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The World Academy
of Sciences

THE WORLD ACADEMY OF SCIENCES

for the advancement of science in developing countries

**Capacity Building Programmes
for Science and Technology
in the Global South
*CLIMATE CHANGE***

Max Paoli

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www.twas.org



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of Sciences

10 **REDUCED
INEQUALITIES**



UNESCO-TWAS PROGRAMMES

to support science in the developing world

- **Research Grants**
- **PhD and Postdoctoral Fellowships**
- **Exchange/Mobility Schemes**
- **Seed Grants for New African Principal Investigators**
- **TWAS - IsDB Programmes**
- **Recognizing Scientific Achievements: Awards**
- **Regional Partners**
- **Science Diplomacy**
- **Young Affiliates and TYAN**
- **Climate Action**

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Capacity Building Programmes for Action on Climate

- 1) TWAS – Elsevier Foundation Project Grants
for Climate Action and Gender Equity**
- 2) TWAS – Sida PhD Scholarships
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- 3) TWAS – IPCC Climate Network
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**Women are
disproportionately
impacted by the
climate crisis**

and are key to implementing solutions.

GREENPEACE

Women are disproportionately impacted by the climate crisis

and are key to implementing solutions.

GREENPEACE

Understanding Why Climate Change Impacts Women More Than Men

Climate change deepens existing inequalities.

Women are disproportionately impacted by the climate crisis

Understanding Why Climate Change Impacts Women More Than Men



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UN Chronicle

qualities.

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and are key to implem

GREENPEA



Women...In The Shadow of Climate Change



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Project Grants for Gender Equity and Climate Action

Funded by



THE **ELSEVIER** FOUNDATION



**8 COLLABORATIVE
TEAMS**
have been
AWARDED

in 2022 call for applications

EXAMPLES OF REVIEWERS

Aïda Diongue-Niang
WGI, SYR author
Senegal



Zelina Zaiton Ibrahim
WGII author
Malaysia



Joyashree Roy
WGIII, SR15 author
India



Inception Workshop for grant-winning teams

April 2023, Trieste, Italy

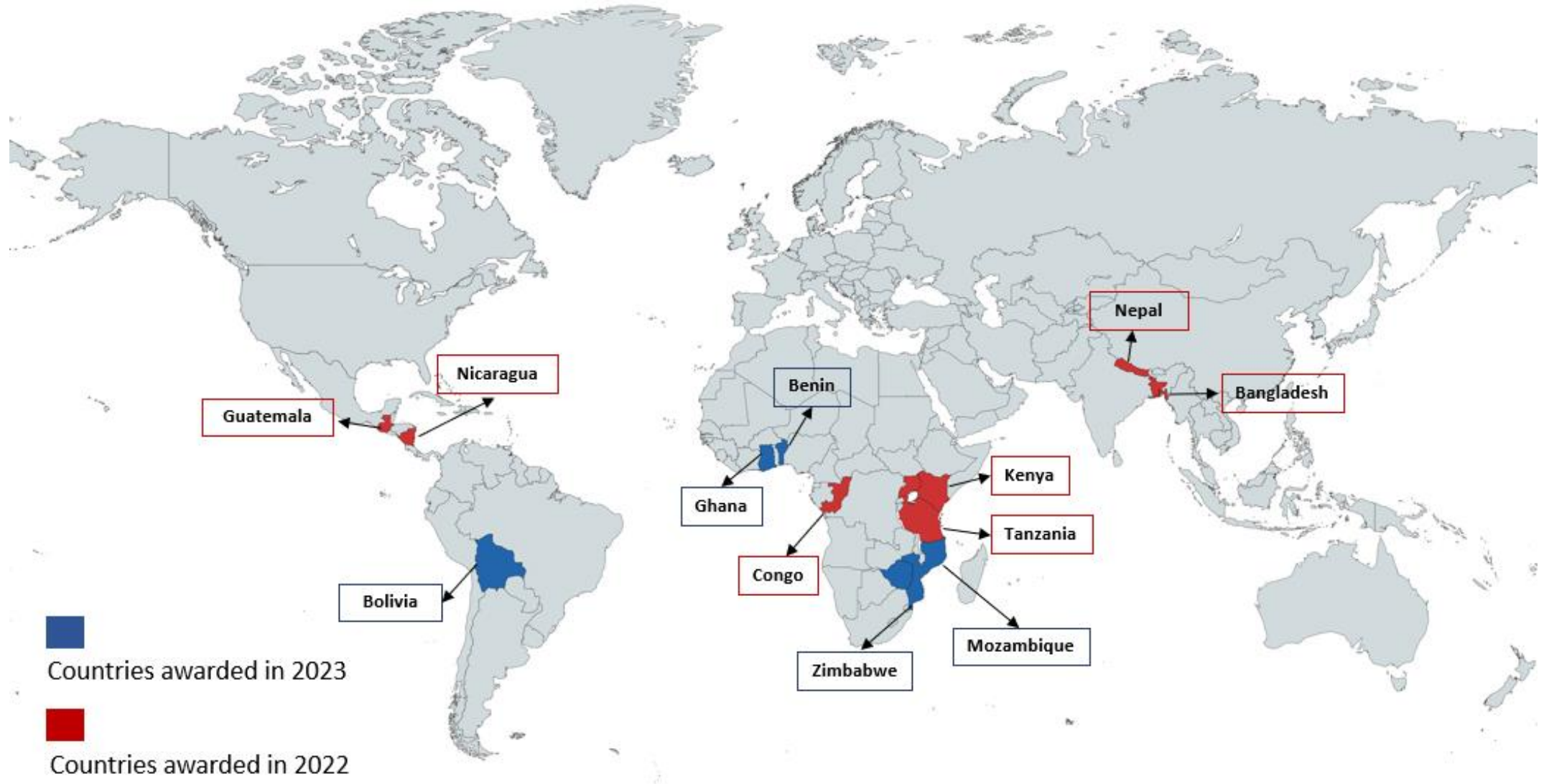




8 TEAMS of WOMEN
awarded in 2022

7 TEAMS of WOMEN
awarded in 2023

COUNTRIES OF GRANT RECIPIENTS



Programme and its Results presented at both COP27 and COP28:

COP27

- **IPCC Gender and Climate Session: 8 Nov 2022**
- **UNESCO Pavilion: 15 Nov 2022**

COP28

- **Greening Education Hub: 4 Dec 2023 - *Hybrid Event***



中国科学院
CHINESE ACADEMY OF SCIENCES



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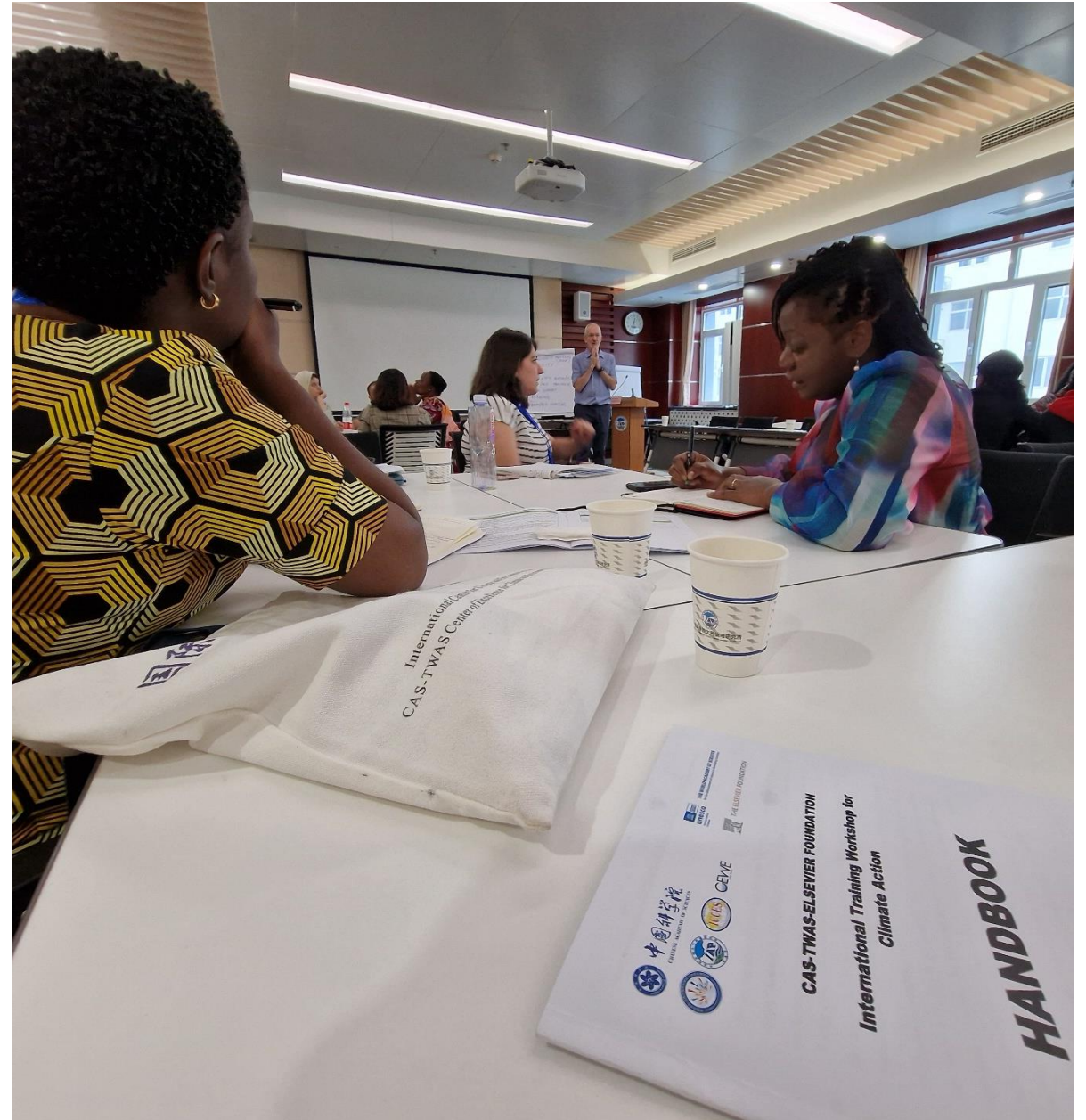
CAS-TWAS-ELSEVIER FOUNDATION

**International Training Workshop for
Climate Action**



CAS-TWAS-ELSEVIER FOUNDATION
International Training Workshop for
Climate Action

Beijing, September 2024



Team Leader:

Dr. Irene Bayiyana, Uganda

Senior Research Officer,
National Agricultural Research Organisation (NARO)

Project title:

*Empowering local women in
Uganda for climate resilient food sovereignty*

Team Members:

- **Ms Paula Iragaba** (Uganda), gender expert and agronomist;
- **Ms Ann Ritah Nanyonjo** (Uganda), gender expert and post-harvest handling;
- **Ms Agnes Alajo** (Uganda), agronomist and Breeder;



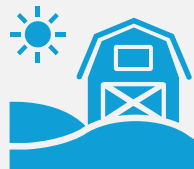
Project Impacts and Community Benefits



Qualitative Survey: Identified challenges like poor yield and susceptibility to diseases, pests, and drought. Provided 3 improved sweet potato varieties to enhance yield, resistance, and drought tolerance, aiming to improve food security and income.



Climate Smart Practices Awareness: Trained women in Iganga and Kamuli on climate change, adaptive practices, and the benefits of sweetpotato. Improved planting techniques were taught, and nutritious sweetpotato vines were distributed.

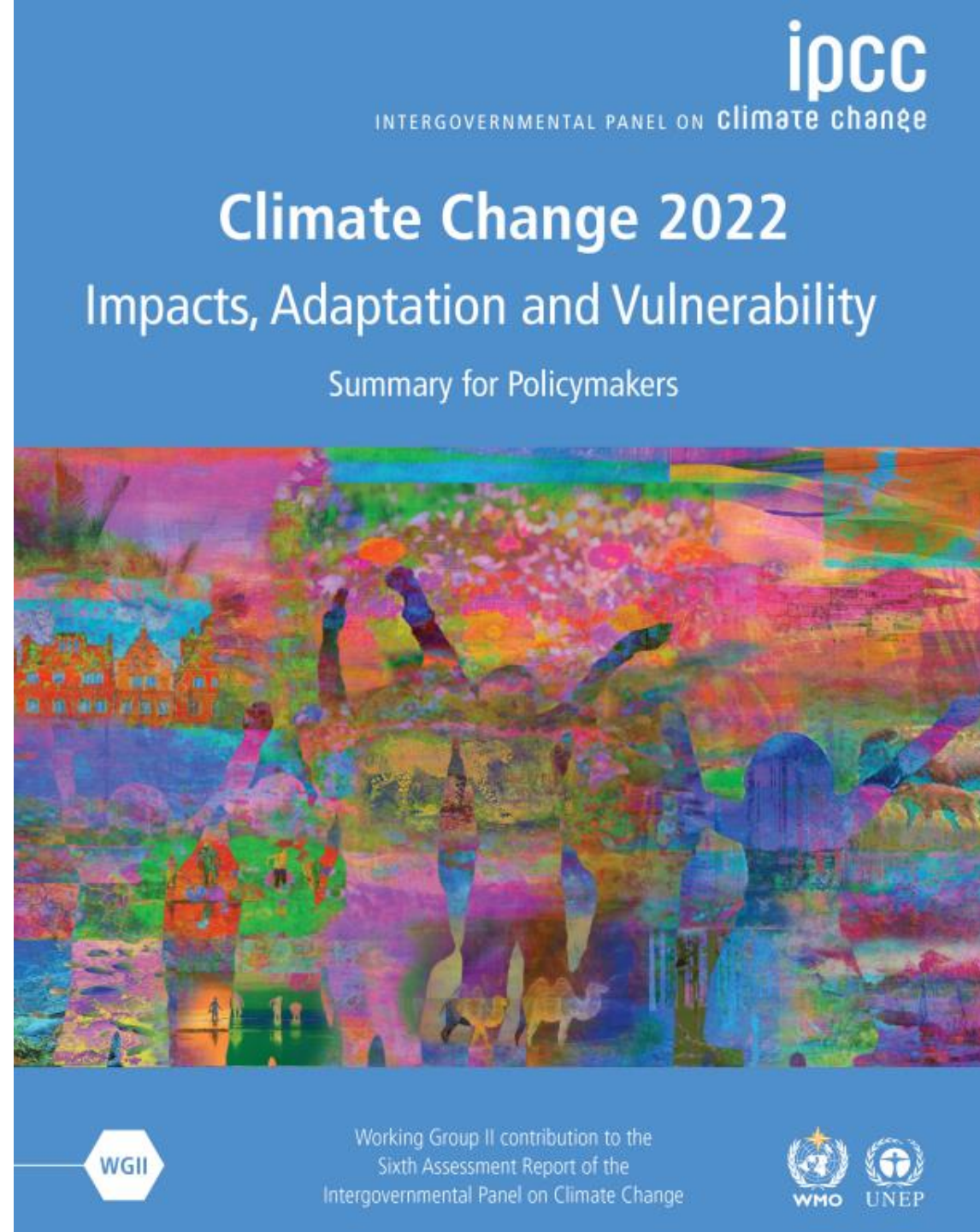


Promotion of Improved Varieties: Provided high-yielding, drought-tolerant sweetpotato varieties to 40 women farmers. Participants applied climate-smart practices to achieve higher yields and food security.

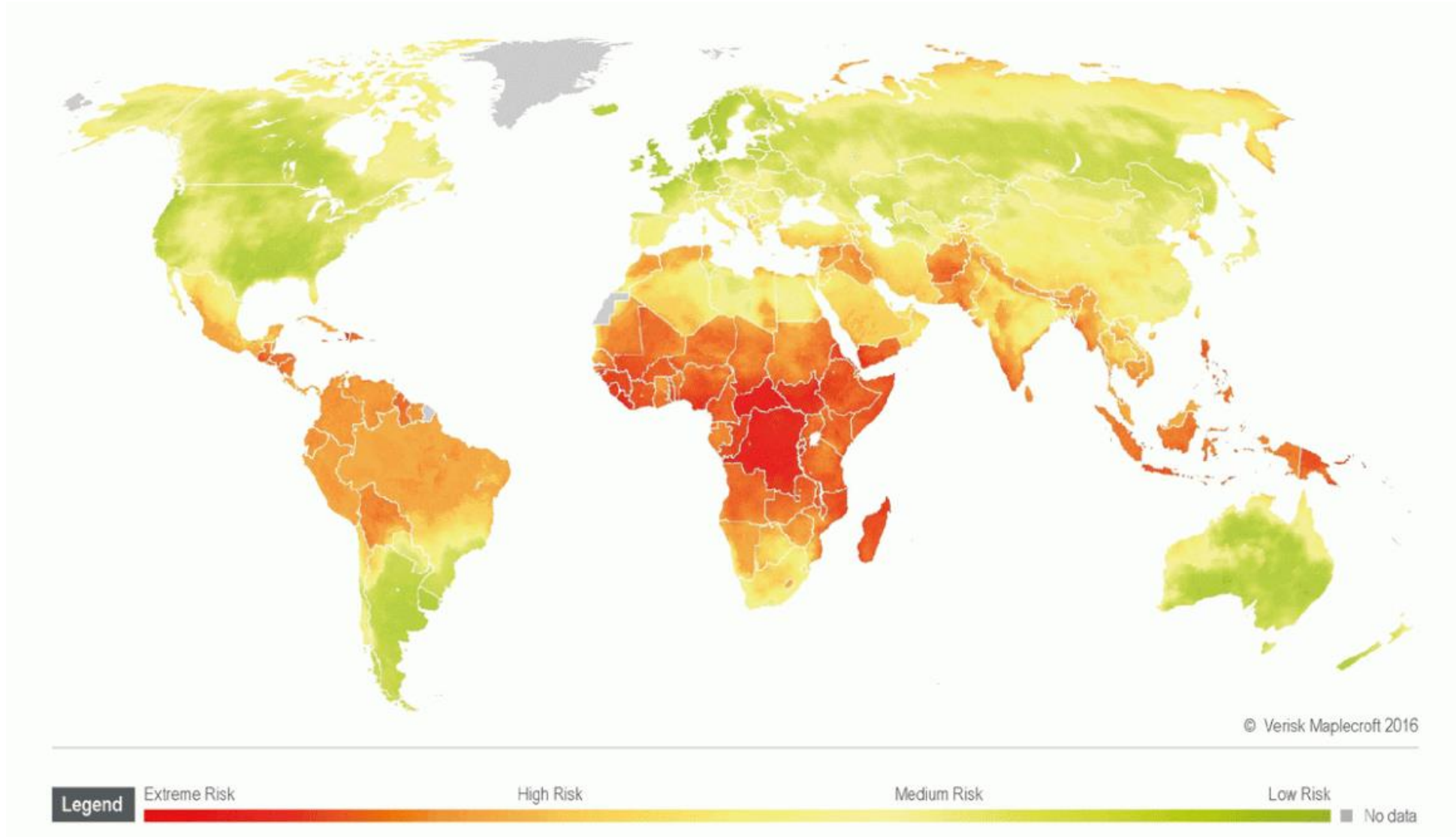
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28.02.2022 –
IPCC report
WGII



DEVELOPING COUNTRIES ARE EXPERIENCING THE WORST DEVASTATION



LEAST DEVELOPED COUNTRIES



Source: [Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States](https://www.un.org/ohrlls/content/profiles-ldcs); <https://www.un.org/ohrlls/content/profiles-ldcs>

LEAST DEVELOPED COUNTRIES (LDCs) ARE THE MOST VULNERABLE:

- poverty
- lack of investment
- limited science



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COP26: Least developed countries need more funds to adapt to climate change

Climate change impacts are increasing in intensity and frequency; highlighting the need for more investment in climate resilient and low-carbon infrastructure.



United Nations
Educational, Scientific and
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Scholarships in Climate Research for PhD Students from Least Developed Countries

Funded by





Image: iStock

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AFRICA

HE should ‘urgently’ train experts in climate change

Francis Kokutse 02 June 2022



African universities have a role to play in training graduates with the requisite skills in climate adaptation and mitigation to help entrepreneurs and policy-makers to understand what these involve in climate change.

<https://www.universityworldnews.com/post.php?story=20220529170126107>

Large number of applications received:

2022 Applications Overview

N° of applications received	456
N° of eligible applications	378
N° of strong applications submitted for evaluation	160
N° of highly evaluated PhD applications – accepted by host supervisors	70-80

13 Scholarships awarded

*Negotiations with
host institutions*

**Funds for 10
Scholarships**

Cornell University, USA
Kathmandu University, Nepal
Mzuzu University, Malawi
Bahir Dar University, Ethiopia
University of Botswana, Botswana
University of Dar es Salaam, Tanzania
National Agricultural University of Benin, Benin
The Abdou Moumouni University in Niamey, Niger
Indian Institute for Human Settlements (IIHS), India
Akonten Appiah-Menka University, Ghana
Université Cheikh Anta Diop de Dakar (UCAD), Senegal
Bangladesh Agricultural University, Bangladesh
African Institute for Mathematical Sciences (AIMS), Rwanda
International Centre of Insect Physiology and Ecology, Kenya
International Institute For Applied Systems Analysis (IIASA), Austria
Singapore University of Technology and Design, Singapore
International Centre for Climate Change and Development, Bangladesh
The Nelson Mandela African Institution of Science and Technology, Tanzania

Dr. Rachel Bezner Kerr,
IPCC Senior Scientist, and Professor of Global
Development with a background in sociology,
environmental science, and international development



Cornell, USA

To study:

Participatory research methods to test the impacts of agroecological approaches on livelihoods, nutrition and sustainable land management for rural communities.

Visits:

6 months in the 1st year

6 months in the 3rd year



Malawi



Ms. Agnes Luhanga,
33-year-old student, Registered at home
at the Mzuzu University, Malawi

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Joint Climate Science Network, Mentorship and Capacity Growth Programme

Building a cohort of early career developing country scientists capable of contributing to IPCC assessment reports

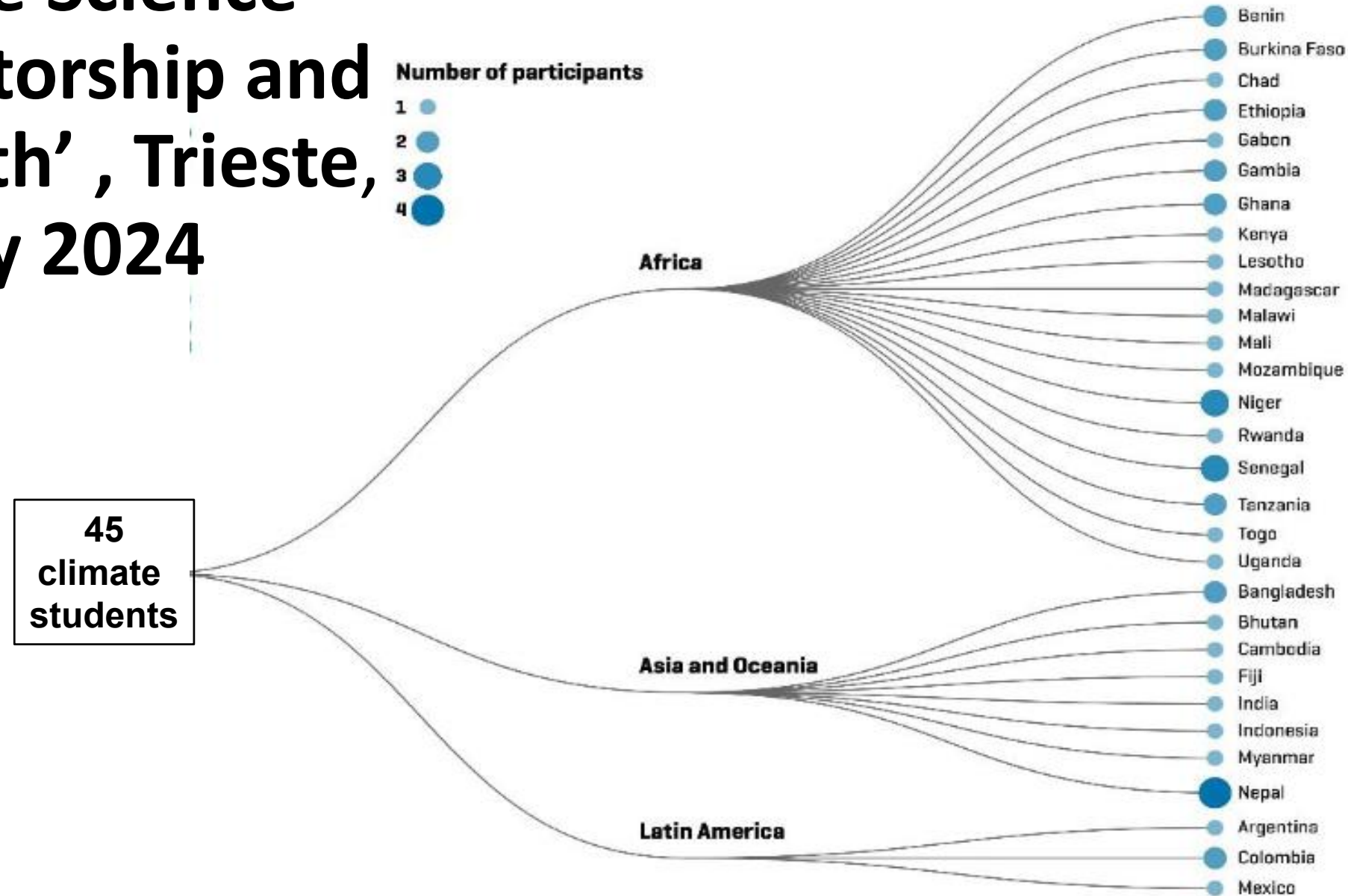
Approved funding: USD 1.145M for a two-phase project across two years including workshops and networking platform

Ko Barrett (Co-Chair IPCC), Anna Pirani (Head IPCC WGI Technical Support Unit) & Max Paoli (UNESCO-TWAS)



TWAS-IPCC Workshop: 'Joint Climate Science Network, Mentorship and Capacity Growth', Trieste, 13-17 May 2024

- 15 IPCC experts/trainers
- 45 scientists from 36 developing countries
- Among the 45 participants, 22 were male scientists and 23 were female scientists.





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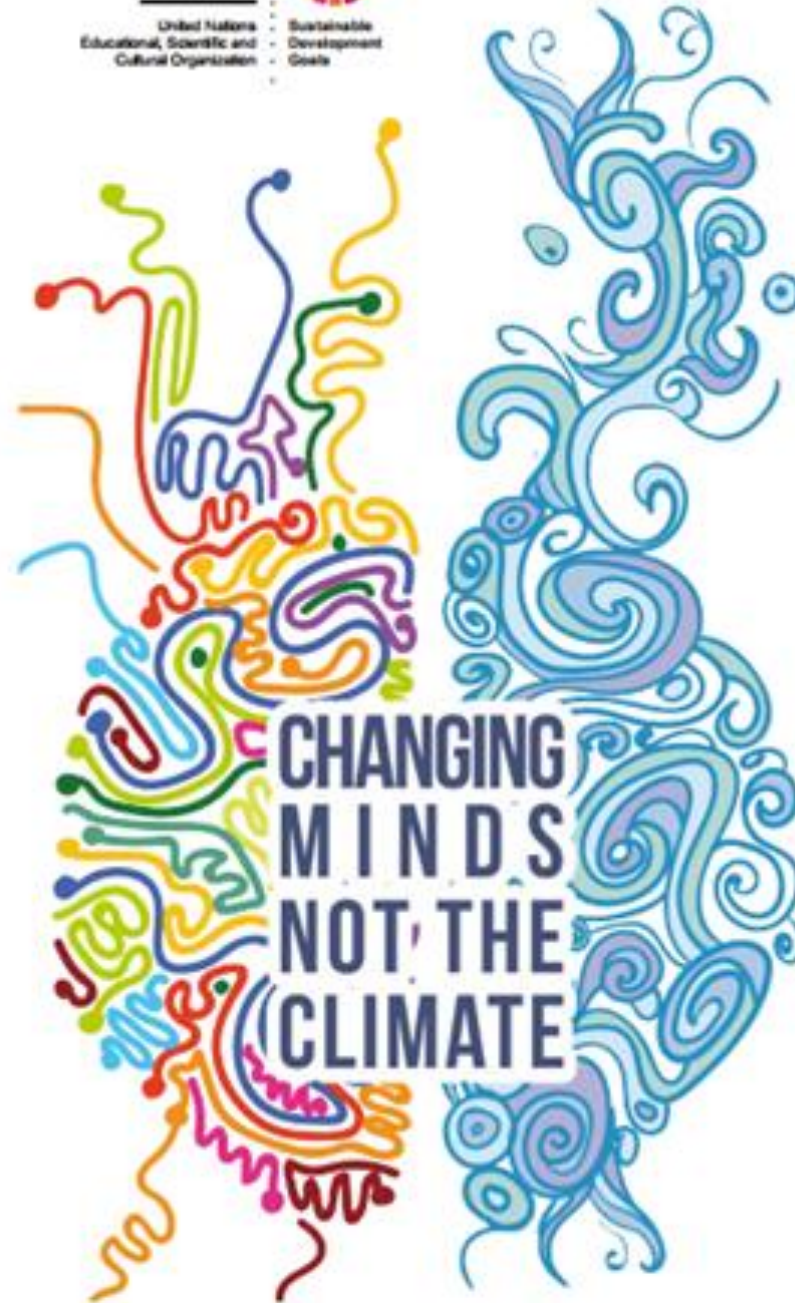


CLIMATE TRAINING WORKSHOP

28-30 Oct 2025, African Union, Addis Ababa, Ethiopia

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