



GLOBE WORKING GROUPS





- DEIA
- Education
- Science
- Technology
 - Accessibility subcommittee
- Cross cutting Subcommittee: Instrumentation





The Diversity, Equity, Inclusion and Accessibility (DEIA) Working Group 2024





■ OUR VISION

- The Global Learning and Observations to Benefit the Environment (GLOBE) Program is committed to promoting a culture of belonging with its community of students, teachers, scientists, and citizen scientists so that all can contribute meaningfully to our understanding of the Earth system.
- GLOBE recognizes that the creation of diverse, equitable, and inclusive practices is central to achieving this goal and seeks to foster an environment that values diversity as a core strength; addresses inequities; and ensures inclusion of all perspectives in guiding the planning and implementation of The GLOBE Program.

■ OUR MISSION

- Our mission is to ensure that GLOBE learners and community members around the world are valued as diverse individuals with different perspectives, and unique ways of thinking. We commit to encouraging open collaboration and communication to build and sustain a diverse, just, equitable, and inclusive program.





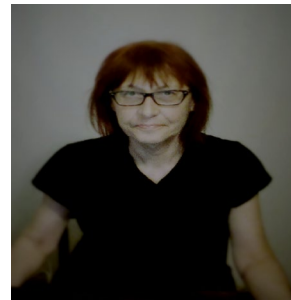
Who We Are



**Nikitah Imani, Chair
North America**



**Juan Felipe Restrepo Mesa, Vice Chair
Latin America and the Caribbean**



**Marina Pavlic, Member
Europe and Eurasia**



**Rafat Jambi, Member
Near East and North Africa**



**Alyssa Na'im
GIO Liaison**



**Rosalba Giarratano, NASA
Liaison to GLOBE DEIA WG
North America**



**Francis Murillo Emralino, Member
Asia and Pacific**



**Beatrice Shiro Oyange, Member
Africa: Kenya**



**Yllias Destin, Evaluation Member
Africa: Benin**





■ GLOBE LANGUAGE AMBASSADORS PROGRAM

- To recognize those GLOBE constituency members who presently contribute their language skills towards making GLOBE materials accessible to all.
- To recruit additional GLOBE constituency members to that end.

GLOBE TEACHERS NETWORK

- To create a vehicle for GLOBE teachers to exchange ideas and thoughts on best practices, challenges and solutions, recommendations, and networks.
- DATA SOVEREIGNTY Sharing data control with communities from which that data is gathered.



- (1) Our proposed Language Ambassadors program seeks to help alleviate some of the linguistic struggles that international community members may face, for example, when trying to understand a protocol. Do you think this initiative could help your region and how?
- (2) Are you willing to participate as a Language Ambassador? In what other ways do you think we might help reduce language barriers and make GLOBE more language accessible?
- (3) Would you like to be part of a Teacher support network in GLOBE that can exchange best practices, etc.?
- (4) Do you think teachers are sufficiently recognized and acknowledged for their contributions to GLOBE? If you not, how do you think we might change that?"
- (5) Is data sovereignty an important issue to you or those you serve in GLOBE? If so, why and how?"
- (6) Have you had experiences you would be willing to share where GLOBE has done well in onboarding students with challenges like neurodiversity, differential physical abilities, or economic impediments into its programs?
- (7) Do you have concerns you would be willing to share regarding accessibility of materials, equipment, and reactants prescribed in the GLOBE protocols in your country or region?



EDUCATION WORKING GROUP





The GLOBE Program

#GLOBEMeeting2024



Education Working Group



Education Working Group, 2024



Working Group Members



Rod Allan A. de Lara

- Chair
- Asia and Pacific: Phillipines
- 2019 - 2024*
- radelara (at) pshs.edu.ph



Ngosse Fall

- Member
- Africa: Senegal
- 2023 - 2025
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Yupaporn Laplai

- Member
- Member at Large: Thailand
- 2024 - 2026
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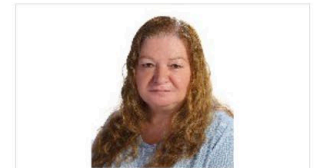
Ülle Kikas

- Member
- Europe and Eurasia: Estonia
- 2021 - 2026*
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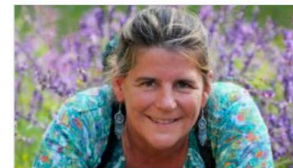
Dario Victor Greni Olivieri

- Member
- Latin America and the Caribbean: Uruguay
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Nahid Nail Jamil Ajluni

- Member
- Near East and North Africa: Jordan
- 2022 - 2025
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Dorian Janney

- NASA Representative for the GLOBE Education WG
- North America: US
- 2020 - 2025
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Yogendra Chitrakar

- Member †
- Asia and Pacific: Nepal
- 2018 - 2024*
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Simon Castro-Wooldrigde

- GIO Liaison
- North America
- sjwooldridge (at) ucar.edu





Mission & Vision

Our Vision

Collaboration within The GLOBE Program to ensure that educational resources and processes are readily accessible to and reflect the needs of the global community.

Our Mission

The Education Working Group is poised to interact with the GIO and other Working Groups to ensure that Earth Systems Science education processes and products are regularly updated and reflect the needs of the growing global community.



EDUCATION WORKING GROUP

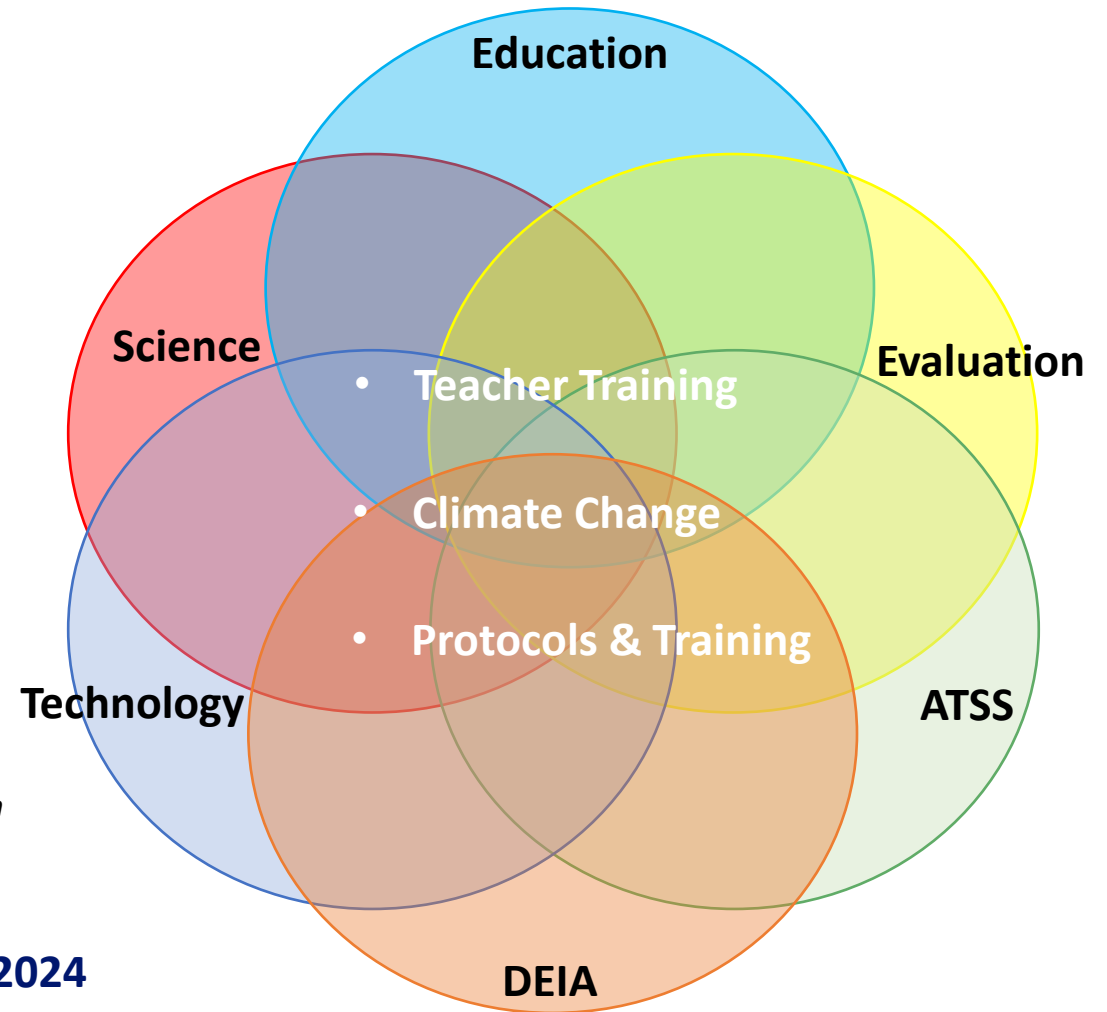
Crosscutting Goals 2024:

1. Teacher Training
2. Climate Change
3. Protocols & Training



Enhancement of T/ MT
 Climate Change Campaign
 Training Standards
 Merit-Based IVSS

EWG STRATEGIC GOALS, 2024



GLOBE Working Groups



What have we been doing?

TEACHER TRAINING : ENHANCEMENT OF THE T / MT CERTIFICATION

- Additional Pathway for Trainer Status thru the “Active Trainer Status”
- Enhancement of Online Forms and Approval Process, and Updated format of Trainer forms
- Trainer Dashboard Notification

REVIEW AND BETA-TESTING OF MATERIALS REPOSITORY TOOL

- Assisted DIS thru UCARs SciEd program in reviewing and testing DIS' Materials Repository Tool

PARTICIPATION AND ENGAGEMENT IN CROSS-CUTTING WORKING GROUPS

- Subcommittee on Technology Solutions
- Subcommittee on “*Instrumentation Project*”





What have we been doing?

MERIT BASED IVSS

- Submitted proposals for the development of a Merit-Based IVSS

REVIEW OF THE GLOBE OBSERVER/ DATA ENTRY APP FOR THE PEDOSPHERE PROTOCOL

- Submitted inputs for the enhancement of Data Entry App for the Pedosphere Protocol

ENGAGING MEMBERS OF THE LIFELONG LEARNING ADVISORY GROUP TO SHARE PILOT PROGRAMS

- Developed [slide set](#) to showcase various efforts with Lifelong Learners and GLOBE





What have we been doing?

IVSS: PROCESS TO SELECT WINNERS, STIPEND AND ASSISTANCE TO THE ANNUAL MEETING

FIRST APPROACH TO THE RUBRIC TO EVALUATE PROJECTS PRESENTED AT THE IVSS

Category	Description	Punctuation
Scientific Relevance	The project addresses a clear and relevant research question for the scientific field.	
	Excellent (4): The research question is highly relevant and has the potential to contribute significantly to the scientific field.	
	Good (3): The research question is clear and relevant, although there may be opportunities for greater depth or innovation.	
	Acceptable (2): The research question is appropriate but could be more specific or have less impact on the scientific field.	
	Insufficient (1): The research question lacks clarity or relevance or is not adequately aligned with the scientific field.	

➤ Rubric to select the winners of each region (Draft)

- Scientific Relevance
- Scientific Method
- Use of GLOBE Observation Protocols
- Data Quality
- Interpretation of Results
- Originality and Creativity
- Environmental or Social Impact
- Presentation and Communication
- Adaptation to the Requirements of the GLOBE Report
- Well-defined Conclusions
- Specific Bibliography Citations
- Level of Student Involvement



Unresolved Issues & Challenges

- Lack of Trainers and Mentor Trainers to sustain the community’s growth
- Low awareness on “Active Trainer Status” as pathway for T/MT accreditation

No. of T/ MTs Per Region, as of July 2024

REGION	Trainers	Mentor Trainers	TOTAL
Asia Pacific	10	14	24
Africa	1	4	5
Europe & Eurasia	29	12	41
Latin America & The Carribean	2	7	9
Near East and North Africa	1	14	15
North America	18	20	38
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TOTAL	61	71	132

No.	COUNTRY	Trainers	Mentor Trainers	TOTAL
1	United States of America	18	20	38
2	Croatia	10	3	13
3	Bhutan	6	3	9
4	Switzerland	6	2	8
5	Kuwait	1	7	8
6	Thailand	1	6	7
7	Estonia	4	2	6
8	Philippines	1	4	5
9	UAE	0	5	5
10	North Macedonia	2	2	4
11	Argentina	1	3	4
12	Czech Republic	2	1	3
13	Ireland	2	0	2
14	South Africa	0	2	2
15	Malta	1	1	2
16	Slovenia	2	0	2
17	India	1	1	2
18	Jordan	0	1	1
19	Australia	1	0	1
20	Nigeria	1	0	1
21	Peru	0	1	1
22	Oman	0	1	1
23	Uganda	0	1	1
24	Chile	0	1	1
25	Benin	0	1	1
26	Germany	0	1	1
27	Columbia	0	1	1
28	Brazil	0	1	1
29	Panama	1	0	1
	TOTAL	61	71	132



Unresolved Issues & Challenges

Climate Change Campaign

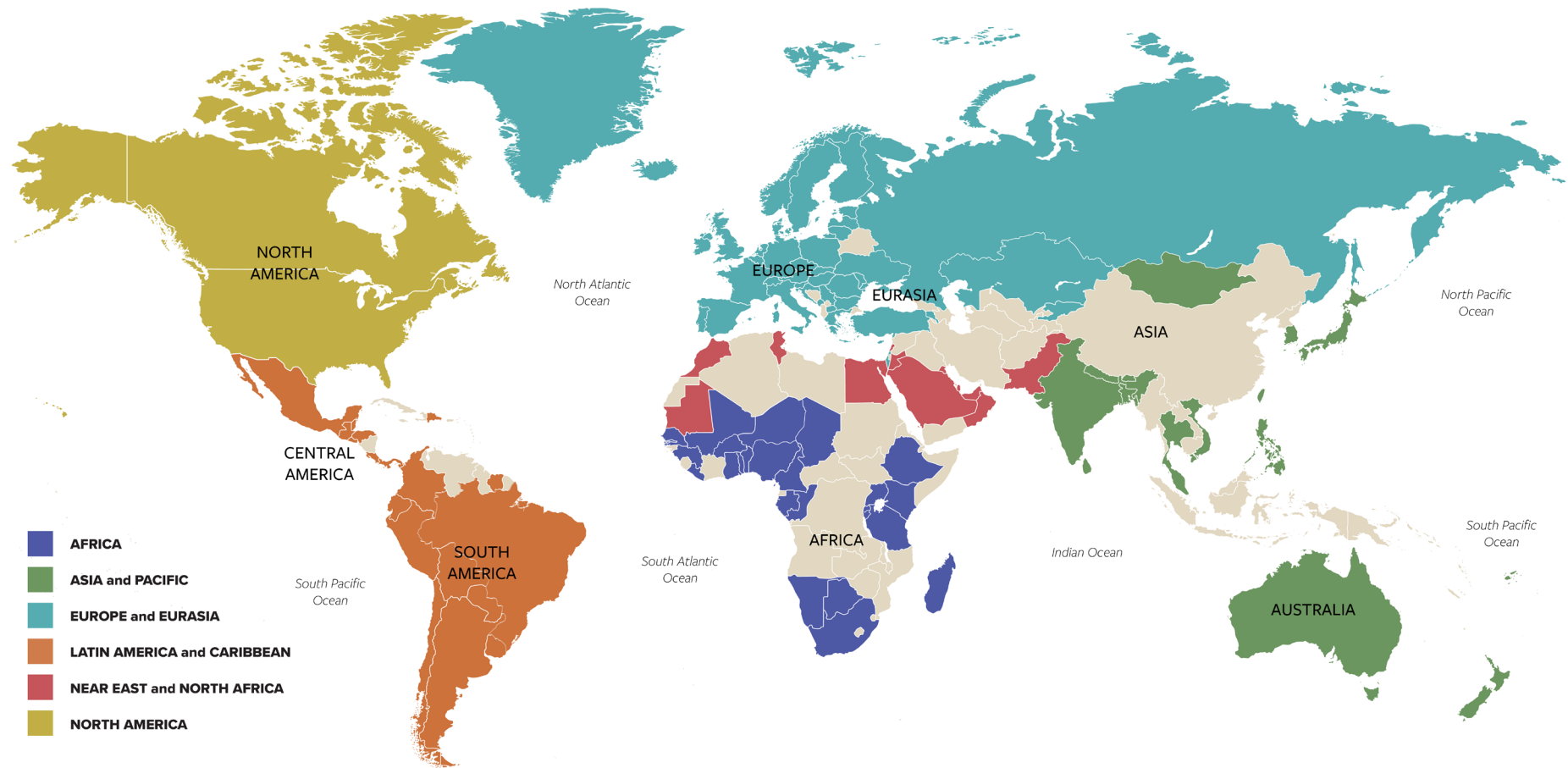
- **Call for Urgency:** Climate change is an emerging theme in all school programs.
- **Call for Action:**
 - ✓ To harmonize our understanding and the way we teach climate change to our students and teachers
 - ✓ To develop a defined action plan for Country Coordinators on teacher training at national or international level;
 - ✓ To develop a training module on climate change for education in collaboration with other working groups, and build a collection of related educational materials and resources;
 - ✓ There is little access to funding and support for face-to-face teacher training;





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2024 Priorities

- Minimum of one mentor trainer per country. Every country coordinator should be a mentor trainer;
- Strategic Plan for 2024 – 2028 by which EWG's can align their plans, programs and priorities;
- Development of a merit-based IVSS
- Development of Training and Learning Materials for Climate Change;
- Checklist of face-to-face workshop





SCIENCE WORKING GROUP





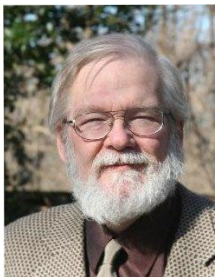
Science WG



Marta Kingsland
Evaluation



North America: TBD



Consultant:
Dixon Butler



Europe and Eurasia:
Refaela Babish



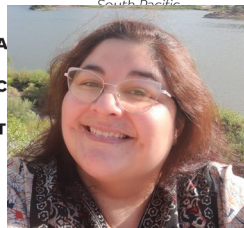
At-Large:
Marilé Colón Robles



Asia & Pacific:
Josephine Joy
Tolentino-Antalan
CHAIR



GIO Liaison:
Rusty Low



Latin America & Caribbean:
Paula Carolina Paez



Africa:
Peter Rugano



Near East and North Africa:
Badar Salim Al Maamari



SWG accomplishments for the past year

- Through a series of in-person and virtual meetings,
 - Identified our **3 top priorities**
 - Scientist involvement, including IVSS and campaigns
 - Instrumentation, accessibility, language of scientific resources
 - Adaptation and resilience
- Identified **GLOBE 30th Anniversary Celebration** ideas
- Marta Kingsland (Eval WG) joined the team
- **Instrument audit**: cross-cutting priorities across all working groups
 - **Instrument sub-committee** formed with Peter Rugano as Chair.



Instruments

- Working groups cross-cutting theme
 - Process for selection of instruments for new protocols;
 - Changing instruments if a protocol is modified or expanded;
 - Audit based on following criteria: cost; availability; accessibility; alternatives
- Subcommittee formed
- Claire at GIO created document for conducting audit
- Instrument audit request for information sent to GLOBE community

Name	Role in Sub-Committee
Peter Rugano	Science (Chair)
Marina Pavlic	DEIA
Juan Felipe	DEIA
Dorian Janney	Education
Buba Tamba	Technology
Claire Mowry	GIO - Project Management Support



Preliminary Ideas

- Cost and accuracy considerations
- Analog Vs Digital Considerations
- Flagging data depending on the use

Do you know how to broaden data collection without compromising quality?

Welcome to the display at **Shareathon-**see and share ideas.



<https://tinyurl.com/GLOBE-SWG2024>



GLOBE Technology Working Group

2024 GLOBE Annual Meeting





GLOBE Tech Working Group Members



Buba Tamba
Africa



Joan Callope
Asia and Pacific



Laura Altin
Europe and Eurasia



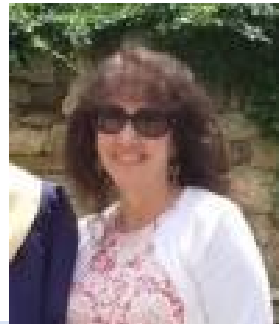
Ana Prieto
Latin America and
Caribbean



Sara Mierzwiak
North America



Kristen Weaver
North America (At-
large)



Lisa Dallas
NASA/DIS



Eslam Khair
GIO



Dave Overoye
DIS



Cornell Lewis
DIS

Chair:
Laura Altin

Co-Chair:
Kristen Weaver

Note-taker:
Sara Mierzwiak



2023-2024 Priorities

A. GLOBE data available to all

B. Facilitate instrument and equipment use

C. Enhance student participation and data collection

D. Review and test DIS updates to website and app





2024-2025 Priorities

- A. Video tutorials for all spheres (script available in multiple languages)
- B. Enhance protocols section of website (Teacher Guide)
- C. Include more connections to NASA data sets
- D. Enhance student participation (ex. simplified ADAT output)
- E. Improve language translations (app, videos, website, etc.)



TECH CHALLENGES TABLE:

Sara, Dave, Laura, Eslam, Joan

TECH PRIORITIES TABLE:

Kristen, Cornell, Buba, Ana





INSTRUMENTATION





Instruments

- **Working groups cross-cutting theme**
 - Process for selection of instruments for new protocols;
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- **Subcommittee formed**
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Subcommittee

Name	Role in Committee
Peter Rugano	Science - CHAIR Subcommittee
Marina Pavlic	DEIA
Juan Felipe	DEIA
Dorian Janney	Education
Buba Tamba	Technology
Claire Mowry	GIO - Project Management Support



Objectives for today

- Summarize findings from initial instrument audit
- Data quality, literacy, and DEIA considerations
- Next steps to expand audit. Review the document that Claire created.
- Practice with instruments.





BREAKOUT SESSIONS





Working Group/ Committee	Room
DEIA	103A
Education	103B
Science	103C
Technology	MPR
Instrumentation Subcommittee	MPR



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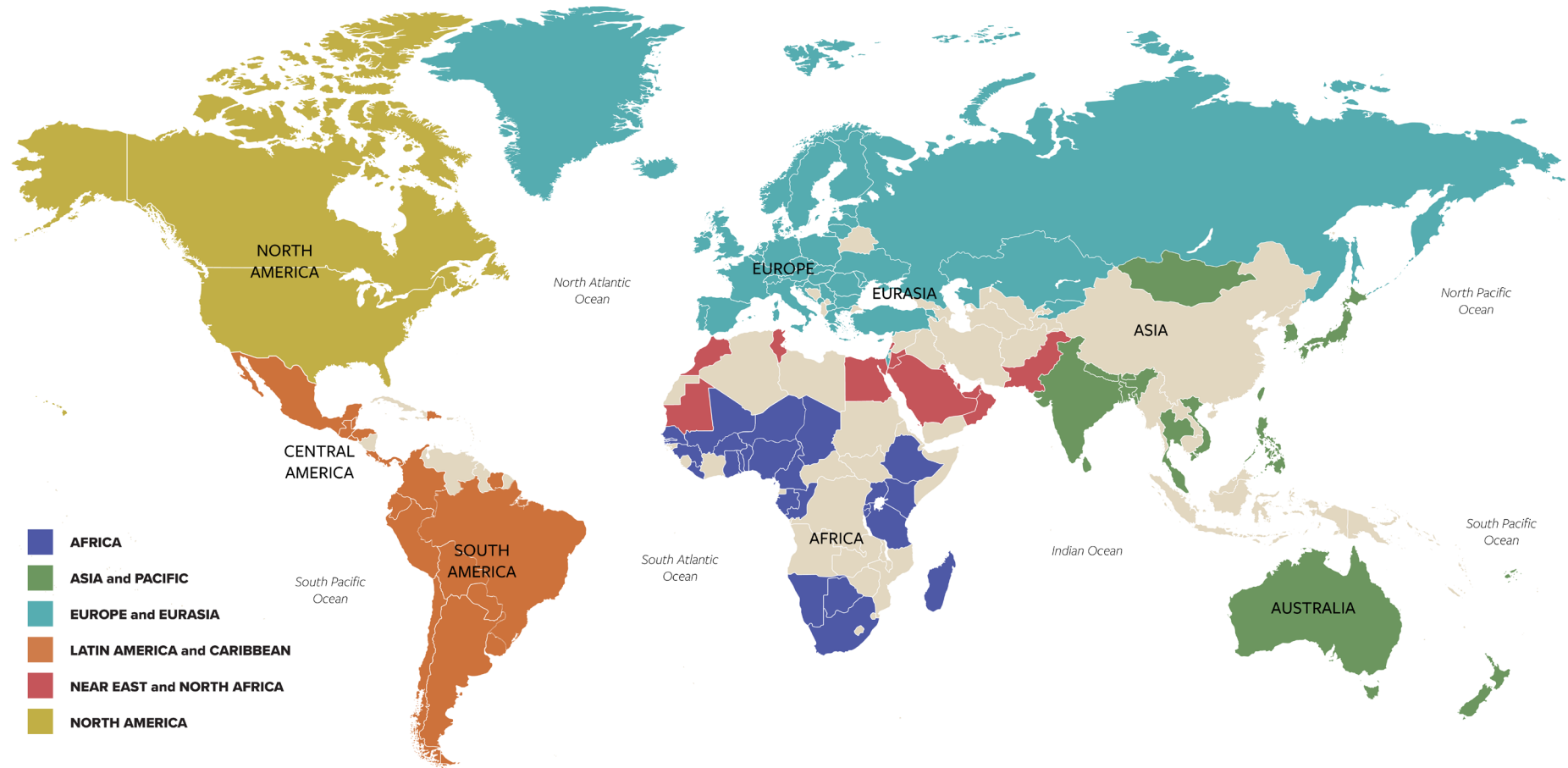
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