

46th Session of the WCRP Joint Scientific Committee (JSC)

Date: 12-16 May 2025

Update report for the WCRP Joint Scientific Committee

WCRP Academy

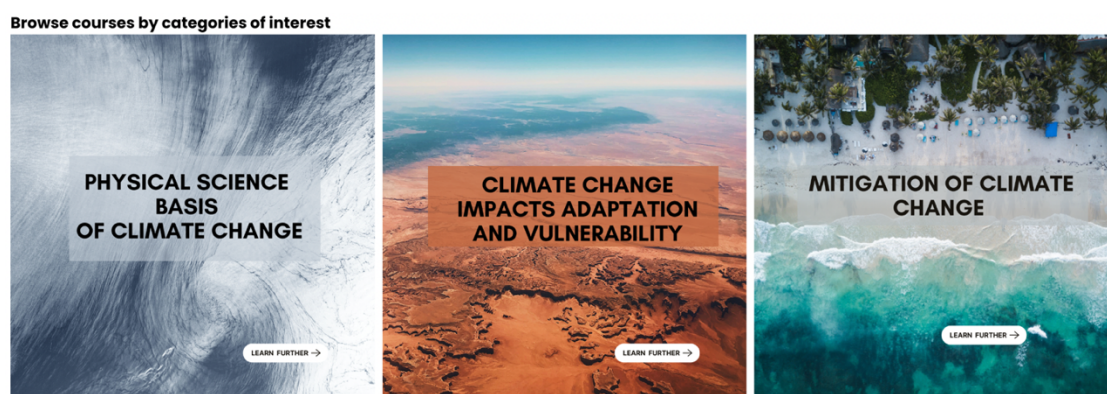
1. High-level publications

- Planned publication of the results of the series of global stocktake surveys conducted by the WCRP Academy from 2021 to 2023. The working title of the paper: "Assessing the training needs of climate scientists: The role of the World Climate Research Programme Academy." The results were also presented at several conferences including the EGU, AGU and International Conference on Southern Hemisphere Meteorology and Oceanography (ICSHMO).

2. Capacity Building/Education and Training Highlights

Online Training Catalogue

Serving as a hub that connects training providers and users of training, the WCRP Academy is building an online catalogue of climate science training. Inclusion in the catalogue denotes that the training is of high quality and, as such, is a legitimate source of training that is targeted to climate scientists. Various training opportunities are available under the following categories, currently patterned after the Working Groups of the Intergovernmental Panel on Climate Change:



<https://wcrp-academy.org/catalogue>

Following the official launch of the WCRP Academy at the 2023 Open Science Conference in Kigali, there are now close to 50 training providers from the Global North and South registered to the website, with the catalogue featuring over 120 training events (both past and upcoming).

3. Linkages with other Core Projects, Lighthouse Activities, Academy etc.

Best practices in climate science training across the WCRP

The Academy is working closely with the International Project Offices of Core Projects (and directly with Lighthouse Activities) in undertaking the systematic documentation of WCRP-led climate science training to identify factors typically considered in organizing and offering climate science in such events, and to highlight key successes and challenges. Various aspects of climate science training are being explored, including content and resources, method of delivery, materials and facilities, costs, and most importantly empowerment and inclusion.

A best practices document will be prepared following this exercise and will be shared widely across WCRP – not so much to serve as a guideline but as a source of inspiration for organizing future training activities.

Mentorship training workshop

This 2025, the WCRP Academy will be running a workshop to discuss various mentoring approaches for shaping WCRP's future leaders and facilitating leadership development. The workshop will gather a small group of participants (from within WCRP as well as external organizations delivering excellent mentoring programs) in Cape Town for a 2-day in-person event. World Cafés, practice sharing talks and other activities will be carried out to explore key questions such as "What has been your experience of mentoring in the WCRP?", "What does an ideal mentor/mentee look like?" and "How can we best incorporate mentoring into WCRP?"

The workshop will be organized in parallel with another event being organized by RiFS/CORDEX in Cape Town on September 8- 11 2025 to maximize opportunity and resources.

EMCR Tiger Team

The Academy has been active in the EMCR Tiger Team and contributed to its final report. Much of what was suggested in the Tiger Team report aligns with ongoing interests, and activities, of the Academy. We suggest that member(s) of the Tiger Team be invited to join the below mentioned Academy Advisory Board, so we can work together in ensuring these activities continue and share much-needed resources.

4. Partnerships with entities outside of WCRP

WCRP Academy Support Unit

The Support Unit of the WCRP Academy was established in 2024 and is hosted by the Manila Observatory, a research institution based in the Philippines specializing in climate and disaster science. The WCRP Academy Support Unit is the first of its kind within the organization, as well as the first to be located in the Global South.

International Universities Climate Alliance

The Academy has established its partnership with the International Universities Climate Alliance (IUCA) which represents almost 50 climate research universities from across 20 countries - all united by a shared vision to accelerate action on climate change. The Academy and IUCA plan to collaborate in any initiatives to reduce duplication and strengthen collective impact.

The Academy and IUCA identified the online space as a productive place for collaboration. Specifically, the Academy will feature IUCA in its quarterly newsletter release to highlight the latter's efforts in climate education and increase their visibility. They also offered the Academy an opportunity to announce any

event or initiative through their newsletter releases. In addition to this, social media platforms such as LinkedIn, will be utilized to share each other's initiatives.

Moreover, IUCA expressed their willingness to work with the Academy in climate education and literacy. In particular, they plan to link the WCRP Academy in the coalition of member climate education courses and climate literacy resources that they are currently developing. This is an excellent opportunity for the Academy to promote registered training events and activities in its catalogue.

Outreach to other potential partners

The Academy had the opportunity to participate in exploratory meetings with different organizations to hopefully identify points for collaboration and partnership by widening the Academy's reach and visibility to potential training providers and training participants.

Some of these organizations include the Department of Climate Change and Environment of Thailand. During the meeting, the need for more climate training that is accessible to emerging climate scientists, especially in the Global South, was discussed. Within Thailand, which other Global South countries similarly experience, challenges exist in ensuring that climate training is de-centered from major universities and research centers toward institutions in the countryside and provinces. The Academy hopes to add climate training offered in Thailand and in the Southeast Asian region to its catalogue.

The Academy also met with the Met Office of the United Kingdom, which has shown interest in setting up its own climate science academy. With this, they are interested in exploring how to share with the Academy's best practices in providing climate training to a wide variety of stakeholders. This is consistent with the recent efforts of the Academy to consolidate the best practices of WCRP Secretariat and IPOs in organizing climate training with a goal of shared learning.

5. Future Science Directions for JSC Consideration

Hosting the 2026 JSC meeting

The Manila Observatory has expressed its interest in hosting the 2026 JSC Session in the Philippines, subject to the approval of the new JSC. The Observatory considers it a privilege to hold this high-level meeting in its part of the world where promotion and translation of climate science is needed now more than ever. The Observatory also deems this occasion appropriate for its purposes as the meeting will coincide with the conclusion of its year-long 160th anniversary celebration. (The Manila Observatory was established in 1865.) The Manila Observatory is also open to hosting the 2027 JSC Session, should the 2026 session be a fully online meeting.

Create new Advisory Board consisting of representatives from WCRP CPs and LHAs

The Academy proposes the creation of an advisory board, with clear terms of reference, which will be composed of representatives from WCRP core project and lighthouse activities, a member of the JSC, EMCR representatives, and stakeholders (e.g., providers and users of the Academy services, and funding agencies). The function of the Advisory Board will be to provide high level input and feedback on future directions of the Academy to the Steering Group and Support Unit. The Academy Steering Group would continue to report to the JSC, and will be responsible for allocating funding.

The inclusion of an advisory board into the Academy structure would foster ease of two-way communication between other WCRP activities and the Academy.

6. New Activities

2024 assessment of the WCRP Academy training catalogue

Central to the Academy's efforts in becoming a hub that connects training providers with recipients is the training catalogue published on its official website. Managed by the Support Unit, the catalogue strives to render a vast array of training opportunities that cater to climate scientists of all career levels, practitioners from various fields, and advocacy groups around the world. Acknowledging the importance of this catalogue, the Academy conducted an assessment of its published events from 2021 to 2024 to identify general trends and characteristics, understand dominant components and themes, and address gaps and limitations of the current offerings.

The Academy saw a significant increase in its training opportunities from its initial formation, registering as many as 45 events in 2024 compared to 3 in 2021. Training events are categorised by the working groups of the Intergovernmental Panel on Climate Change (IPCC). Events can choose more than one group. Of the 97 events listed thus far, the majority listed the Physical Science Basis of Climate Change as one of its themes (74), followed by Climate Change Impacts, Adaptation, and Vulnerability (45), and Mitigation of Climate Change (21). Webinars and conferences were also the most common type of event (30.9% each), while massive open online courses (MOOCs) were the least offered (4.1%). Furthermore, although online and hybrid opportunities remain widely used, the number of in-person events has steadily increased from only 1 in 2022 to 11 in 2024. However, striving to advance accessibility and diversity in its training events, the Academy acknowledges that most hybrid and in-person events were held in Europe (28), followed by Asia (11), and North America (8). South America, Africa, and Australia had only 3, 2, and 1 in-person or hybrid events, respectively. Language barriers were also observed as only 12 events used another language together with English, while only 1 event was conducted in an entirely different language.

Revamping the WCRP Academy website and online catalogue

One of the first tasks of the newly launched WCRP Academy Support Unit was to improve the user experience of both prospective training providers and recipients when accessing the Academy website, and to streamline information on available training opportunities featured on the catalogue. The improved website will be launched in early March 2025, alongside social media campaigns that aim to increase the visibility of the WCRP Academy.

WCRP Future Leaders Programme

To address current climate science training needs and challenges (identified through a series of global stocktake activities), the WCRP Academy has set out to develop the WCRP Future Leaders Programme.

The WCRP Future Leaders Programme is envisioned to accomplish the following components through thoughtfully designed activities over the next two years:

1 Creating a vibrant online community of aspiring climate scientists

The WCRP Academy aims to continuously improve its website and expand its functionalities by creating an *online forum* that will enable prospective training recipients to register their research interests, share training wishlists, receive language support, access additional training resources, provide feedback on past training events, view localized job boards and funding opportunities, and find and interact with like-minded individuals within the community.

2 Increasing opportunities for capacity development

The WCRP Academy will identify and share best practices in delivering climate science training from the most recent experiences of the WCRP community as well as other partners and training providers. The Academy will, as an outcome of its mentoring workshop, provide a scoping report summarising the current state of mentoring in the WCRP community, alongside a proposal for how the WCRP, via the Academy, could incorporate *mentoring* structures and programmes into their activities. The Academy also envisions creating a *fellowship programme* that offers leadership development opportunities to promising early career researchers.

3 Amplifying the visibility and work of the WCRP Academy

The WCRP Academy will increase its visibility within the climate science community through building strategic partnerships with training providers and university consortiums, participating in training events and organizing *roadshows* with the aim of enriching the learning experience, especially of early career researchers. The Academy also envisions building a network of regional champions through organizing a *Climate Leadership Summit* to inspire more young individuals to enter the field of climate science, introduce various resources available for pursuing this field, and collectively work on addressing barriers to access.

WCRP Future Leaders Programme: Components and proposed activities

	Creating a vibrant community of aspiring climate scientists	Increasing opportunities for capacity development	Amplifying the visibility and work of the WCRP Academy
Near-term (Month 1 - 12)	Website updates to include: <ul style="list-style-type: none">- Search Engine Optimization- Usage statistics- Feedback section- Training wishlist Continuous curation of training catalogue, including ability to search by region, language etc	Sharing of best practice tools for organizing climate science training Mentoring best practices Continuous global stocktaking of training needs (including through survey forms on website)	Social media presence and campaigns Exploring strategic partnerships, including with ECR networks Academy presentations at conferences and other events
Medium-term (Month 12 - 24)	Website language support Job board Training resources / Library section	Hosting webinars on climate science training and capacity development Based on best practices, endorse top training events with Academy Badges	Organizing roadshows and side events at strategically important conferences (both global and regional/ local)

	Creating a vibrant community of aspiring climate scientists	Increasing opportunities for capacity development	Amplifying the visibility and work of the WCRP Academy
Long-term (Month 24 - 36)	<p>Online forum for training recipients, allowing them to:</p> <ul style="list-style-type: none"> - register and create their profiles on the website - express interest in / upvote training events, share training wishlists, ideas, fellowship opportunities and other resources with fellow training recipients 	<p>Mentoring programme</p> <p>Academy fellowship programme</p>	<p>Building a network of regional champions for climate science education, through organizing a Climate Leadership Summit</p> <p>Continued Academy roadshows</p>

We emphasize the need for stable funding support, especially with respect to the development and implementation of the WCRP Future Leaders Programme. With this, we kindly ask the help of the JSC in securing such funding via introducing us to their networks and advocating for the WCRP Academy within international organizations and philanthropic circles working in the areas of climate education, STEM education, climate action, climate justice, and gender equality, diversity and social inclusion - to work with the WCRP Academy in shaping the next generation of future climate scientists.

7. General

Climate science training needs and challenges

The WCRP Academy has been conducting a series of stocktaking activities to understand the current landscape of climate training opportunities globally and identify barriers to access. The following results highlight climate science training needs and remaining challenges in addressing these:

- *2021 survey of the needs of prospective training recipients (n=414)*: Higher percentage of pre-PhD qualified respondents, many of whom expressed interest in additional training particularly skills-based training on topics such as data gathering and management, climatology, and climate modeling
- *2022 interviews with Global South climate scientists (n=14)*: Training opportunities remain limited due to lack of local experts, studies, and datasets in the region. Funding and language identified as significant barriers to accessing training. Keen interest in contemporary topics such as climate policy, science communication and sustainable development, with strong need to integrate indigenous and local knowledge.
- *2023 survey of opportunities offered by training providers (n=23)*: Higher percentage of respondents from the Global North, offering training on topics that are heavily inclined towards the physical sciences. All providers offered training events in English.
- *2024 assessment of the WCRP Academy training catalogue (n=97)*: In-person events have been steadily increasing, although online and hybrid training opportunities remain widely used. However, for events with an in-person component (hybrid and in-person), events are commonly held in Europe and rarely organized in Africa, South America, and Asia-Pacific. There is also a massive language barrier in the training opportunities listed in the catalogue.