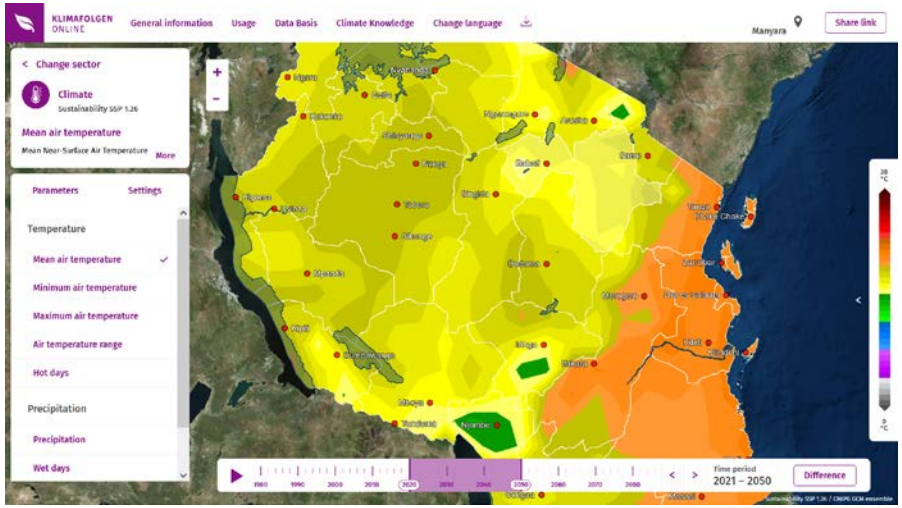
ClimateImpactsOnline:
Interactive Climate Information for Tanzania



Thomas Nocke, Mechthild Becker

Potsdam Institute for Climate Impact Research

EPICC Project Closing Workshop 2022:

Strengthening Resilience Against Climate Change

22nd - 23rd June 2022, Dar es Salaam, Tanzania

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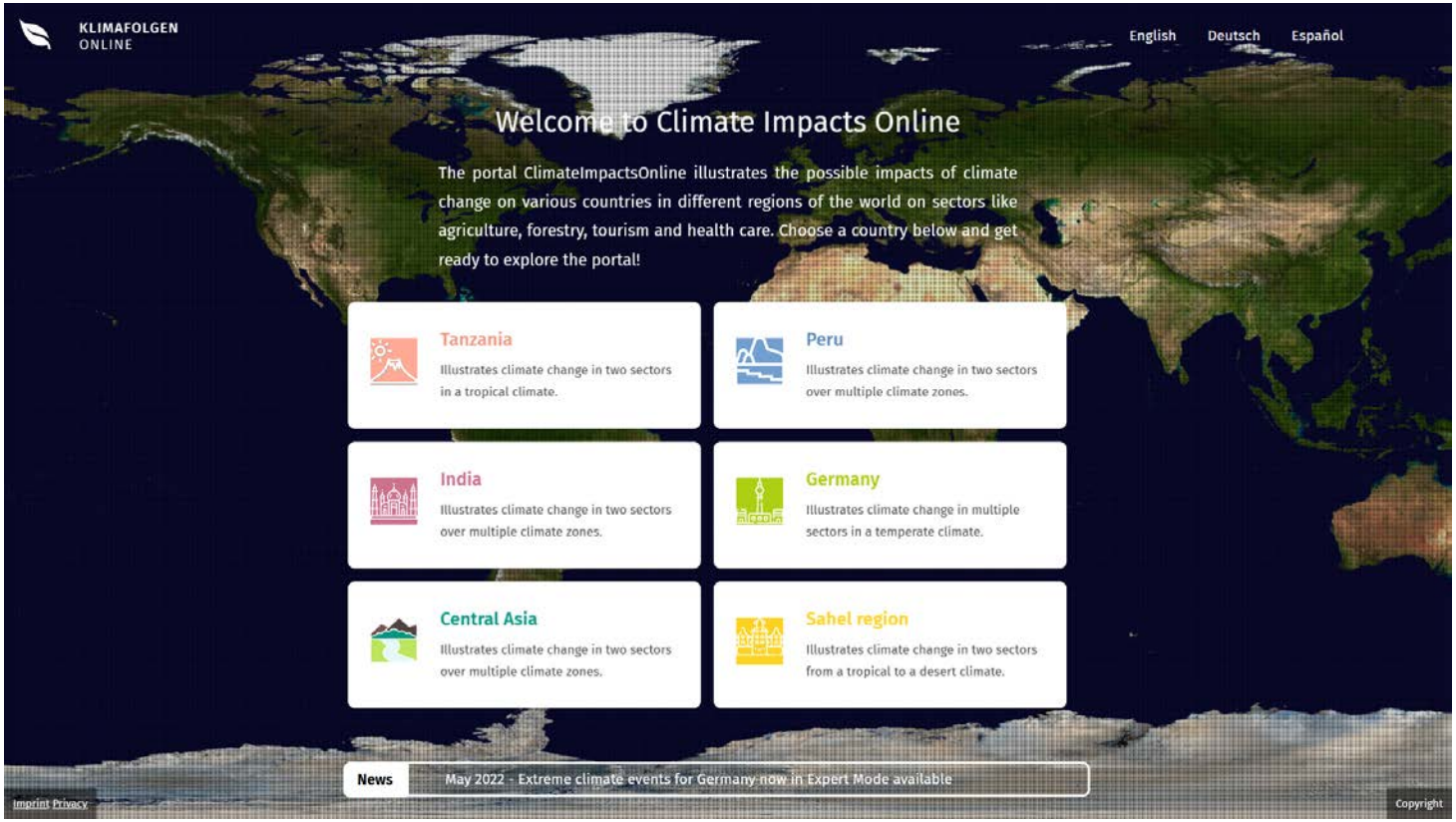
Visualization strategy



Development of an integrated web portal
for multiple regions, including Tanzania and the Sahel

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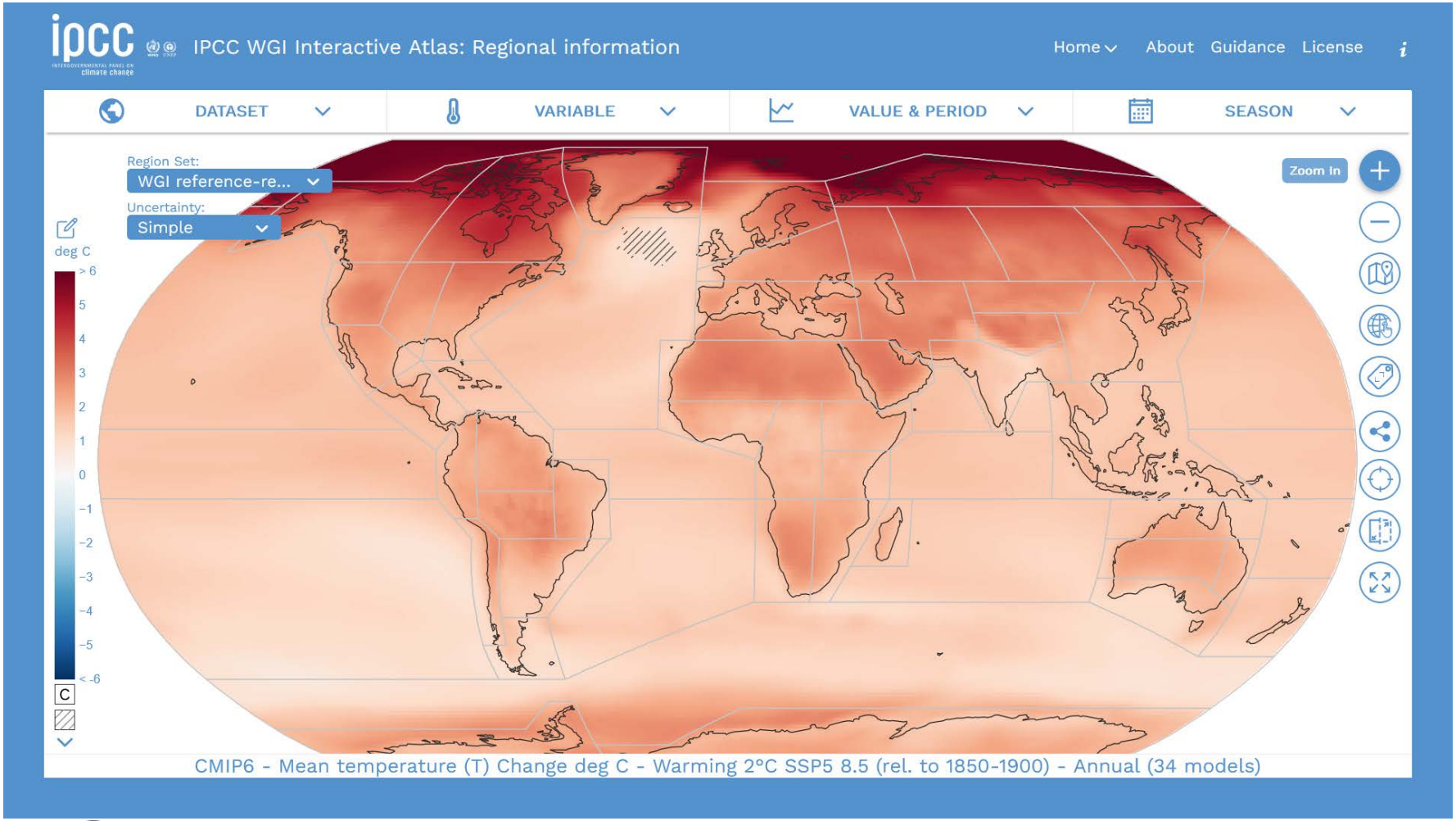
Learning from alternative solutions (1)

IPCC WG1 Interactive Atlas - interactive-atlas.ipcc.ch



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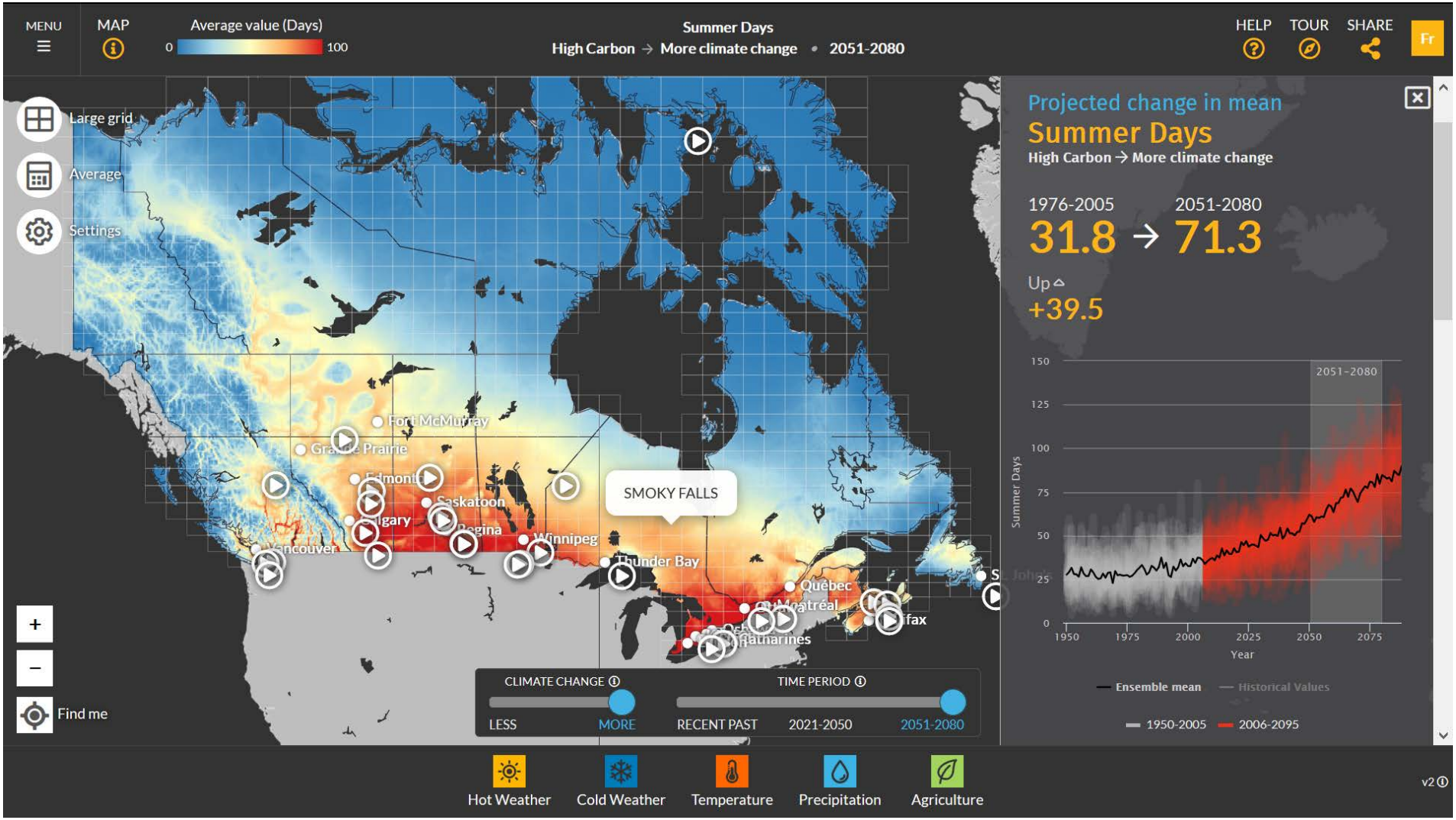
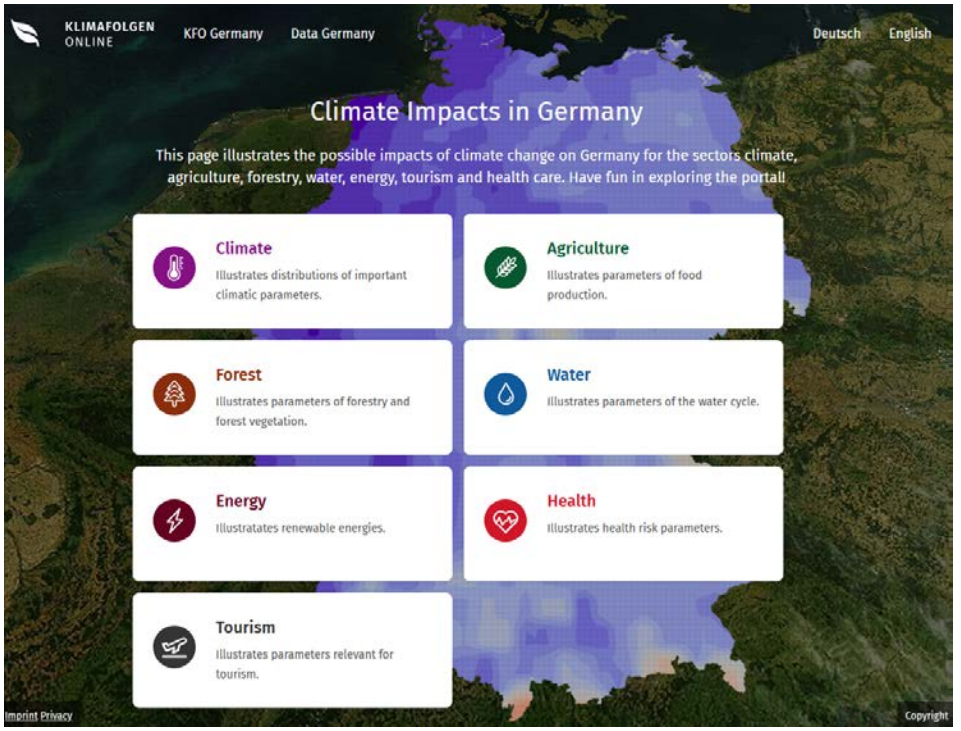
Learning from alternative solutions (2)

Climate Atlas of Canada - climateatlas.ca

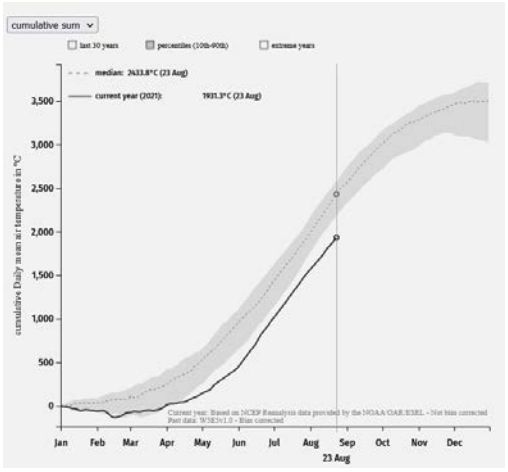


Visualization concept for the new ClimateImpactsOnline web portal (1)

Integration of multiple regions / countries



Multiple impact sectors



Interactive infographics

Hands-On user workshops in the target regions

Visualization concept for the new ClimateImpactsOnline web portal (2)

- **Integration of established data from multiple data sources and time frames**
  - **historic (observation & simulation), current situation, forecast and projection data; seasonal data**
  - **W5E5, ISIMIP3b, CORDEX, NCEP Reanalysis, Impact model data (SWIM, 4C), soon as well country/region specific data products**
- **Flexible data handling to facilitate the calculation of new sectors, countries and languages**
- **Provision of flexible, hierarchical regional aggregates**
  - **diagrams & tables for administrative units, protected areas, …**

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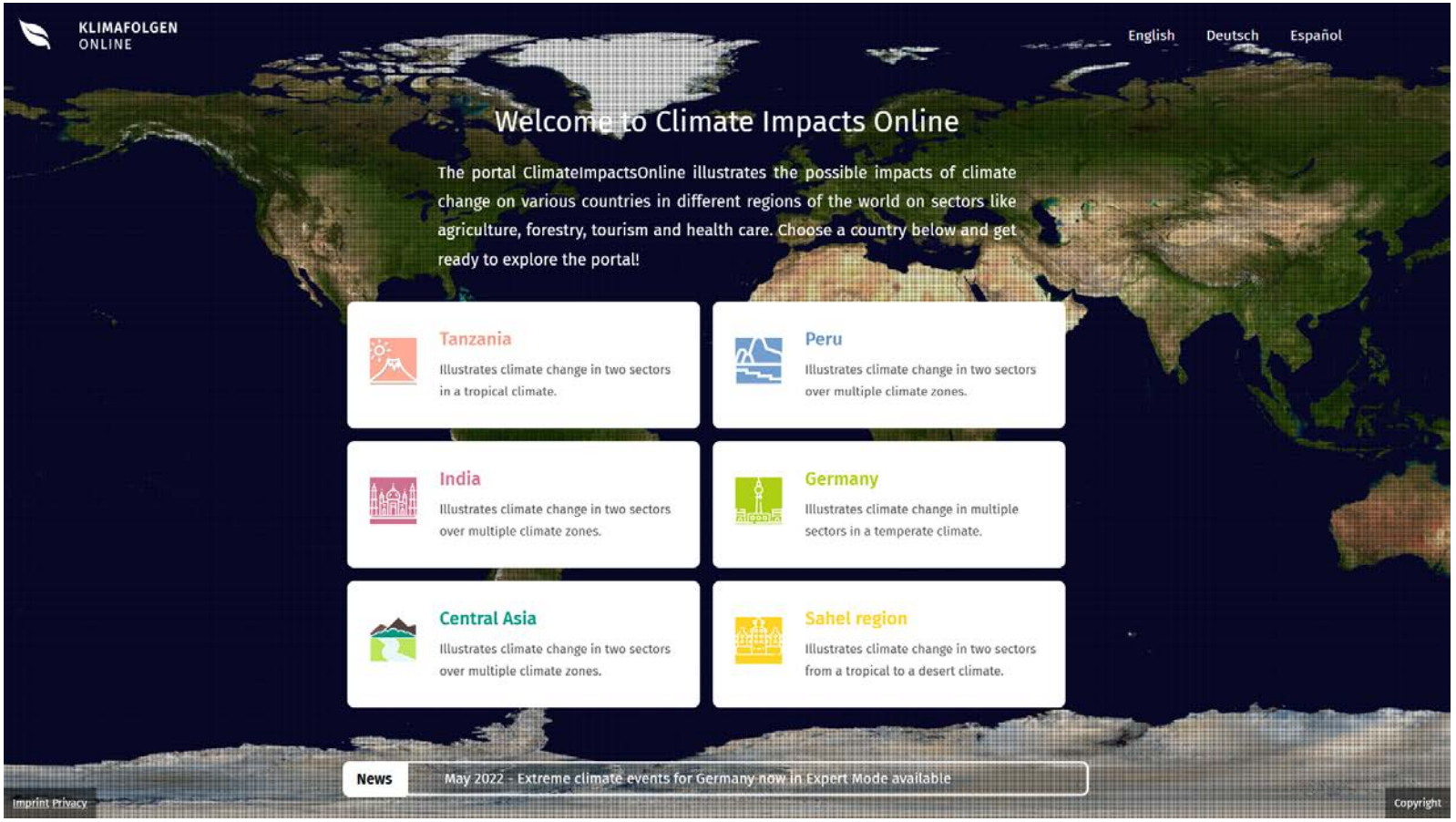
ClimateImpactsOnline web portal – Extended start page



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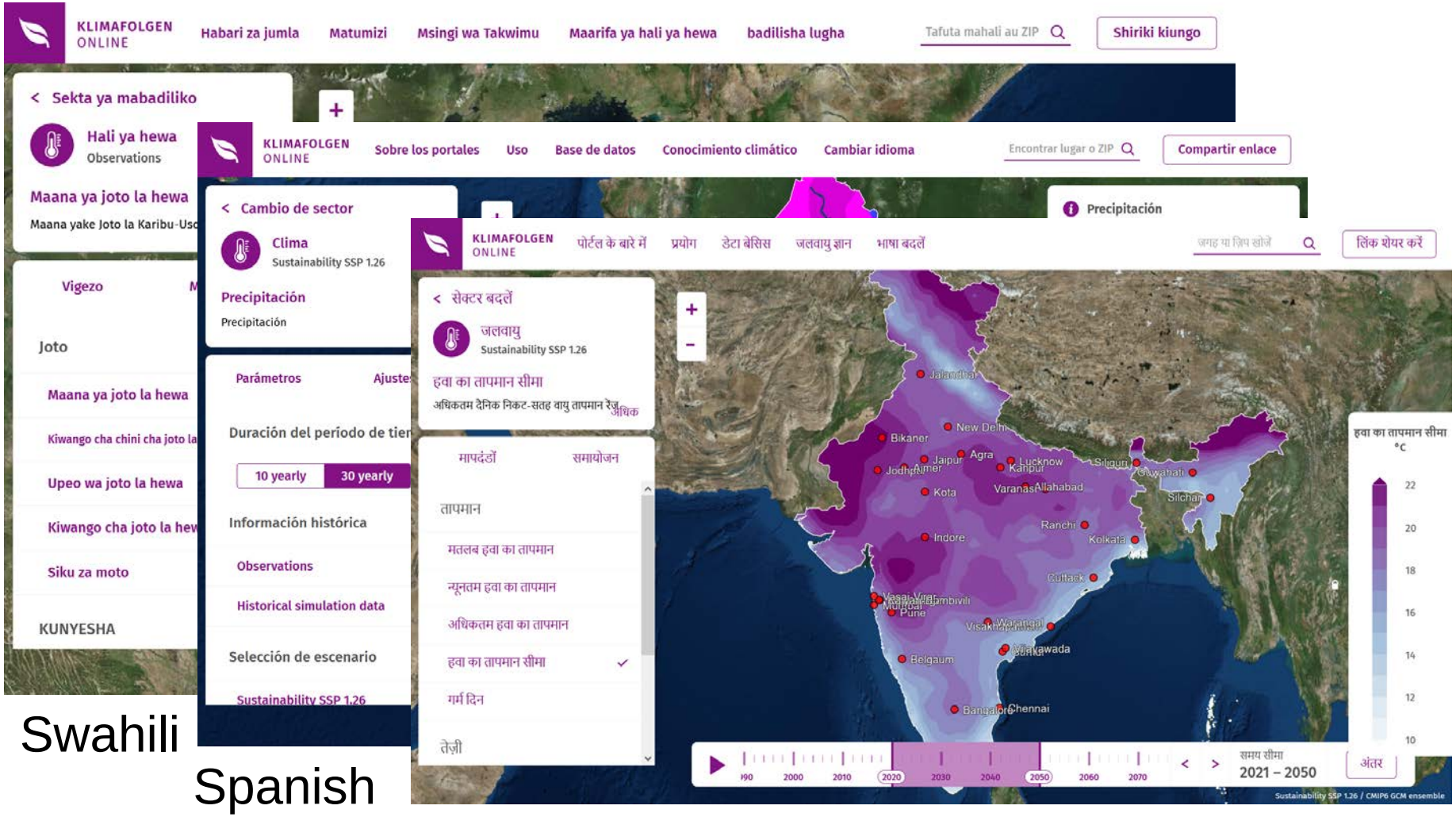
Automatically translated country-specific languages



Swahili

Spanish

Hindi

Text improvements by (local) native speakers

Flexible seasonal data available

✕ Close 2021 – 2050 Kilosa

Temperature > Mean air temperature Decadal | Table | Daily

Parameter		Dry season	Pre-rain season	Rainy season	Post rainy season
Mean Near-Surface Air Temperature [°C]	23.89	25.27	24.17	22.4	25.72
Maximum Near-Surface Air Temperature [°C]	35.66	33.93	33.59	33.54	35.41
Minimum Near-Surface Air Temperature [°C]	12.82	19.07	16.12	12.82	18.4
Maximum Daily Near-Surface Air Temperature Range [°C]	16.81	13.29	14.43	16.53	15.37
Precipitation [mm/year]	998.21	257.04	461.78	70.82	184.49
Annual number of hot days [d]	171.75	-	-	-	-
Number of wet days [days]	110.54	-	-	-	-

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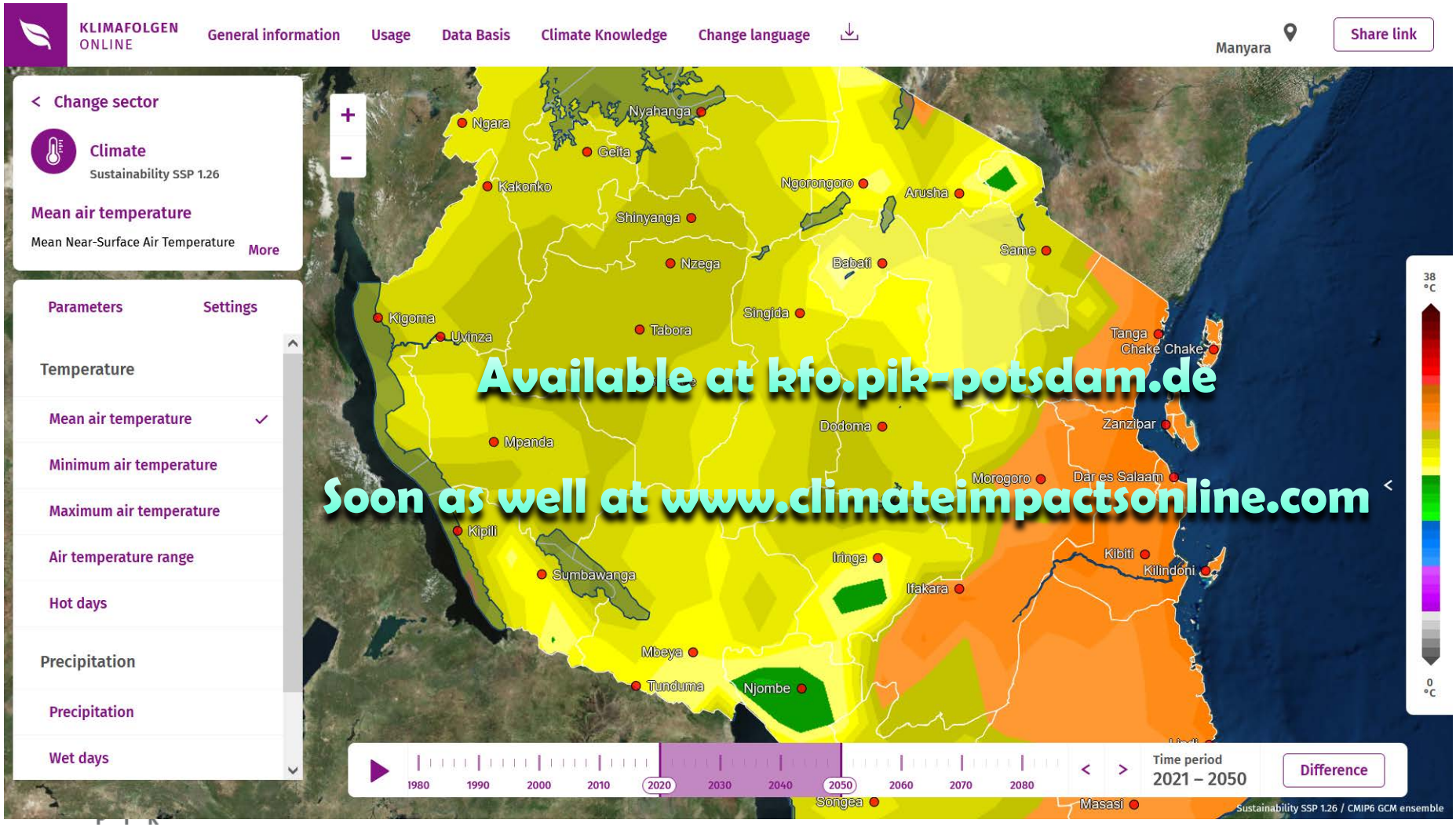
Implementation of a flexible season system handling country specific seasonality

ClimateImpactsOnline web portal – Country map view



Feedback from User Workshops (1)
Tanzania & Peru

Questions

- What is the applicability? How can it be used by the general public?
- What are the requirements for hosting?
- Is the inclusion of the portal on the local partner's websites possible? Is it interoperable?
- Will a smartphone / tablet version be provided in local people's interest?
- Will the data be frequently updated?

More guidance requested

- training for the platform (e.g. videos)
- short information for non-experienced user
- improved explanation of historical and future data
- transparency on data sources and their quality

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Feedback from User Workshops (2)
Tanzania & Peru

New functionalities demanded

- Data
  - multiple concurrent data sources, in particular local sources (e.g. precipitation data for Peru, El Niño predictions)
  - seasonal breakdown of the year (monthly, drought period)
  - new parameters (renewable energies, socioeconomic data (migration data, population …)
  - new regions to select (rainforests, mountains, costal areas, indigenous territories, more agricultural and ecological regions); certain protected areas are missing
- Graphical user interface / functionality
  - download option for data and diagrams
  - multiple windows for easier comparison of regions or scenarios

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Next steps / future work

Publication

New regions

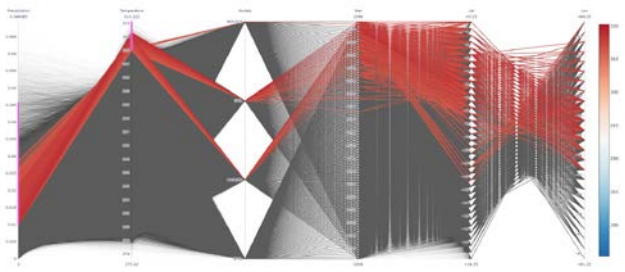
- Ethiopia / Brazil (EPICC-B)

New / updated data sets

- update data Germany
- extreme event data (ClimExtreme project)
- hydrological and agricultural simulation data for all regions based on the ISIMIP3 project (as well for Tanzania)

Explorative views

- extension as an explorative tool



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Questions for ClimateImpactsOnline in Tanzania

- Is data speed all over Tanzania sufficient for ClimateImpactsOnline?
- Which devices would we have to support in Tanzania?
- Which additional data sets should we integrate?
- Should we integrate more protected areas?
- Would further/other presentation techniques be helpful (e.g. monthly climate charts)?
- Is there a person/institute who would like to cooperate with us, e.g. who would like to provide their own parameters/indicators, help edit texts or even host the portal in Tanzania?

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Thank you! Questions?

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