Debriefing slide WP3-NA2-Users

Eric Guilyardi and Janette Bessembinder

Work progress - Main achievements

- **Task 4: User feedback and requirements**

- Collected from Impact schools, short trainings, workshop on Indices, etc.
- User feedback used for further development ICCLIM, ESMValTool data in Climate4Impact (other WPs), for 2nd and 3rd Impact school, for new short trainings
- Initial requirements on model evaluation by Assimilia and community survey to review the needs and expectations conducted by Assimila
- Presentation EGU “Model evaluation expectations of European ESM communities: results from a survey”
- Community feedback gathered for the collection of ES-DOC CMIP6 Machine and Performance documentation

IS-ENES3 has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 824084

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Work progress - Main achievements

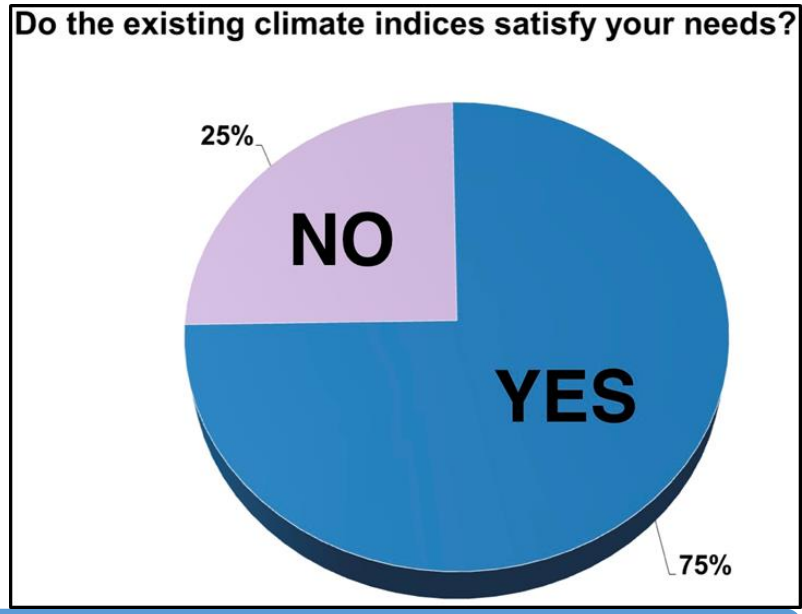
Workshop "Climate indices - Eastern European perspective"

… widening the user base through training, engaging the community in co-constructing standards and expressing needs, and engaging the younger generation in interdisciplinary approaches. Target users climate and VIA researchers.

- **Initial meeting** (May) – 97 registered, E-Europe: 60, 28 countries
- **Online survey** (Jun) – 32 participants from 19 countries (E-Europe: 25; W-Europe: 7)
- **Online interviews** (Jun/July) – 6 (all from Eastern Europe)
- **Final meting** (September) – 32 participants

<u>Covered topics:</u>

- Indices definitions
- Data sources and calculation practices
- Software (calculation and visualization)
- Indices application
- Gaps, needs, recommendations



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Work progress - Main achievements

Workshop "Climate indices - Eastern European perspective"

- Standardisation of indices naming and calculation needed, also good metadata/documentation
- Especially indices related to temperature and rainfall/drought used
- More sector specific indices, since indices used a lot for impact/risk/vulnerability assessments (esp., agriculture, water, health, but also several other sectors), including indices based on several climate variables
- Indices on extreme events (more extreme than once per year)
- Flexible tool(s) to calculate indices (new versions of ICCLIM include many of the desired options)
- Besides indices based on gridded data also need for indices based on station data
- Percentile based indices, but also with fixed thresholds
- Improvements needed especially in availability and access to climate data, quality control, longer time series
- Practical training in (new) tools: CDO, ICCLIM, etc. (R and Python used a lot), but also on visualization software, data access, application (e.g. training for Romania and surrounding countries planned)
- Benchmark datasets?

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Work progress - Main achievements

Schools on "Climate data for impact assessments"

- Due to COVID-19 face-to-face schools of 1 week each converted to virtual schools
- 3 virtual schools with 20 persons each instead of 2 face-to-face schools with 30 persons each
- 2 meetings/webinars per week during virtual schools

Week 1	Week2	Week 3	Week 4-6
(Day 1)	(Day 2)	(Day 3)	(Days 4-5)
Climate models, CMIP, downscaling ESMValTool Climate data sources Climate indices Uncertainties, ensembles	Impact modeling approaches Impact studies agriculture/forestry Impact studies water Climate services Climate data portals	Case study explanation Climate4Impact portal	Case studies Questions Interactive session ongoing work Evaluation

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2nd General Assembly
4-6 October 2021
Virtual

Work progress - Main achievements

Schools on "Climate data for impact assessments"

- Combination of climate and impact researchers appreciated
- Impact researchers less familiar with NetCDF, programming: more step-by-step guidance needed
- Blended courses preferred by many: face-to-face has advantages, but online too

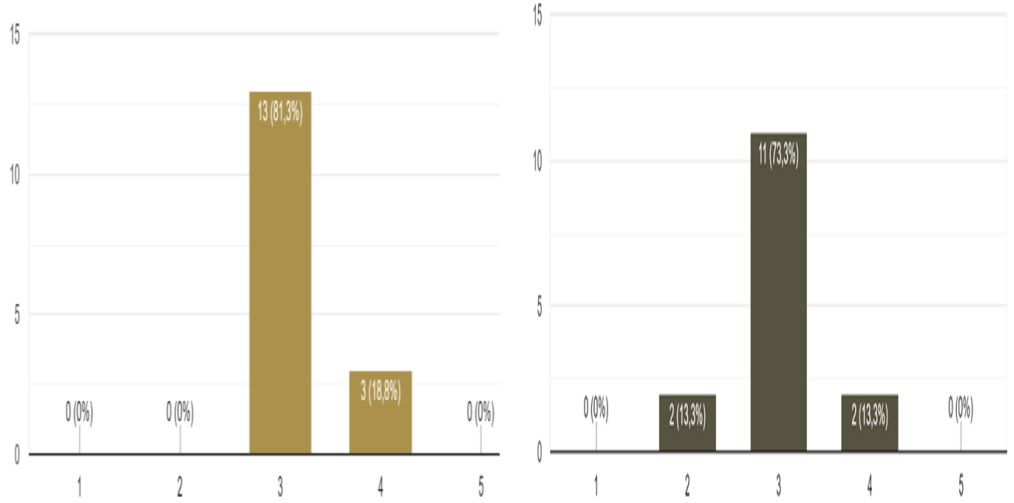
One school not enough to learn how to use climate data

- Follow-up meeting, Linked-In group, at conferences, ….
- Continued support by members of the IS-ENES3 project
- Further short webinars- or workshops
- Practical step-by-step examples/case studies

Additional practical training

- How to select climate model runs (info from ESMValTool in Climate4Impact may be very helpful)
- Bias-adjustment and downscaling
- Tools like CDO, ICCLIM, Climate4Impact
- Tutorial on programming languages (available on internet)

Was the school too easy (1), too difficult (5), or just about right (3)?



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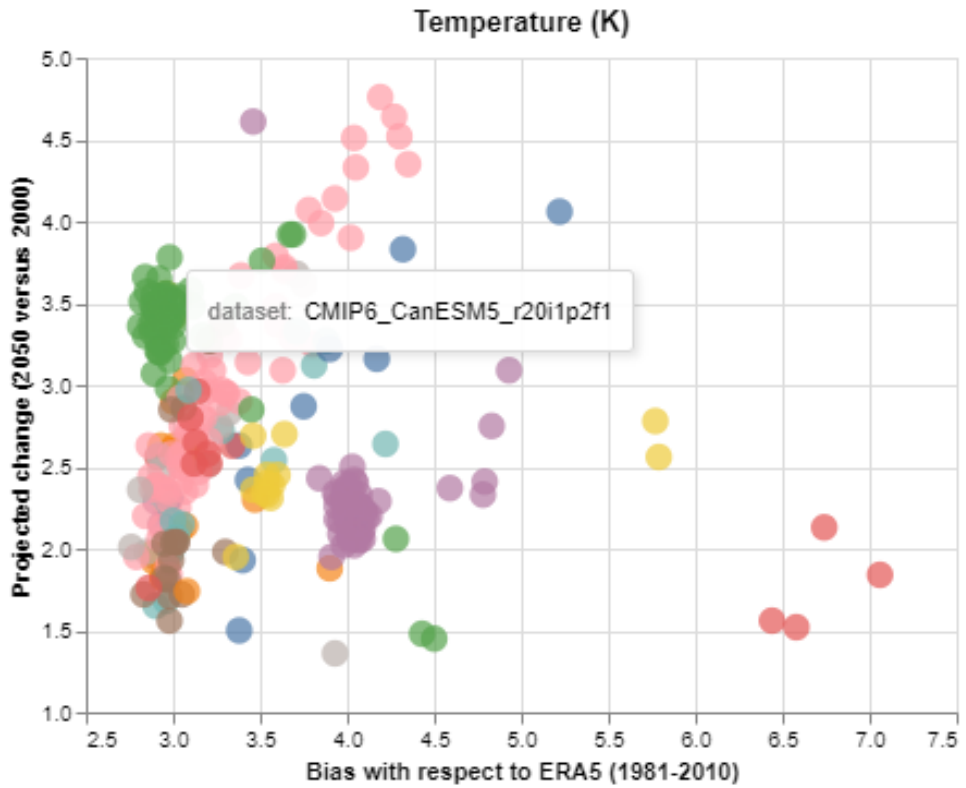
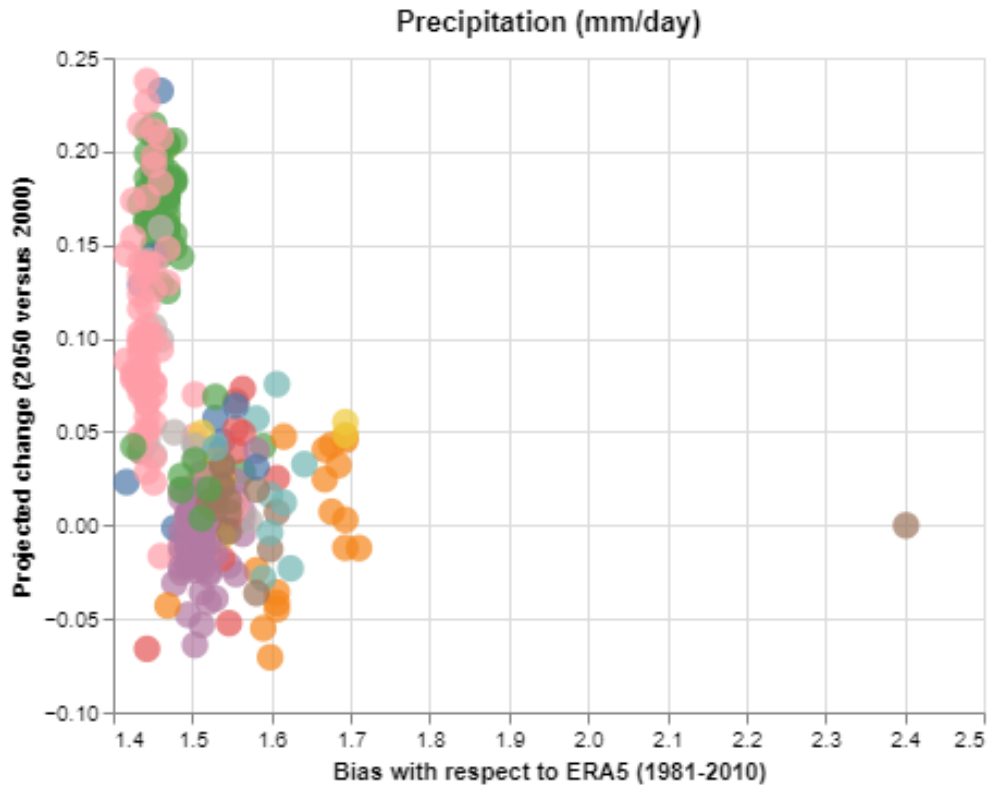
Work progress - Main achievements

Making ESMValTool info available through Climate4Impact

- How to select climate model runs? Information on bias and change per region can help in selecting model runs
- Pilot version





Project_project CMIP6

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Work progress - Main achievements

Short trainings/webinars

- To increase the use of the data, standards, tools developed by IS-ENES projects
- To broaden the network

- Possibility to organize tailored short training (0.5 to some days) at universities, institutes
- For partners, but also for students and others outside the partner institutes
- Discussion on this on Wednesday October 6 in the afternoon

Planned/ideas

- On bias adjustments (October 14 – 21, 2021)
- On CDO/ICCLIM and climate data (June/July 2022, Romania; something similar in Czech Republic?)
- New version of the Climate4Impact portal
- ESMValTool
- …….

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