Water global 3** (16:30-17:30) • Sector meeting: **Agriculture** (16:30-17:30)
19:00	**Conference Dinner** (Charles Bridge Prague - own costs, registration needed) (19:00)

PROCLIAS Expert elicitation of Heat-Health Action Plans (T3.11) (9:30-12:00)

PROCLIAS Expert elicitation (T3.11) (13:00-15:30)

Wednesday 07 June

Time	
9:00 - 10:00	Sector meeting: **Fisheries 1** (09:00-10:00) • PROCLIAS **WG4:** Outreach (09:00-10:00) • PROCLIAS Expert elicitation (09:00-10:00)
10:00 - 11:00	Presentations from selected **ISIMIP/PROCLIAS activities** (10:00-11:00)
11:00 - 11:15	Coffee Break (11:00-11:15)
11:15 - 12:45	Presentation of **ISIMIP 3b Simulation results** (11:15-12:45)
12:45 - 14:15	Lunch Break (12:45-14:15) — Visit to Brewery in 2 groups
14:15 - 15:00	**Keynote:** Prof. Dr. Keywan Riahi (IIASA) (14:15-15:00)
15:00 - 15:30	Coffee Break (30 min)
15:30 - 17:30	Plenary: **Key risks across sectors** • Sector meeting: **Water Quality 1** (15:30-17:00) • Sector meeting: **Peat** (15:00-17:30)
	Wrap up and Closing remarks (Katja Frieler)

Thursday 08 June

Time	
9:00 - 11:00	Sector meeting: **Fisheries 2** (9:00-11:00)
10:00 - 11:30	Sector meeting: **Water quality 2** (10:00-11:30)
	Lunch in the mensa (on own costs)
13:00 - 14:00	Sector meeting: **Water quality 3** (13:00-14:00)
	Sector meeting: **Fisheries** (11:00-17:00)
13:00 - 18:00	Sector meeting: **Groundwater** (13:00-18:00)

Awards ceremony: great efforts in Direct Human Forcing (DHF) input data creation

Awards ceremony: great efforts in Direct Human Forcing (DHF) input data creation

Land-use
- Edna J. Molina Bacca,
- Miodrag Stevanović
- Louise Parsons Chini
- Jonathan Doelman
- Elke Stehfest
- Michael Wogerer
- Tamás Krisztin

GDP / Population
- Tingting Wang
- Fubao Sun

Growing seasons
- Sara Minoli
- Jonas Jägermeyr
- Christoph Müller

Sea water desalinization / Inter-basin water transfer
- Naota Hanasaki
- Zhipin Ai
- Saritha Padiyedath Gopalan

Dam locations
- Hester Biemans
- David Gernaat

Irrigation Techniques Shares
- Yi Yao

Upcoming awards

- **Green jersey - Best sprinter:**
  "Passed QC in <10sec"

- **Red-dotted jersey - "King of the mountains":**
  Whoever saves us from getting lost in defining the adaptation
  scenarios… whatever it takes…

- **Yellow jersey, "Overall classification leader"**
  First complete set of group III simulations

The next hours… until the welcome reception…

15:00 - 15:30	Coffee Break and Group Photo (30 min)			
15:30 - 17:30	Automatic QA/QC of impact model output (PROCLIAS TG1.2) (15:30-17:30)	High resolution forcing data (PROCLIAS TG1.7) (15:30-17:30)	Sector meeting: **Energy** (15:30-17:30)	Sector meeting: **Labour** (15:30-17:00)
17:30 - 19:00	**Poster Session 1** (Welcome Reception)			

Next Presentations
TG1.1: ISIMIP 3b Land use patterns (Edna Mollina Bacca)
- TG3.11: Expert elicitation of Heat-Health Action Plans (Aleš Urban)
- TG1.7 High resolution climate forcing data (Johanna Malle)