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PROPOSALS FOR EXPERT MEETINGS AND WORKSHOPS FOR THE SEVENTH ASSESSMENT CYCLE

Expert meeting on Regional Climate Information & Atlas

(Prepared by the Co-Chairs of Working Groups I and II)

(Submitted by the Secretary of the IPCC)



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Expert Meeting on Regional Climate Information & Atlas

Rule 7.1 on IPCC Workshops and Expert Meetings in the Appendix A to the Principles Governing IPCC Work establishes, inter alia, that "IPCC Workshops and Expert Meetings are those that have been agreed upon in advance by an IPCC Working Group, or by the Panel as useful or necessary for the completion of the work plan of a Working Group, the Task Force on National Greenhouse Gas Inventories or a task of the IPCC. Only such activities may be designated as "IPCC" Workshops or Expert Meetings. Their funding should include full and complete provision for participation of experts from developing countries and countries with economies in transition. [...]

An IPCC Expert Meeting focuses on a specific topic bringing together a limited number of relevant experts. The relevant Working Group/Task Force Bureaus, or the IPCC Chair, will identify and select participants to Expert Meetings."

The development of the AR7 Working Group I (WGI) and Working Group II (WGII) Interactive Atlas (iAtlas) require coordination and are envisaged to be using a shared technical design and online platform. In addition, while WGI iAtlas will build upon the AR6 iAtlas, the development of the WGII iAtlas requires additional scoping of its content and structure, as it is being developed for the first time.

During the period between the First and Second Lead Author Meetings, it is envisaged, in each Working Group, a regionally balanced team of authors to design the concept of their respective iAtlas'.

After this design phase, it is planned to convene the iAtlas author groups, and the scientific and technical external experts in order to give guidance on the operational development of the tool. For this, the Co-Chairs of WGI and WGII are proposing an Expert Meeting on "Regional Climate Information & Atlas", to be held during the second quarter of 2026. The proposal for this Expert Meeting has been prepared jointly by the Co-Chairs of Working Groups I and II.

Proposal for an IPCC Expert Meeting on Regional Climate Information & Atlas

1. Context

In the last 10 years, the development of regional climate information has considerably grown, with an increasing granularity. This was also accompanied by the development of climate services using commonly accessible observations and projections to help design tailored climate information (see, e.g. AR6 WGI Chapter 12, Section 12.6). While the main body of the IPCC Report can only provide syntheses, more detailed regional climate information was made available in AR5 and AR6 cycles through digital platforms maintained by external organizations supported by in-kind governmental support.

The IPCC AR6 iAtlas, publicly accessible since the approval of the AR6 WGI Report, has used up-to-date digital technologies, allowing the user to visualize observations and projections in the form of maps or graphs, and to access the underlying data. It was technically developed thanks to the support of the Spanish Government, through in-kind participation of contributing authors, while content was decided by the WGI Authors. The AR6 WGI Report also included a Chapter Atlas supporting the description of the iAtlas, its data and methodologies, and also the development of specific statistics.

The AR6 iAtlas has been widely used by a broad audience ranging from science communicators, educators, and scientists to policymakers and journalists. Its reach and impact were evident from the very beginning: during the first month after its launch, it attracted more than 560,000 users from over 230 countries, with a peak of more than 12,700 users per hour. In 2025, the Atlas continues to demonstrate its relevance, with 4,700 users from 126 different countries and an average session duration of 1 minute and 21 seconds. These figures underscore both the initial success of the platform and its sustained use by diverse communities worldwide. Most visitors focused on regional information, spending the most time on key content pages, while support requests were minimal. This demonstrates both the Atlas's reach and the clarity of its resources. Support inquiries were few, focusing mainly on accessing datasets and understanding Atlas features.

In AR7, the WGI iAtlas would encompass similar information to that provided in the WGI AR6 Interactive Atlas, evolving in alignment with AR7. By structuring the Atlas as an **Annex**, it does not contain assessment material but supports the assessments presented within the chapters. The Annex Atlas would, therefore, contain only a **descriptive section**, describing the content of the **Interactive Atlas**. Additionally, it would provide an explanation of how the **Interactive Atlas** connects with the chapters to expand on their information (e.g., seasonal variations, time periods, etc.). The WGII iAtlas is scoped to develop inter- and intra-regional mapping of hazards, vulnerability, exposure, impacts, risks, adaptation, and responses to losses and damages. A further refinement of this scoping is carried out by designated (Coordinating) Lead Authors, resulting in a conceptual design of the WGII iAtlas by Q1 2026.

An Expert Meeting is necessary to determine the technical design by joint exploration of options, design principles and constraints by authors involved in the design of both Working Groups' iAtlas', TG-Data members, experts of existing digital atlas portals and technical experts supporting the AR7 iAtlas development. Apart from a translation of the provisional conceptual Working Group-specific iAtlas designs into a technical blueprint, this meeting will develop the contours of an implementation plan.

2. The AR6 WGI Atlas

The AR6 WGI Interactive Atlas was developed during AR6 as part of the Atlas chapter, in consultation with other chapters to facilitate flexible synthesis information for regions, and to support the Technical Summary (TS) and the Summary for Policymakers (SPM), as well as the handshake with WGII. It includes multiple lines of evidence to support the assessment of observed and projected climate

change by offering information for regions using both time slices across scenarios and Global Warming Levels (GWLs). Coordination has been established with other WGI chapters (particularly the regional chapters), adopting their methodological recommendations and using common datasets and agreed extreme indices and climatic impact-drivers (CIDs) to support and expand their assessment.

The tool includes two components.

The first component (Regional Information) allows for flexible spatial and temporal analysis with a predefined granularity (predefined climatological and typological regions, and user-defined seasons) through a wide range of maps, graphs and tables generated in an interactive manner building on a collection of global and regional observational datasets and climate projections. In particular, the Interactive Atlas provides trends and changes for observations and projections in the form of interactive maps for predefined historical and future periods of analysis, the former including the recent past and paleoclimate and the latter including future time slices (near, medium and long term) across scenarios (RCPs and SSPs) and GWLs (1.5°C, 2°C, 3°C and 4°C). It also provides regional information for several predefined (reference and typological) regions in the form of time series, annual cycle plots, scatter plots (e.g., temperature versus precipitation), table summaries, and ensemble and seasonal stripe plots. This allows for a comprehensive analysis of the different datasets on a global and regional scale.

The second component of the Interactive Atlas (Regional Synthesis) provides synthesis information about changes in CIDs in several categories such as heat and cold, wet and dry, or coastal and oceanic, supporting exploration of the regional assessment findings summarized in the TS and the SPM. (Gutiérrez, et al. 2021: Atlas. In *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, doi: 10.1017/9781009157896.021.)

The AR6 WGI Interactive Atlas can be consulted online at http://interactive-atlas.ipcc.ch.

3. Plans for the AR7 Atlas in WGI and WGII

The AR7 outline of the WGI Report mentions, as an Annex, the WGI Atlas. The WGII mentions, as Annex I, "Atlas", with one bullet "Inter- and intra-regional mapping of hazards, vulnerability, exposure, impacts, risks, adaptation, and responses to losses and damages". Since the agreement of the outlines in February 2025, discussions have taken place on the implementation of a potential joint WGI-WGII Atlas.

Experts at the Scoping Meeting emphasized the added value of ensuring strong alignment between the WGI and WGII Atlases. While each Working Group will develop its own Atlas content independently, efforts are underway to foster coordination, promote alignment where appropriate, and explore opportunities for synchronization. These refer to both content (data layers that are complementary) as technical (technical hosting operated jointly to allow cross-Working Group consultation and user experience).

Each Working Group will form a core Atlas team from their pool of (C)Las. These teams will be in charge of shaping the Atlas content from the material of the chapters. In addition, a **Liaison Group** is formed, composed of the Atlas coordinators, technical service managers, TSUs in charge of the Atlas, TG-Data representatives, and ad hoc invitees when relevant (e.g. the IPCC Legal Officer, occasional technical experts, etc.), tasked with coordinating the technical aspects between the two Atlases.

The envisaged timeline of the Atlas development process until LAM2 is as follows:

 Ahead of LAM1 (by end of Nov 2025): WGI and WGII form their respective authors core teams and start discussing concepts

- At LAM1 (Dec 2025): further WGI and WGII discussions on concepts, and cross-Working Group coordination meetings take place to discuss potential shared design and how to coordinate
- By March 2026: conceptual designs in each Working Group
- April-June 2026: Expert meeting on shared design and implementation
- July and Sep 2026: prototype to be reviewed together with the FOD of WGI and WGII

4. Goals and the expected outcomes

The goal of this Expert Meeting is to support the transition from conceptual design to technical implementation of the AR7 WGI and WGII Interactive Atlases. The meeting is necessary to jointly explore options, design principles, and constraints, ensuring that the discussion reflects the full range of perspectives required for a robust design. In addition to translating the provisional Working Group-specific conceptual designs into a technical blueprint, the meeting will also provide an opportunity to clarify how conceptual differences between the two Atlases can be aligned, and how technical development can best support a coordinated approach. It will further aim to develop the contours of an implementation plan that is both coherent across Working Groups and feasible within the time and resource constraints of AR7

The meeting is expected to deliver several concrete outcomes. These include: (1) presentation and discussion of the WGI and WGII conceptual designs and associated data screening processes, accompanied by technological proof-of-concept prototypes that go beyond the design stage; (2) consideration of lessons from other digital atlas platforms, including how they navigated conceptual design, data selection, technical implementation, and user interaction; (3) active working sessions to transfer conceptual design into technical specifications, with attention to harmonization and interoperability between the two Atlases; and (4) the drafting of preliminary contours of a coordinated implementation plan. Together, these outcomes will provide the basis for moving from ideas to practice, ensuring that the AR7 Interactive Atlases are technically sound, conceptually coherent, and ready for coordinated development in the next phase.

5. Participation

We are proposing that 60 experts attend the Expert Meeting, with gender, regional and expertise balances duly accommodated. The following groups of participants are expected:

- Authors from WGI (estimated 20)
- Authors from WGII (estimated 20)
- Experts of similar digital atlas portals (estimated 5)
- Technical developmental in-kind support experts from external organizations (estimated 5)
- TG-Data and Data Distribution Center members (estimated 10)

In addition, members from the WGI and WGII TSUs are expected to participate.

6. Timing and organization of the Expert Meeting

We propose that the Expert Meeting takes place during the second quarter of 2026 before or shortly after LAM2, over two days.

Steering Group

A Scientific Steering Committee (SSC) comprising IPCC Working Group I and II Bureau members and additional external experts will develop the program of the Expert Meeting, prepare a list of invited experts for agreement by the WGI and WGII Bureaus, and lead in compiling the meeting's output report.

Hosting

The Co-chairs are seeking a host for this Expert Meeting.

7. Budget and Funding

The Co-Chairs suggest the addition of a budget line to the 2026 IPCC Trust Fund budget for an Expert Meeting on Regional Climate Information and Atlas. The requested provision is an increase in budget of CHF 140,400, which comprises DC/EIT support of CHF 120,000 (30 journeys) and Other expenditure of CHF 20,400.