Potsdam Institute for Climate Impact Research

ISIMIP Inter-Sectoral Impact Model Intercomparison Project

ISI-PEDIA: THE CLIMATE IMPACTS ENCYCLOPEDIA

Making impacts science accessible

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Coordinated at **PIK RD II**
Climate Impacts & Vulnerabilities

KEY AIM

- **create an online platform, isipedia.org, which will offer guided access to the ISIMIP climate-impact simulations**

KEY FEATURES

- regional impact assessments based on ISIMIP data
- modelling challenges in particular regions
- Selected data visualisations

PROJECT FACTS

- Starts 09/2017, runs 3 years. Funded through EU JPI Climate

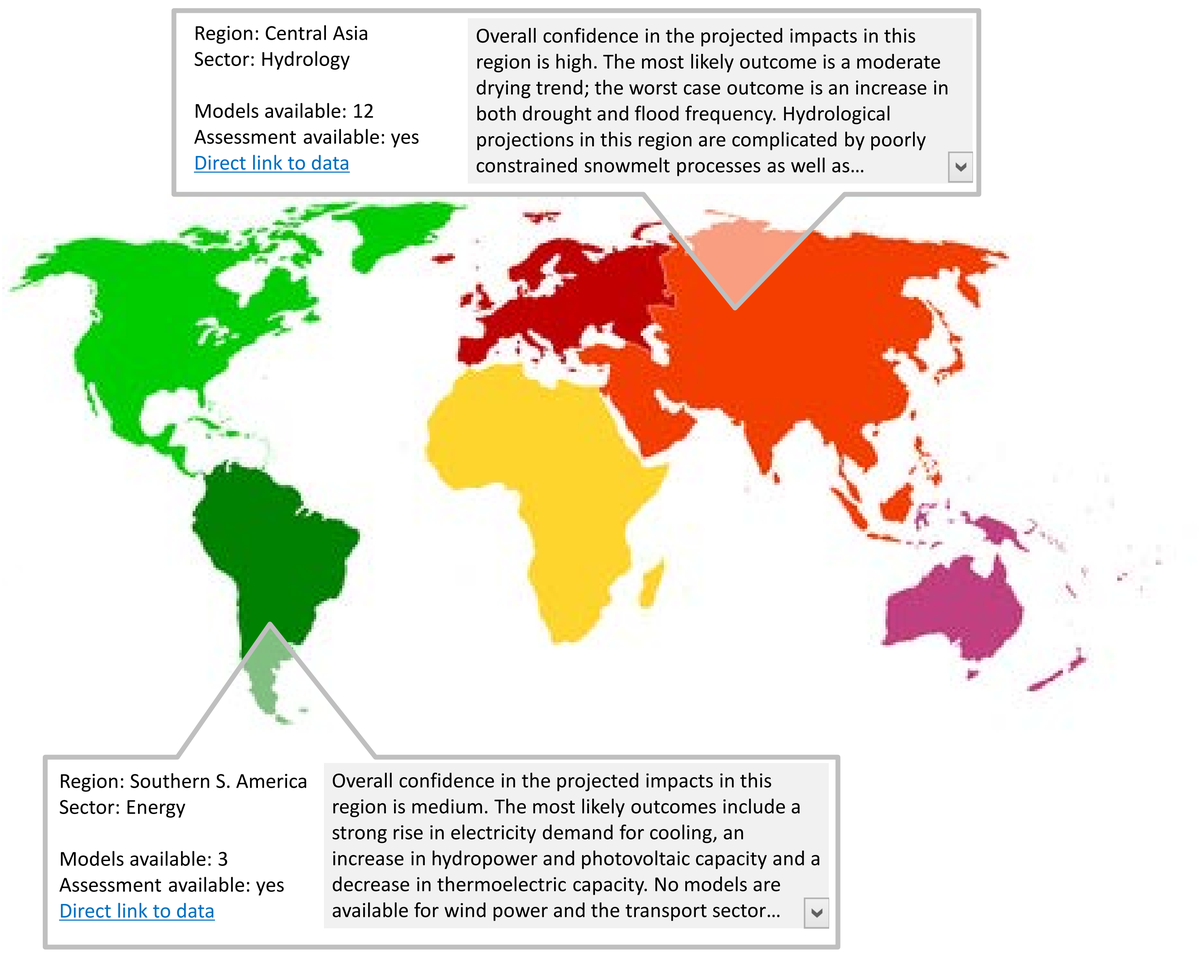

Figure 1 *Simplified illustration of ISIpedia online platform*
(Text is exemplary and not based on actual results. Background image: gifex.com)

STAKEHOLDER ENGAGEMENT

Stakeholders from science and policy at various levels will be involved at different stages throughout the project - in particular:

- Decision on ISIMIP3 focus topic
- Co-development of climate-impacts indicators
- Design of ISIpedia platform, user tutorials

Regional stakeholder workshops will be held in West Africa and Europe. In addition, a worldwide online survey will be conducted.

User Scenario 1. Researcher: A climate impacts researcher is interested in investigating projected changes in frequencies of natural disasters in south-east Asia under global warming. She would like to use the output from different impact models for a cross-sectoral risk assessment.

ISIpedia climate service: Using isipedia.org, the researcher selects the south-east Asia region and indicates she is a climate impacts scientist, which determines the level of technical detail. She selects her sector of interest (water, agriculture, health) and is presented with a summary of the models offering impact projections in this region and visualisation of key impacts variables for all models, through which she immediately gets a first overview of the model results in this region. Visualisations of key climate indicators for south-east Asia offer early clues for sources of uncertainty and trends. The scientist finds instructions on how to download the full simulation data, and is given access to a database of impact model characteristics. She is also presented with a list of existing publications addressing the selected impacts in this region. For each data set selected she also gets access to individual performance parameters regarding the representation of observed impacts in the historical period.

User Scenario 2. National Adaptation Planner: A government official involved in the development of a National Adaptation Plan for the Senegal needs a synthesis of projected climate impacts in Senegal for politically relevant climate-change scenarios.

ISIpedia climate service: By selecting the West Africa region on isipedia.org, the adaptation planner gains access to a cross-sectoral assessment of projected climate impacts covering Senegal in the form of both text and visualization of key indicators, such as the 'number of people affected by water shortages', or 'fraction of national food supply fulfilled' for climate scenarios associated with e.g. the 1.5°C or the 2°C target, or business-as-usual. The indicators have been co-developed with user groups, ensuring that they are relevant and comprehensible to a non-expert in climate impacts. The adaptation planner also gains an understanding of how well impacts models can reproduce historical impacts in Senegal and where are the major information or knowledge gaps restricting the reproduction of historical conditions. The user is invited to contact the ISIpedia editorial team to potentially fill information gaps if adequate data is available.. ISIpedia is structure to engage users and stakeholders in both the design and production of climate-impacts information. The consortium partners include two organisations (Climate Analytics and Climate Adaptation Services) with extensive experience engaging non-scientific audiences on topics related to climate-change impacts. Their expertise and established networks will be harnessed to ensure that the needs of stakeholders are translated into achievable scientific goals, and that the research results are in turn made accessible to the stakeholders.

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